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INTERNATIONAL ASSOCIATION OF GERONTOLOGY AND GERIATRICS
Founded 1950

AKADEMİK GERİATRİ DERNEĞİ e-KONGRE 2020

Covid-19 ve Geriatride Güncelleme

17 - 18 Ekim 2020

Bildiri Kitabı

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İÇİNDEKİLER

DAVET

Değerli meslektaşlarımız ve Geriatri Bilim Dalı pratiğine gönül veren tüm sağlık çalışanı Arkadaşlarımız, 3.Uluslararası ve 13. Akademik Geriatri Kongresi, dünya genelindeki COVID-19 infeksiyonu nedeniyle ileri bir tarihe ertelenmişti;

Akademik Geriatri Derneği tarafından her yıl düzenli olarak yapılan Akademik Geriatri Kongresi'nin E-Kongre ve uluslararası nitelikteki güncel verisyonu 17 – 18 Ekim 2020 tarihlerinde online olarak düzenlenecektir.

Ülkemizde yaşlı nüfus 2018 verilerine göre %8,8'dir ve en yaşlı grup en hızlı olarak artmaktadır. Giderek artan yaşlı nüfus oranı nedeniyle tüm sağlık çalışanlarımız yaşlı hastayla daha fazla karşılaşmakta Geriatri ve yaşlı sağlığı hizmetleri her basamakta ve yaklaşık tüm branşlarda, sağlık çalışanları için giderek daha fazla merakla takip edilen bir konu olmaktadır.

Kongremizde, yaşlı hasta ile sık karşılaşan hekim ve sağlık ekibinin yaşlı hastanın özellikleri ve hastalıkları hakkında bilgi sahibi olması, koruyucu önlemler ve tedavi yaklaşımlarının belirlenmesi açısından önemli olan ve ilgi çekmekte olan konular ve yaşlı sağlığı konusundaki yeni gelişmeler gözden geçirilecektir.

Uluslararası nitelikte olan kongremize alanlarında uzman olan değerli ulusal ve uluslararası konuşmacılarımız katılacaktır. 2020 kongremizde uluslararası konuşmacılardan, yaşlıda beslenme konusunda çok sayıda çalışmaya imza atmış, ESPEN "Geriatride Beslenme" özel ilgi grubu yönetim kurulu üyelerinden ve EWGSOP yazar grubu üyelerinden Juergen Bauer (Almanya); ESPEN "Geriatride Beslenme" özel ilgi grubunun başkanı, beslenmede GLIM kriterleri ve EWGSOP yazar grubu üyelerinden Tommy Cederholm (İsveç); osteoporoz ve kemik mineral metabolizması alanında önde gelen isimlerden, IOF başkan yardımcısı ve yönetim kurulu üyesi Serge Ferrari(İsviçre), yaşlıda uygunsuz ilaç kullanımı alanında çok sayıda çalışmanın sahibi ve EuGMS akademik kurul başkanı Mirko Petroviç (Belçika); yaşlıda uyku bozuklukları ve kognisyon-kardiyovasküler hastalıklarla ilişkisi alanlarında çalışmaları olan Fransa Geriatrik Uyku Merkezi Kurucusu ve Başkanı Saban Hakkı Önen (Fransa) ve IASRG kurucusu ve derneğin ilk Yaşlanma ve Uyku Uluslararası toplantısının düzenleyicisi Fannie Önen (Fransa) sunumlarıyla kongremizde yer alacaklardır.

Geriatri bilminin temel konuları olan demans, depresyon, deliryum, inkontinans, bası yaraları, malnütrisyon, sarkopeni, kırılganlık, polifarmasi, düşmeler, Parkinson hastalığı ve yaşlıda diyabet, hipertansiyon, hiperlipidemi, atrial fibrilasyon gibi kronik dâhili hastalıkların tedavileri kongre programımızda yer alacak, güncel yaklaşımlar ile klinik ve laboratuvar güncellemeleri, konferanslarda ve uydu sempozyumlarda tartışılacaktır. Birinci basamak, huzurevi ve bakımevi çalışanlarının sık karşılaştığı problemler kongremizin temel konuları arasında olacaktır. Kongremizde sarkopenide ultrason, malnütrisyon, pratikte nöropsikiyatrik değerlendirme ve evde/kurumda bakım alanlarında, bu alanlarda yetkin öğretim üyelerinin değerli katkı verecekleri ilgi çekici, güncel kurslar düzenlenecektir. Multidisipliner ve interdisipliner çalışma anlayışımıza paralel olarak farklı disiplinlerden konuşmacılar ve konularla, yaşlı sağlığına kapsamlı bir bakış sunulacaktır.

Sizleri klinik çalışmalarınızı ve klinik pratiğiniz sırasında karşılaştıklarınız öğretici olguları, sözlü ve poster bildiriler olarak göndermeniz için davet ediyoruz. Ulusal ve uluslararası nitelikte olacak olan bu bildirilerin kongremiz bilimsel içeriğine katkısı nedeniyle şimdiden teşekkür ediyoruz.

Yaşlı sağlığı ile ilgilenen başta geriatristler olmak üzere, iç hastalıkları uzmanları, aile hekimleri ve uzmanları, nöroloji uzmanları, psikiyatri uzmanları, fizik tedavi uzmanları, hemşire, fizik tedavi uzmanı, ergoterapist, diyetisyen ve sosyal hizmet uzmanları ile huzurevi ve bakım evi, palyatif bakım merkezi çalışanları ve yöneticilerinin kongremize katılımlarının kendileri için faydalı olacağını düşünüyoruz.

Organizasyon komitesi olarak, siz değerli katılımcılarımıza kaliteli bir bilimsel program arzusundayız. Hepinizi kongremizde aramızda görmekten mutluluk duyacağız

Saygılarımla,

Prof. Dr. Gülistan Bahat-Öztürk

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ÖDÜL DEĞERLENDİRME KOMİTESİ

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Meltem Gülhan Halil
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İlker Taşçı
Murat Varlı
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SÖZEL BİLDİRİ LİSTESİ

ACUTE ABDOMEN

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ANTI-AGING IMPLEMENTATIONS

SS - 002

LONGEVITY COMPLIANCE SCALE

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CARDIOVASCULAR SYSTEM DISORDERS

SS - 003

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Hande Selvi Öztorun[1], Remzi Bahşi[2], Tuğba Turgut[3], Deniz Mut Sürmeli[2], Çağlar Coşardereliogğlu[2], Volkan Atmış[2], Ahmet Yalçın[2], Sevgi Aras[2], Murat Varlı[2]
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CARDIOVASCULAR SYSTEM DISORDERS

SS - 004

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Pelin Ünsal[1], Yusuf Ziya Şener[2], Olgun Deniz[1], Gözde Şengül Ayçiçek[3], Yelda Uçar[1], Levent Şahiner[2], Ergün Barış Kaya[2], Enver Atalar[2], Kudret Aytemir[2], Burcu Balam Doğu[1], Mustafa Cankurtaran[1], Meltem Gülhan Halil[1]
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CARDIOVASCULAR SYSTEM DISORDERS

SS - 005

FREQUENCY OF PERIPHERAL ARTERIAL DISEASE IN TURKISH OLDER ADULTS WITH AND WITHOUT OSTEOPOROSIS

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CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 008

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CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 009

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CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

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CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 012

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Ayşenur Sümer Coşkun, Şenay Öztürk Durmaz
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CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 013

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İlknur Rahime Ünal[1], Barış Can Ünal[1], İbrahim Güney[1,2], Muhammet Cemal Kızılarslanoğlu[1,3]
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DEMENTIA, DEPRESSION, DELIRYUM

SS – 014

ASSOCIATION OF NUTRITIONAL STATUS WITH ANXIETY AND DEPRESSION IN ELDERLY INPATIENTS

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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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Dursun Hakan Delibaş[1], Neslihan Eşkut[2], Esin Erdoğan[1], Dilek Top Kartı[2], Özge Yılmaz Küspeci[2], Birkan İlhan[3], Gülistan Bahat[4]
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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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DEMENTIA, DEPRESSION, DELIRYUM

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ENDOCRINE DISEASES

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ENDOCRINE DISEASES

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ENDOCRINE DISEASES

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Güzin Çakmak, Ercüment Öztürk, Zeynel Abidin Öztürk
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GERIATRICS AND COVID-19

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 036

CLINICOPATHOLOGICAL FEATURES AND SURVIVAL OUTCOMES OF OPERATED GERIATRIC BREAST CANCER PATIENTS

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 038

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 040

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

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Güray Güvercin[1], Enes Ay[2], İlknur Rahime Ünal[1], Barış Can Ünal[1], Mehmet Kocabaş[2], Nursena Gürer[2], Emrah Harman[1], İbrahim Güney[1,3], Muhammet Cemal Kızılarslanoğlu[1,4]
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HEMATOLOGIC AND ONCOLOGIC DISORDERS

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 050

EVALUATION OF SURVIVAL OF GERIATRIC ONCOLOGY PATIENTS. DOES SURVIVAL DECREASE AS WE GET OLDER?

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INFECTION DISEASES

SS – 051

ANTIMICROBIAL RESISTANCE RESULTS IN URINE SAMPLES OF ELDERLY

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INFECTION DISEASES

SS – 052

EVALUATION OF THE HEALTHCARE ASCOCIATED INFECTIONS IN ELDERLY IN LAST YEAR

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INFECTION DISEASES

SS – 053

PROGNOSTIC EFFECT OF PNEUMOCOCCAL VACCINE IN PATIENTS WITH PNEUMONIA IN THE GERIATRIC CLINIC

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MALNUTRITION

SS – 054

EVALUATION OF HANDGRIP STRENGHT ACCORDING TO BMI IN ELDERLY INDIVIDUALS

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MALNUTRITION

SS – 055

EVALUATION OF ADHERENCE TO MEDITERRANEAN DIET AND ITS EFFECT ON CLINICAL OUTCOMES IN HOSPITALIZED OLDER ADULTS

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MALNUTRITION

SS – 056

EVALUATION OF NUTRITION STATUS IN ELDERLY STROKE PATIENTS WITH THE 24-HOUR RECALL METHOD

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MALNUTRITION

SS – 057

IS MALNUTRITION MOST ASSOCIATED WITH DYNAMIC OR STATIC PHYSICAL PERFORMANCE?

Şenay Günaydın
İstanbul University Department of Internal Medicine, Division of Geriatrics

MALNUTRITION

SS – 058

NEW NUTRITIONAL INDEX FOR SARCOPENIA AND SARCOPENIC OBESITY

Güzin Çakmak, Gülçimen Soylu, Zeynel Abidin Öztürk
Gaziantep University, Faculty of Medicine, Department of Internal Medicine, Division of Geriatrics

MALNUTRITION

SS – 059

THE RELATIONSHIP BETWEEN NUTRITIONAL STATUS AND DEPRESSION IN PATIENTS ADMITTED TO GERIATRIC CLINIC

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MALNUTRITION

SS – 060

VALIDATION OF GLIM CRITERIA IN HOSPITALIZED INTERNAL MEDICINE PATIENTS, BY DIFFERENT ASPECTS OF MUSCLE ASSESSMENT

Yelda Uçar, Olgun Deniz, Süheyla Çöteli, Pelin Ünsal, Suna Bürkük, Ayşe Şendur, Çağatay Çavuşoğlu, Mustafa Cankurtaran, Burcu Balam Doğu, Meltem Gülhan Halil
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MALNUTRITION

SS – 061

FEMALE FECAL INCONTINENCE AND ITS ASSOCIATION WITH MALNUTRITION

Serdar Ceylan, Mert Esme, Meltem Gülhan Halil, Mustafa Cankurtaran, Burcu Balam Yavuz
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MALNUTRITION

SS – 064

THE EFFECT OF GLIM CRITERIA ON NEGATIVE OUTCOMES AND COMPARISON WITH OTHER TESTS IN HOSPITALIZED ELDERLY PATIENTS

Mehmet Yürüyen, Hatice Deniz, Hale Gülçin Yıldırım, Mehmet Haluk Yücel, Betül Erişmiş, Deniz Yılmaz, Özlem Polat, Mehmet Hurşitoğlu
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MALNUTRITION

SS – 065

DIETARY QUALITY ASSESSMENT IN GERIATRIC OUTPATIENTS

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MALNUTRITION

SS – 066

EVALUATION OF DIETARY PROTEIN INTAKE AND ANTHROPOMETRIC MEASUREMENTS IN OLDER ADULTS

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MALNUTRITION

SS – 067

INVESTIGATION OF AGING-RELATED ANOREXIA, NUTRITIONAL STATUS AND DIETARY DIVERSITY IN GERIATRIC INPATIENTS

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MALNUTRITION

SS – 069

MINI NUTRITIONAL ASSESSMENT AND ITS RELATIONSHIP WITH SOME BIOCHEMICAL PARAMETERS ELDERLY UNDERGOING HEMODIALYSIS

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Kartal Dr. Lütfi Kırdar Training and Research Hospital

MALNUTRITION

SS – 070

IS PROGNOSTIC NUTRITIONAL INDEX USEFUL FOR EVALUATION OF THE NUTRITIONAL STATUS IN ELDERLY PATIENTS?

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MALNUTRITION

SS – 071

ASSESSMENT OF RELATIONSHIP BETWEEN SARCOPENIA, FRAILTY AND MALNUTRITION BY EXPLOITING NEW CRITERIA

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MALNUTRITION

SS – 072

COMPARISON OF THREE NUTRITIONAL SCREENING TOOLS IN THE EVALUATION OF MALNUTRITION IN ELDERLY HEMODIALYSIS PATIENTS

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NEUROLOGIC DISORDERS

SS – 074

INVESTIGATION OF PERIPHERAL INFLAMMATION IN TWO NEURODEGENERATIVE DISEASES OF THE CENTRAL NERVOUS SYSTEM

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 075

LIFETIME DAIRY CONSUMPTION AND HEALTH RELATED QUALITY OF LIFE IN MIDLIFE WOMEN: ISPARTA MENOPAUSE AND HEALTH STUDY

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 076

AGEISM NEVER GETS OLD: RESULTS OF A SURVEY TO UNDERSTAND PREJUDICE AND ATTITUDES TOWARD THE AGED IN THE ERA OF COVID-19

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 077

EVALUATION OF THE RELATIONSHIP BETWEEN DIABETIC NEPHROPATHY AND FRAGILITY IN HEMODIALYSIS PATIENTS

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 078

ANXIETY AND DEPRESSION AMONG GERIATRIC POPULATION DURING THE OUTBREAK OF COVID-19

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 079

VITAMIN D DEFICIENCY IN GERIATRIC PATIENTS

Funda Salgür, Müberra Turan, Hüseyin Doruk
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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 080

ASSOCIATION OF ANTICHOLINERGIC BURDEN WITH COGNITIVE AND PHYSICAL FUNCTIONS IN OLDER ADULTS

Tuba Soysal, Sibel Akın, Nurdan Şentürk Durmuş, Bilge Müge Gökçekuyu, Firuzan Fırat Özer
Erciyes University Faculty of Medicine

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 083

POLYPHARMACY AND POTENTIALLY INAPPROPRIATE MEDICATIONS OF NURSING HOME RESIDENTS; PILL BURDEN AND COMORBIDITY STATUS

Fatma Özge Kayhan Koçak, Emin Taşkıran, Zehra Kosuva Öztürk, Sevnaz Şahin
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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 084

AN OVERVIEW OF A PATIENT PROFILE IN A NEW ESTABLISHED GERIATRIC OUTPATIENT CLINIC

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 085

THE FREQUENCY OF SHORT-TERM MORTALITY IN OLDER PATIENTS IN THE INTENSIVE CARE UNIT AND THE PREDICTORS OF MORTALITY

Zehra Kosuva Öztürk[1], Sinem Sağlanmak Kabadayı[1], Bahattin Gökdemir[1], Saadettin Arman Tav[1], Sibel Akbaş[1], Devrim Bozkurt[2], Zeliha Fulden Saraç[1]
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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 086

THE RELATIONSHIP BETWEEN FRAILTY AND ALPHA KLOTHO PROTEIN IN GERIATRIC PATIENTS

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 087

ANTITHROMBOTIC USAGE RATES IN PATIENTS OVER 65 YEARS OF AGE PRESENTING WITH ACUTE GASTROINTESTINAL BLEEDING

Gözde Şengül Ayçiçek[1], İrfan Karahan[2], Özlem Gül Utku[3], Bilal Ergül[3], Rıdvan Erdin[2], Zekeriya Ülger[1], Dilek Oğuz[3]
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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 088

SERUM LITHIUM LEVELS AND TREATMENT EFFICACY OF GERIATRIC BIPOLAR DISORDER PATIENTS IN LITHIUM MAINTENANCE TREATMENT

Abdullah Burak Uygur
Alanya Alaaddin Keykubat University, Medicine Faculty, Department of Psychiatry

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 089

EXAMINING THE DISTRIBUTION OF PATIENTS OVER 65 YEARS OF AGE WHO APPLIED TO THE INTERNAL MEDICINE CLINIC

Anıl Uçan, Cafer Balcı, Pamir Çerçi
Eskişehir City Hospital

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 090

SOCIOECONOMIC AND CULTURAL FACTORS AS PREDICTORS OF FACIAL SKIN WRINKLING IN ISPARTA MENOPAUSE AND HEALTH STUDY

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 091

GTS-21, AN ALPHA-7 NICOTINIC RECEPTOR AGONIST, AMELIORATES CONTRAST-INDUCED NEPHROPATHY IN RATS

Seçkin Akçay[1], Zarife Özdemir[2], Özlem Tuğçe Çilingir Kaya[3,2], Mustafa Akkiprik[4,2], İrem Peker Eyüpoğlu[4,2], Berrak Yeğen[2], Mehmet Koç[5,2]
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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 092

FACIAL WRINKLING AND REPRODUCTIVE FACTORS IN ISPARTA MENOPAUSE AND HEALTH STUDY

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 094

RELEVANCE OF SELF REPORTED QUALITY OF LIFE WITH GERIATRIC SYNDROMES

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 095

PREVALANCE OF GERIATRIC SYNDROMES AMONG OUTPATIENT CLINICS PATIENTS OVER 60 YEARS

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 096

DETERMINATION OF OLDER ADULTS REQUIRING COMPREHENSIVE GERIATRIC ASSESSMENT IN A FAMILY HEALTH CENTER BY G8 QUESTIONNAIRE

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 097

POTENTIALLY INAPPROPRIATE MEDICATIONS AND TYROSINE KINASE INHIBITORS-DRUG INTERACTIONS IN GERIATRIC PATIENTS

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 098

GERIATRIC SYNDROME PREVALENCE AMONG NONAGENARIANS: A SINGLE CENTER OBSERVATION

Betül Gülsüm Yavuz Veizi, Ekin Oktay Oğuz, Mehmet İlkin Naharcı
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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 099

WHICH MALNUTRITION TEST IS MORE USEFUL IN POLYPHARMACY STUDIES?

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 100

WHICH FRAILTY MEASUREMENT TOOL IS MORE EFFECTIVE IN POLYPHARMACY STUDIES?

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PHYSICAL ACTIVITY

SS – 101

FACTORS ASSOCIATED WITH FUNCTIONALITY IN OLDER OLD

Çağlar Özer Aydın
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PHYSICAL ACTIVITY

SS – 102

ASSOCIATION OF HYPOMAGNESEMIA WITH GERIATRIC SYNDROMES AND MORTALITY

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PHYSICAL ACTIVITY

SS – 103

GAIT AND BALANCE AND ASSOCIATED GERIATRIC SYNDROMES IN OLDER PATIENTS

Firuzan Fırat Özer[1], Sibel Akın[2], Tuba Soysal[2], Bilge Müge Gökçekuyu[2], Nurdan Şentürk[2]
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PHYSICAL ACTIVITY

SS – 104

IS THERE A RELATIONSHIP BETWEEN SARCOPENIC OBESITY AND FRAILTY?

Olgun Deniz[1], Burcu Balam Doğu[2], Mustafa Cankurtaran[2], Meltem Halil[2]
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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 106

EXAMINATION OF OSTEOSARCOPENIA IN PATIENTS OVER 65 YEARS OLD WITH HIP FRACTURE

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 107

THE PREVALENCE OF FALLS AND FACTORS RELATED TO FALLS

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 108

RELATIONSHIP BETWEEN SARCOPENIA AND ACTN3 R577X GENE IN TURKISH OLDER ADULTS

Mustafa Kahraman[1], Banu Özulu Türkmen[2], Gülistan Bahat[2], Ayla Şahin[3], Aynur Dağlar[3], Şükrü Öztürk[3], Ali Sarper Diler[1], Mehmet Akif Karan[2]
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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 109

LIVER ENZYMES AND LOSS OF MUSCLE MASS

Semih Kalyon
Health Sciences University Okmeydanı Education and Research Hospital

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 110

EVALUATION OF THE FREQUENCY OF SARC-F IN PATIENTS OVER 65 YEARS WITH CHRONIC DISEASE

Şükriye Taşçı Karagöl, Nilay Turan
Karadeniz Technical University Faculty of Medicine, Department of Internal Medicine

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 112

COMPARISION OF CLINICAL RISK FACTORS BETWEEN FALLERS AND NON-FALLERS IN OLDER PEOPLE

Firuzan Fırat Özer
Kayseri Şehir Hospital

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 113

EFFECTS OF DIABETIC POLYNEUROPATHY ON PAIN, FUNCTIONAL STATUS AND QUALITY OF LIFE IN KNEE OSTEOARTHRITIS

Mustafa Çorum
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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 114

SITES OF FRAGILITY FRACTURES IN OLDER WOMEN AND MEN WITH AND WITHOUT TYPE 2 DIABETES MELLITUS

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 115

RELATIONSHIP BETWEEEN SERUM ALPHA-KLOTHO AND SARCOPENIA IN OLDER ADULTS

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 116

FECAL INCONTINENCE FREQUENCY AND ITS RELATION WITH HAND GRIP STRENGTH

Mesut Gümüşsoy, Volkan Atmış
Ankara University

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 117

SARCOPENIA IN HOSPITALIZED PATIENTS AND RELATED FACTORS: A MULTICENTER STUDY

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 118

TURKISH ADAPTATION AND VALIDATION OF THE SARCOPENIA QUALITY OF LIFE QUESTIONNAIRE (SARQOL)

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 119

SARCOPENIC OBESITY AND RELATED FACTORS

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 120

THE LONGITUDINAL ASSOCIATIONS OF SARCOPENIA DEFINITIONS WITH ADVERSE OUTCOMES: A COMPARATIVE STUDY

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 121

USING SARC-F QUESTIONNAIRE TO IDENTIFY FRAILTY IN THE OLDER ADULTS

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 122

CUTOFF VALUES TO IDENTIFY LOW MUSCLE MASS BY COMPUTED TOMOGRAPHY AT L3 VERTEBRA LEVEL

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 123

WHICH PARAMETERS AFFECT GERIATRICIANS'ANTIRESORPTIVE DRUG SELECTION

İlker Boğa, Çağatay Çavuşoğlu, Meltem Koca, Yelda Öztürk, Ayşe Şendur, Suna Bürkük, Süheyla Çöteli, Pelin Ünsal, Burcu Balam Doğu, Mustafa Cankurtaran, Meltem Gülhan Halil
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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 124

ASSESSMENT OF OSTEOPOROSIS AND OSTEOPOROSIS SCREENING STATUS IN ELDERLY PEOPLE WITH AND WITHOUT DIABETES MELLITUS

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 125

THE EFFECT OF OSTEOSARCOPENIA ON COMPREHENSIVE GERIATRIC ASSESSMENT, CLINICAL FRAILTY SCORE AND MORTALITY.

Hande Selvi Öztorun[1], Remzi Bahşi[2], Tuğba Turgut[3], Deniz Mut Sürmeli[2], Çağlar Coşardereliogğlu[2], Volkan Atmış[2], Ahmet Yalçın[2], Sevgi Aras[2], Murat Varlı[2]
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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 126

BONE DENSITY LOSS AND OSTEOPOROSIS AMONG OLDER ADULTS WITH ALZHEIMER'S DISEASE, VASCULAR DEMENTIA, AND MIXED DEMENTIA

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 127

PERFORMANCE OF SARC-F TO FIND CASES OF PROBABLE SARCOPENIA IN OLDER ADULTS

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 128

SARCOPENIA EVALUATION WITH COMPUTERIZED TOMOGRAPHY IN TRAUMA PATIENTS

Mehtap Ilgar, Funda Datlı Yakaryılmaz, Mehmet Akçiçek, Serkan Ünlü
Malatya Training and Research Hospital

UROLOGICAL DISORDERS

SS – 129

THE PREVALENCE AND RISK FACTORS FOR URINARY INCONTINENCE AMONG INPATIENTS, A MULTICENTER STUDY FROM TURKEY, LPZ STUDY

Sumru Savaş[1], Bülent Saka[2], Sibel Akın[3], İlker Taşçı[4], Pınar Tosun Taşar[5], Aslı Tufan[6], Hakan Yavuzer[7], Cafer Balcı[8], Gülbüz Sezgin[9], Mehmet Akif Karan[2], Fatma Özge Kayhan Koçak[1], Zeynel Abidin Öztürk[10], Murat Varlı[11], Deniz Suna Erdinçler[7], Mert Eşme[8], Selim Nalbant[9], Mustafa Cankurtaran[8], Firuzan Fırat Özer[3], Teslime Atlı[12], Fehmi Akçiçek[1]
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UROLOGICAL DISORDERS

SS – 130

A SINGLE-CENTERED PROSPECTIVE STUDY ON EFFICACY OF URINARY INCONTINENCE TREATMENT ON QUALITY OF LIFE AND DEPRESSION

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UROLOGICAL DISORDERS

SS – 131

THE RELATIONSHIP BETWEEN PELVIC FLOOR MUSCLE STRENGTH, HANDGRIP STRENGTH AND SARCOPENIA IN URINARY INCONTINENCE PATIENTS

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UROLOGICAL DISORDERS

SS – 133

THE COMPARISON OF KIDNEY BIOPSY RESULTS BETWEEN GERIATRIC AND NON-GERIATRIC PATIENTS: SINGLE CENTER EXPERIENCE

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PHYSICAL ACTIVITY

SS – 134

ASSOCIATIONS BETWEEN POLYPHARMACY AND PHYSICAL PERFORMANCE MEASURES IN OLDER ADULTS

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Akademik Geriatri Derneği

e-Kongre 2020

COVID-19 ve Geriatride Güncelleme

KONUŞMACI METİNLERİ

TREATMENT IN DIFFICULT CASES –GENERALISED ANXIETY DISORDER IN OLDER ADULTS

Ahmet Kokurcan

Dışkapı Yıldırım Beyazıt Training and Research Hospital · Psychiatry

Anxiety disorders are common psychiatric disorders in adults, and they also show a high rate in older age group. The rate of anxiety disorders in older life is considered less prevalent compared to younger adults. However, difficulties in assessing and diagnosing anxiety disorders in older age might have an impact on the low prevalence of anxiety disorders in the elderly. Furthermore, generalized anxiety disorder (GAD) is suggested to show a similar prevalence in young and older adults. GAD causes a wide range of functional impairment, and treatment response rates in older patients with GAD is suggested to be lower than in younger adults. The treatment of anxiety disorders in older life includes several challenges. At first, older adults are less eager to seek help from mental health professionals, and also older people are more likely to drop out of the medical treatment.

According to current literature, pharmacotherapy is more effective than psychotherapy for older GAD patients. Selective serotonin reuptake inhibitors (SSRIs) are considered as the first-line treatment for older patients with GAD. SSRIs are efficacious in treating GAD in older age, and their side effect profile do not show a big difference between younger and older adults. In addition, selective serotonin and noradrenaline reuptake inhibitors (SNRIs) can be administered in older adults with GAD. Venlafaxine and duloxetine showed a similar efficiency with SSRIs in previous studies, and SNRIs are also relatively well tolerated in older age. Despite that, there are some clinical risks that should be monitored in older patients taking SSRIs or SNRIs, such as increasing risk for falls, gastrointestinal bleeding, and hyponatremia. Furthermore, changes of pharmacokinetics and pharmacodynamics in older age require a comprehensive assessment in the older adults with GAD.

Few studies have focused on second-line therapeutic strategies in treatment-resistant patients with GAD in the elderly. If there is no sufficient response to the applicable doses of SSRI/SNRI monotherapy in older adults, psychotherapy can be applied in older adults. Although psychotherapy was not superior over pharmacotherapy in older adults with GAD, combination of psychotherapy and SSRI treatment improved anxiety symptoms and reduced relapse rates in few clinical studies. In addition, psychotherapy does not have a side-effect and it can be used in all patients with GAD. If there is no possibility to apply psychotherapy or no sufficient response to combination of SSRIs/SNRIs and psychotherapy, other treatment options should be considered. There is little high quality evidence on second-line phatrmacotherapy in older patients with GAD in the current literature. Mirtazapine was tried in the treatment of GAD in the elderly and some studies showed its efficacy in older patients with GAD. Mirtazapine also improved sleep and appetite in older patients with GAD. Benzodiazepines (BDZ) are among the most commonly used medications for GAD treatment in older adults. BDZ can be administered in treatment-resistant patients with GAD in low doses for a short-term. However, side effects of mirtazapine and the benzodiazepines should be examined carefully in the elderly. In addition, quetiapine has demonstrated efficacy both in monotherapy and in a combination with SSRIs in some studies. On the other hand, quetiapine showed several side effects in the elderly, such as drowsiness, dry mouth, dizziness, etc. Thus, those side effects of quetiapine should be considered in older patients with GAD. There were also few studies on the efficacy of pregabalin, buspirone, and risperidone in older patients with GAD, however, the evidence on the efficacy of those drugs is not satisfactory. Tricyclic antidepressants (TCA) and irreversible monoamine oxidase inhibitors (MAOI) should not be applied if there is another treatment option because of their safety concerns in the elderly.

MANAGEMENT OF AGITATION IN DEMENTIA

Bilge Bilgin Kapucu
MD, Psychiatry Specialist

The clinical symptoms of dementia consist of cognitive, functional and behavioural impairments. In dementia, first-line interventions and treatments are aimed at remediating the cognitive symptomatology. As the effects of cognitive remedial drugs are well-known, for clinicans, managing cognitive impairment is easier compared to the treatment of behavioural and psychological symptoms of dementia (BPSD). BPSD are frustrating for patients, family members, caregivers and clinicans. While sedative and antipsychotic medications are widely used to overcome the problematic symptoms, whenever possible, understanding the actual reasons behind patients' agression and anxiety should be given priority. Medication should not risk the peculiar necessities of the patients. In some cases, minimal non- pharmacological interventions may contribute to better alleviating the symptoms.

HOW TO RECOGNIZE MALNUTRITION IN ELDERLY? NEW DIAGNOSTIC CRITERIA

Birkan İlhan

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Malnutrition (MN) may occur as a consequence of inadequate intake alone or in association with disease-activated physiologic mechanisms that affect body metabolism, composition, and appetite. 40% to 50% of noninstitutionalized older adults are at moderate to high risk for nutritional problems. 12% to 50% of hospitalized older persons have one or more nutritional inadequacies—with MN being the most common. Body weight should be recorded at all patient visits. Weight change should be expressed as a percentage of change from past to current weight, because proportional weight change helps account for variability in baseline weight and appears to be the most clinically relevant measure. There are screening tests for MN in older adults. Screening and diagnostic tests are important to detect MN or risk of MN, causes of MN, and consequences of MN. Recently Global Leadership Initiative on Malnutrition (GLIM) criteria is created as a global consensus around core diagnostic criteria for MN in adults in clinical settings. GLIM (Table 1) includes three phenotypic criteria (non-volitional weight loss, low body mass index, and reduced muscle mass) and two etiologic criteria (reduced food intake or assimilation, and inflammation or disease burden). To diagnose malnutrition at least one phenotypic criterion and one etiologic criterion should be present. Phenotypic metrics for grading severity as Stage 1 (moderate) and Stage 2 (severe) malnutrition are proposed (Table 2). An etiology-based diagnosis classification is endorsed by GLIM consistent with those suggested previously by the International Consensus Guideline Committee, the AND/ASPEN Guidelines, and the ESPEN Guidelines. The classification includes MN related to chronic disease with inflammation, MN related to chronic disease with minimal or no perceived inflammation, MN related to acute disease or injury with severe inflammation, and MN related to starvation including hunger/food shortage associated with socioeconomic or environmental factors. The recommended approach supports classification of MN into four etiology-related diagnosis categories.

Table 1. Phenotypic and etiologic criteria for the diagnosis of malnutrition

Phenotypic Criteria			*Etiologic Criteria*	
Weight loss (%)	Low BMI (kg/m^2)	Reduced muscle mass	Reduced food intake or assimilation	Inflammation
>5% within past 6 months	<20 if < 70 years	Reduced by validated body composition measuring techniques	<50% of ER > 1 week	Acute disease/injury
>10% beyond 6 months	<22 if >70 years		Any reduction for >2 weeks	Chronic disease-related
			Any chronic GI condition that adversely impacts food assimilation or absorption	

Table 2. Thresholds for severity grading of malnutrition into Stage 1 (Moderate) and Stage 2 (Severe) malnutrition

	Phenotypic Criteria [a]		
	Weight loss (%)	Low BMI (kg/m^2) [b]	Reduced muscle mass [c]
Stage 1 / Moderate Malnutrition (Requires 1 phenotypic criterion that meets this grade)	5-10% within the past 6 mo, or 10-20% beyond 6 mo	<20 if < 70 yr, <22 if >70 yr	Mild to moderate deficit (per validated assessment methods e see below)
Stage 2 / Severe Malnutrition (Requires 1 phenotypic criterion that meets this grade)	>10% within the past 6 mo, or >20% beyond 6 mo	<18.5 if < 70 yr, <20 if >70 yr	Severe deficit (per validated assessment methods e see below)

[a] Severity grading is based upon the noted phenotypic criteria. [b] Further research is needed to secure consensus reference BMI data for Asian populations in clinical settings. [c] For example appendicular lean mass index (ALMI, kg/m^2) by dual-energy absorptiometry or corresponding standards using other body composition methods like bioelectrical impedance analysis (BIA), CT or MRI. When not available or by regional preference, physical examination or standard anthropometric measures like mid-arm muscle or calf circumferences may be used. Functional assessments like hand-grip strength may be used as a supportive measure.

ORAL AND ENTERAL NUTRITION PRODUCTS BENEFIT-COST EFFECTIVENESS ANALYSIS

Tuğba Önaçan
MD, Internal Medicine Specialist, Gaziantep

The products which commercially produced for special medical purposes by industry are called dietary foods. They are always sterile also lactose and gluten free. Oral nutrition supplements are generally liquid, but they can also be thickened or powdered, cold or hot-use or in the form of sweets. The products contain vitamins and trace elements that the patient needs daily.

If a patient has a functioning gut but is unable or unwilling to eat sufficient to meet his/her nutritional needs, various options of enteral feeding can be considered. In principle, feeding solutions should be introduced to the gastrointestinal tract at the point where it is possible to absorb them. It is also possible to use modified feeds e.g. peptide based formulae to overcome gastrointestinal incapacity thereby avoiding the need for parenteral nutrition.

Commercial products are generally 4 types;

1. Polymeric products (standart Formula)
2. Monomeric(elemental) and oligomeric(semielemental) products
3. Disease specific products
4. Immun-modulating formula

Contraindication of enteral nutrition:

- Failure of intestinal function or postoprative stasis
- Complete intestinal obstruction
- Inability to access the gut e.g. severe burns, multiple trauma.
- High loss intestinal fistulaea.
- Relative contraindication to tube feeding is also increased likelihood of opportunistic infection e.g. maxillo-facial surgery or oncology treatments–ethical considerations e.g. terminal care.

Use of oral nutritional products:

Unopened boxes / bottles:

- It should be stored at room temperature (15 °C – 25 °C).
- It must be shaken before use. If the opened boxes are outside, they should be consumed within 8 hours.

Opened boxes:

If it is standing outside and at a temperature higher than 25 °C, it should be consumed within a maximum of 4 hours. Opened boxes can be stored for 24 hours in the refrigerator. Boxes/bottles taken out of the refrigerator should be allowed to reach room temperature before use.

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Yapmakta olduğum sunumda kullandığım bilgi, veri, görüşler, araştırmalar, makaleler ve bunların dayandığı bilgi, çalışma ve yayınlar ve diğer bilimsel görüşlerin sunumumda kullanılması ile ilgili sorumluluk şahsıma ait olup, herhangi bir çıkar çatışmam bulunmadığını beyan ederim.

TREATMENT RESISTANT DEPRESSION IN OLD AGE

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Depressive illness in the older population is a common and serious health concern that is associated with impaired functioning, neurodegeneration, excessive use of health care sources and increased mortality. Despite all the risk that came up, diagnosis and treatment of depression are sometimes complicated. %30 of the depressed seniors don't respond to two adequate antidepressant trials and diagnosed as treatment resistant depression. Augmentation of antidepressant, psychotherapies and neuromodulation treatments come up in that condition. In this speech we will outline the definition of treatment resistant and later discuss intervention methods.

GENERAL APPROACH TO TREMOR AND *OTHER* HYPERKINETIC DISORDERS IN GERIATRIC PATIENTS

Yıldız Değirmenci

Prof. Dr. , Düzce University Faculty of Medicine, Düzce

Hyperkinetic movement disorders are a group of neurological symptoms or diseases that present with excessive, abnormal involuntary movements so called *hyperkinesias.* Hyperkinetic movement disorders are heterogeneous group of signs or symptoms including tremors, chorea, athetosis, ballism, dystonia, myoclonus and tics. However, akathisia, tardive syndromes, and stereotypies of various types can also be seen. In this context of widespread clinical manifestation, the mandatory step in the general approach to hyperkinetic disorders is to describe the phenomenology of the movement in order to make an accurate diagnosis. This is often straightforward but quite challenging when the movements do not fall neatly into a single descriptive category. Secondary step of an algorithmic approach should be the investigation of the possible aetiologies which may vary in between the ages. They are more prone to be hereditary when occurred in the early childhood, while previous structural, infectious, toxic, metabolic disorders, drugs, as well as other neurological diseases may play an important role in the aetiology when hyperkinetic disorders present in adults and geriatric population. Functional movement disorders in the setting of a hyperkinetic disorder should be excluded regardless of ages. The goal of this speech is to discuss tremor and other hyperkinetic disorders from the aspects of diagnosis, differential algorithms and treatment strategies in geriatric population.

Keywords: hyperkinetic movement disorders, general approach, geriatric population.

CLINICAL ASSESSMENT OF PATIENTS WITH DEMENTIA
Taking Medical History and Cognitive Examination

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Cognitive disorders are clinical indicators of pathological processes in which neurocognitive networks, the main structures of mental functions in the central nervous system, are selectively affected. Dementia is a clinical syndrome characterized by deterioration of cognitive abilities that affects the usual functionality in daily living activities. There are many diseases that can cause dementia clinical syndrome and lead to selective cell loss in different neurocognitive networks. Along with this variety, the cognitive profiles of these diseases also differ. Therefore, a good anamnesis is very important for differential diagnosis in a patient with dementia.

Since the patients with dementia have especially cognitive problems and accompanying findings that affect the daily living activities, a different approach from rather than conventional neurological examination should be considered. In addition to anamnesis; neuropsychological tests, structural or functional imaging, and biomarkers contribute to differential diagnosis.

In anamnesis, the patients' complaints are addressed under three core headings: 1) cognitive, 2) behavioral, 3) functional. Apart from these, complaints about motor, autonomous systems, sleep disorders and smelling problems should be questioned as secondary findings. When taking an anamnesis, a relative who is often in a close contact with the patient should be questioned. The initial course of the complaints (insidious, acute or subacute) and the progression (static, chronic, continuous, or rapid) of the disease should be recorded.

When assessing the cognitive problems, complaints which could be related to memory, attention, executive functions, language skills, visual-spatial perception, apraxia, and social cognition should be noted, and when insufficient, should be questioned through examples.

As behavioral changes, affective and psychotic disorder features such as depression, anxiety disorders, disinhibition, apathy, impulsivity and loss of empathy, and observable behavior disorders should be questioned.

The level of the functionality should be questioned. If possible, the relatives of the patient should be questioned carefully in this respect, especially considering that in early stages patients may tend to deny the symptoms. Changes in dietary habits should also be considered.

Symptoms such as slowness in movements, gait, gaze, facial expression, speech, swallowing problems, tremor, asymmetrical clumsy-useless hand, weakness, muscular atrophy or fasiculations should be recorded as the accompanying findings.

The presence of accompanying symptoms emerging from autonomous nervous system such as incontinence, impotence, orthostasis, constipation, and excessive sweating should be questioned.

Sleep disorders or parasomnias are other problems that need to be questioned. REM sleep behavior disorder (RUDB), insomnia, excessive daytime sleepiness, excessive snoring and sleep apnea during sleep, restless leg syndrome should be questioned.

Smelling problems are other accompanying complaints in the neurodegenerative dementias.

Epileptic seizures need to be questioned as they may accompany some diseases.

In order to clarify the risks of cognitive impairment and to distinguish secondary causes, the personal and family history should be questioned in details.

All medications used by the patient should be noted especially in terms of cognitive side effects.

After a comprehensive anamnesis, at least one screening test and a mental state examination con-

sisting of different tests specific to different cognitive functions should be performed in order to understand the neuropsychological profile. The obtained neuropsychological profile provides an indirect information about the anatomical areas underlying the pathological processes.

While the evaluation of functionality is sufficient within the anamnesis, there are also structured tests to be used in clinical research.

The tests used for behavioral evaluation will be mentioned in the next session.

In the light of all this information, with biomarkers or imagings, the differential diagnoses could be performed.

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THE PROFILE OF GERIATRIC PATIENTS WHO UNDERWENT A SURGICAL PROCEDURE UNDER ANESTHESIA IN OUR HOSPITAL

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Aim: Elderly people are defined as people who aged 65 and over. WHO (World Health Organization) predicts the elderly population as 600 million at the year of 2000 and it is expected to reach 1.2 billion in 2025 and 2 billion in 2050 year. Parallel to growing life expectancy, the prevalence of chronic conditions, frailty, the years of life with illness or disability are also increase with aging and, these all situations makes the elderly patients as more sensitive to anesthetic medications. The aim of this study is to determine the profile of geriatric patients who underwent invasive diagnosis and surgical procedures under anesthesia in our hospital and, raise awareness about geriatric anesthesia.

Materials and Methods: A total of 26537 geriatric patients (aged ≥ 65 years, median age: 74.5 years, 47.5% were females) who underwent either diagnostic invasive prosedure (n = 10974) or surgery (n = 15563) under anesthesia were included in this study. Data on patient demographics, American Society of Anesthesiologists (ASA) physical status classification, whose comorbidities, distribution of surgeries according to surgical clinics, mortality rates, type of anesthesia and the average costs of patients were obtained from medical records. The data of patients which in the Hospital Data Management System, were reviewed retrospectively between 2016-2019 years.

Results: A total of 26537 patient's 52.5% were male. The 60.3%, 30.5 % and 9.2% of all patients were between 65 to75, 76 to 85 and over 85 years old respectively. The values of 5%, 41,3%, 47,6%, and 6,1% of ASA physical status classification was noted as ASA I, ASA II, ASA III and ASA IV separately. Cardiovascular diseases, chronic obstructive pulmonary disease (COPD), diabetes mellitus and neurological diseases were the most encountered comorbidities. All of the patients had minimum 1, 51% of 2, 26% of 3 and 5% of them had 4 comorbidities. Invasive cardiovascular procedures (41%), interventions related to the eye diseases (15%), operations of general surgery (14%), urology (9%) and orthopedics (7%) were in the first five general anesthesia required management. The mean mortality rate was 9,9%. The rate of mortality was higher in patients with high ASA score and in emergency surgeries. The types of anesthesia were 75% general anesthesia and 25% central or peripheral nerve block. The average cost of the patients were calculated as $ 750.

Conclusion: The rate of age 65 and over population in Turkey's was 7% in 2009, it increased to 9.1% in 2019. The morbidity and mortality of geriatric patients, can be decreased with preoperative comprehensive geriatric assessment. We believe that anesthesia-related mortality will decrease by increasing the awareness of geriatric anesthesia, educating the staff on this issue and creating a sensitive and patient-specific anesthesia protocol targeting elderly patients.

Keywords: elderly, surgery, anesthesia, co-morbidity, ASA class, mortality

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ANTI-AGING IMPLEMENTATIONS

SS - 002

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LONGEVITY COMPLIANCE SCALE

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Aim: Nine common characteristics of Blue Zone regions (Power 9) are as follows: having a natural movement pattern, having an ikigai (a reason for being), being able to cope with stress, being able to stop eating before being completely full, eating a predominantly plant-based diet, drinking wine regularly, having a sense of belonging, strong family ties and strong social bonds (1). In the present study, we investigated the relationship of Power 9 characteristics with age and gender using the ''Longevity Compliance Scale'' that we have recently developed.

Method: Data were collected by administering the online ''Longevity Compliance Scale'' (Nine questions of 5-point Likert scale type) to 490 participants (Table I). SPSS was used for calculations (Tables II and III).

Results: Cronbach's alpha value was found to be 0.763 (76.3%). Kaiser–Meyer–Olkin coefficient was 83%, and factor analysis test provided high reliability (0.830 > 0.750). The total score was higher in female and elderly participants ($p < 0.05$).

Discussion: We found that longevity compliance developed predominantly in female and elderly participants. These results may vary across regions and cultures; thus, they cannot be generalised. However, it is important to demonstrate the effect of the 9 common dominant points, which have been found after extensive studies conducted for many years and can be associated with longevity, on human life in future studies conducted among various populations because it may provide us with tips to prolong our lives and help us stay healthy (2).

Conclusion: Knowledge and experience accumulated as a result of ageing, especially in women, may, instinctively or consciously, enhance compliance with the codes for longevity (3).

Keywords: aged, longevity, female, humans.

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Table I. Longevity Compliance Scale Questions
1. Does your diet predominantly consist of vegetables?
2. Do you perform things like napping, walking, etc., to cope with stress?
3. Do you have strong family ties?
4. Do you have strong social bonds?
5. Do you feel that you belong to a place or a group?
6. Do you occasionally drink wine?
7. Do you stop eating before you are completely full?
8. Have you found your reason for being (ikigai)?
9. Do you have a natural movement pattern (garden work, daily walking, housework, etc.)

Table II. Gender and total scores (Independent T-test)

Gender	N	Mean	Std. Dev.	Min.	Max	P value
Men	250	27,71	7,27	12,0	41,0	,001
Women	240	29,83	6,71	14,0	45,0	,001
Total	490	28,75	7,07	12,0	45,0	,001

Table III. Gender and total scores (ANOVA)

Age groups	N	Mean	Std. Dev.	Min.	Max	P value
20-29	101	22,90	6,034	14,0	38,0	<0.001
30-39	102	25,7	6,100	12,0	40,0	<0.001
40-49	98	27,7	5,648	16,0	40,0	<0.001
50-59	103	32,9	5,325	17,0	45,0	<0.001
60+	86	35,3	3,480	22,0	41,0	<0.001
Total	490	28,7	7,077	12,0	45,0	.

CARDIOVASCULAR SYSTEM DISORDERS

SS - 003

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THE EFFECT OF SARCOPENIC OBESITY ON CARDIOVASCULAR RISK INDICATORS

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Background: Sarcopenic obesity is a newly defined term. It refers to the situation where sarcopenia and obesity coexist. There is both a decrease in muscle tissue and strength and an increase in fat ratio, which induces disease pathogensities in the body distribution of these individuals, and especially creates a tendency to cardiovascular diseases. There is an increase in their morbidity and mortality.

Aims: The aim of this study is to investigate the relationship between blood pressure, pulse changes ('reverse dipper' status) which are known to be an independent risk indicators for cardiovascular diseases that can be detected in 24-hour ambulatory blood pressure monitoring and sarcopenic obesity. It is also aimed to investigate the effect of sarcopenic obesity on comprehensive geriatric assessment tests.

Methods: A total of 124 patients, who had a bioelectrical impedance analysis (BIA) for examination of sarcopenia and a 24-hour ambulatory blood pressure monitoring (ABPM) device were included in the study. Sarcopenia was defined according to the EWGSOP criteria. Cut-off scores for obesity according to fat mass (FM) are 38% and 27% for women and men, respectively. The patients were divided into two groups as those with and without sarcopenic obesity (SO). In the blood pressure values measured at night, 10% or more decrease compared to daytime values was defined as dipper hypertension, less than 10% decrease was non-dipper hypertension, and higher than 10% was defined as reverse dipper hypertension.

Results: In our study, the prevalence of SO was found to be 38.9%. In the group with SO; It was determined that the rate of female gender was higher, the condition of not being married, the situation of living with children was higher, the number of drugs used was higher, and depression and osteoarthritis were higher. In comprehensive geriatric assessment tests; Lawton-Brody instrumental activities of daily living (LB-IADL) and Mini-Mental state exam (MMSE) scores were found to be lower. In the 24-hour ABPM results; it was found that the average pulse rate was higher and the percentage of being 'reverse dipper' was higher in SO group. The results are summarized in the tables.

Conclusion: Sarcopenic obesity may be more common in the older people than thought. Average pulse rate and reverse dipper status used in relation to increased cardiovascular risk were higher in the SO group. Older people with SO are at cardiovascular risk. Being SO affects the older people's instrumental daily activities and cognitions negatively. Monitoring SO with appropriate treatments can contribute to the reduction of cardiological disease burden and mental and physical functionality of the older people.

Keywords: sarcopenia, sarcopenic obesity, older people, reverse dipper, 24-hour blood pressure

Table 1. Demographic and Clinical Data of The Study Groups

	SO (-)	SO (+)	p value
n (%)	75(59.5)	49(38.9)	
Age	75.45±7.74	80.91±6.34	0.147
Gender Female /Male	45(52.3) /30(78.9)	41(47.7) /8(21.1)	0.005*
marital status Married /Single	39(73.6) /35(50)	14(26.4) / 35(50)	0.008*
The number of drugs used	5(1-12)	7(0-16)	0.002*
BMI	24.22±4.30	26.90±5.61	0.005*
Hypertension	62(65.3)	33(34.7)	0.490
Diabetes Mellitus	39(69.6)	17(30.4)	0.043*
Cerebrovascular Event	15(71.4)	6(28.6)	0.262
Congestive Heart Failure	33(75)	11(25)	0.011*
Depression	15(33.3)	30(66.7)	<0.001*
Osteoarthritis	35(46.7)	40(53.3)	<0.001
Katz ADL	6(0-6)	5(0-6)	0.216
LB-IADL	14(0-17)	7(0-17)	0.002
MMSE	23(8-30)	19(9-29)	0.005
MNA-SF	12(8-14)	12(6-14)	0.578
GDS	5(0-15)	5(0-12)	0.451
4-meter gait speed (m/sn)	0.5(0-1.2)	0.44(0-0.8)	0.014*
Handgrip Strength (kg)	17.9(5.10-41.7)	13.4(5.10-20.80)	<0.001*

Abbreviations: SO: sarcopenic obesity, CGA: Comprehensive Geriatric Assesment; Katz ADL: Katz index of activities of daily living; LB-IADL: Lawton-Brody instrumental activities of daily living scale; MMSE: Mini-Mental state exam; MNA-SF: Mini-nutritional assessment-short-form; GDS: Geriatric Depression Scale.)

Table 2. 24-Hour Blood Pressure, Pulse Rate and Nocturnal BP Fall Data of The Study Groups

	SO (-)	*SO (+)*	*p value*
Mean systolic blood pressure	125.41±14.34	120.57±14.27	0.284
Mean diastolic blood pressure	73(55-77)	71(58-137)	0.552
Mean arterial pressure	97.00±10.98	92.92±10.45	0.146
Mean pulse rate	68 (52-96)	72(57-94)	0.018*
Nocturnal Blood Pressure Fall			0.034*
Non-dipper	24(51.1)	23(48.9)	
Dipper	28(59.6)	19(40.4)	
Reverse dipper	7(24.1)	22(75.9)	

CARDIOVASCULAR SYSTEM DISORDERS

SS - 004

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DOES ULTRASONOGRAPHIC MUSCLE MASS MEASUREMENT PREDICT ALL-CAUSE MORTALITY IN GERIATRIC PATIENTS UNDERGOING TAVI?

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Introduction: Aortic stenosis (AS) is most frequent valve disease which is an important cause of morbidity and mortality in older people. Transcatheter aortic valve implantation (TAVI) is an alternative treatment methods for patients who have inoperable or high surgical risk. Previous studies showed that comprehensive geriatric assessment improved prognosis. The aim of the study was to evaluate the predictors for all-cause mortality, especially with comprehensive geriatric assessment and ultrasonographic muscle mass measurement in patients after TAVI.

Methods: Sixty years and older patients underwent comprehensive geriatric assessment. Katz Activities of Daily Living scale, Lawton Brody Instrumental Activities of Daily Living scale (Lawton-Brody), short form of Mini-Nutritional Assessment (MNA-sf), and Yesevage Geriatric Depression Scale short form, Mini Mental State Examination (MMSE), Edmonton Frail Scale, Clinical Frailty Scale, SARC-F Questionnaire, gait speed, hand grip strength were performed. Sarcopenia was defined according to EWGSOP2 criteria. Muscle mass was measured with bioimpedance analysis (BIA) and ultrasonographic evaluations. Thirty day all-cause mortality, re- hospitalization, and complications were obtained by medical records.

Results: A total of 38 patients were enrolled the study. Median age was 77 (60-91) years and 47.4% were female. Median follow up time was 10.6 (0-15) months, 30-day mortality rate was %86.8 ± 55. Survivors and non-survivor were similar for age, gender and anthropometric measurements. MNA-sf was lower [7.5 (3-14) vs 13 (6-14) p=0.01] and Yesevage Geriatric Depression Scale and SARC-F score were higher in the non-survivors compared to the survivors [4.5 (2-12) vs 2(0-8) p= 0.008 and 6 (2-9) vs 2 (0-8) p=0.037, respectively]. Gait speed was slower in the non-survivors group [19.5 (5-20) vs 8.78 (3.26-20) p=0.021]. Skeletal muscle index and phase angle which were evaluated by BIA were similar in the both group. Gastrocnemius muscle thickness measured by ultrasonography was lower in the non-survivors group [9.3 (7-15.6) vs 11.6 (8.3-20) p=0.021]. In correlation analysis, mortality positively correlated with sarcopenia (r=0.328 p=0.044) and gait speed (r=0.423 p=0.008) and negatively correlated with MNA-sf score (r=-0.562 p<0.001). Frailty scores were not correlated with mortality. Although there was no statistical significance, there was negative correlation between mortality and gastrocnemius and rectus femoris muscle thickness (r=-0.296 p=0.071 and r=-0.3 p=0.068, respectively). In cox regression analysis MNA-sf score was only independent predictor of mortality (HR=0.65, 95 CI% 0.5-0.85, p=0.002).

Conclusion: Malnutrition was independently associated with mortality. Comprehensive geriatric assessment and sarcopenia evaluation with ultrasonographic muscle measurement could be an important factor to predict mortality for geriatric TAVI patients.

Keywords: TAVI, mortality, malnutrition, sarcopenia, muscle, ultrasound

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CARDIOVASCULAR SYSTEM DISORDERS

SS - 005

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FREQUENCY OF PERIPHERAL ARTERIAL DISEASE IN TURKISH OLDER ADULTS WITH AND WITHOUT OSTEOPOROSIS

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Objective: In some studies, it has been shown that osteoporosis and osteoporotic fracture incidence is higher among patients with cardiovascular disease including peripheral arterial disease (PAD). In this study, we aimed to determine the frequency of PAD among Turkish older adults with and without osteoporosis.

Material and Method: Patients aged 65 or older were enrolled. Ankle brachial index (ABI) measurement and osteoporosis screening by dual energy x-ray absorptiometry (DEXA) was performed to all participants.

Results: A total of 504 subjects were included [mean age: 76.0±6.3 (65to99); female: 67.3%]. The number of patients with osteoporosis was 193, and this group had significantly more women compared to those with no osteoporosis. Mean ABI values were similar in the two groups (p=0.525). PAD was detected in 15.7% of total sample. The frequency of PAD among subjects with and without osteoporosis was 15% and 16.1%, respectively (p=0.752). Female participants with osteoporosis had a similar rate of PAD with males (16.2% vs. 11.1%, p=0.460). Among patients with osteoporosis, bone density at spine, femoral total and femoral neck was not different between subjects with and without PAD [760.3±98.5 vs. 750.3±115.7, F(1.188): 0.02, p=0.893; 738.2±102.6 vs. 738.6±111.4, F(1.188):1.35, p=0.247; 599.6±110.8 vs. 605.2±91.1, F(1.189):0.04, p=0.535)] after controlling for age and gender.

Conclusion: Frequency of PAD was similar in older women and men with and without osteoporosis. Among osteoporotic patients, bone density at either of three sites also did not differ in the presence of PAD. These first results from a Turkish population do not support some of the previous studies that found some associations between PAD and osteoporosis in different populations.

Keywords: cardiovascular disease, peripheral arterial disease, osteoporosis

CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 008

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COMPARISON OF THE GLIM CRITERIA, MNA-SF AND NRS-2002 FOR NUTRITIONAL EVALUATION OF PALLIATIVE CARE PATIENTS

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Background and Aims: The Global Leadership Initiative on Malnutrition (GLIM) criteria were launched in September 2018; to be used in adults worldwide for malnutrition diagnosis. (1) It incorporates the most up-to-date criteria, based upon the European Society of Clinical Nutrition and Metabolism (ESPEN) consensus. (2) The aim of this study was to compare GLIM criteria to validated nutritional screening tools (3) Mini Nutritional Assessment short form (MNA-sf) and Nutritional Risk Score 2002 (NRS-2002) in palliative care patients.

Methods: Malnutrition screening tests (GLIM, NRS 2002 and MNA-sf) were performed for patients who were admitted to palliative care. GLIM criteria provided a 2-step approach to the malnutrition diagnosis based on phenotypic and etiologic criteria. The phenotypic criteria to be considered were nonvolitional weight loss >5% within past 6 months; low body mass index (BMI) <20 kg/m2 if <70 years, or <22 kg/m 2 if >70 years old; and reduced muscle mass: hand grip test, Etiologic criteria were reduced food intake or assimilation <50% of energy requirements >1 week, or any reduction for >2 weeks, or any disease burden or inflammatory condition (crp>5) (1). Information regarding food intake provided by patients was corroborated by their caregivers resent during the hospitalization process. Daily food consumption records were followed from the food consumption cards filled by the patients and their caregivers.

Results: Data for this retrospective study were obtained from the case report forms which dietician was prepared. In our study 148 patients, 73 (49.32%) female and 75 (50.67%) male were included. The mean age was 72.99±1.17, male mean age 70.4 and female mean age 75.5. Palliative care avarege hospitalisation time was 46.49 days. Malnutrition for GLIM criteria 141/148 (95.2%), according to MNA-sf 131/148 (88.5%) patients, according to NRS-2002 test 139/148 (93.9%) patients. The average daily calorie intake of the patients was 1093.57 kcal, the average carbohydrate consumption was 129.27 gr/day, the average fat consumption was 50.33 gr/day, and the average protein consumption was 30.88 gr/day. The mean CRP was 59.89, the procalcitonin was 2.43 and the prealbumin was 0.14. When the tests were compared in patients diagnosed with malnutrition, there was no statistical difference between GLIM criteria and NRS-2002 ($p=0.75$), but MNA-sf showed difference ($p<0.05$).

Conclusions: In palliative care patients, no significant difference was found between the GLIM criteria and the NRS-2002 test, while a significant difference was found between the MNA. GLIM criteria was more practical and easier to diagnose malnutrition. CRP was more sensitive than other inflammatory parameters in showing inflammation. We think that GLIM criteria is an easy-to-use and sensitive diagnostic test for patients in palliative care.

Keywords: palliative care, malnutrition, aged

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CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 009

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A COMPARISON OF PALLIATIVE CARE CONSULTATIONS REFERRED FROM DIFFERENT INPATIENT SERVICES

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Objective: Palliative Care Services (PCS) has been established in a few medical centers, and palliative care is as yet an undefined field of medicine in Turkey. Research in the palliative care field is relevant to optimize the best care available to patients with a limited prognosis. The purpose of this study is to evaluate the differences in palliative care inpatient consultations from emergency services, intensive care units, and oncology inpatient services, to address the perceptions and utilisations of palliative care by different inpatient units.

Patients and Methods: We conducted a descriptive study, based on medical electronic records of inpatients receiving palliative care. Palliative care consultation data between November 2019 and February 2020 were retrospectively collected. A total of 50 patients were included in this study, 30 (60%) were males and 20 (40%) were females. The median age was 75.5 (57–94).

Results: Out of 50 patients, 50% had a cancer diagnosis, 32% had previous stroke, 16% had dementia. The majority of consultations were originated from intensive care units (% 48), 30% we rereferred from oncology inpatient services, 22% were referred from the emergency unit. The most frequent reasons for consultation were terminal illness (74%), followed by 14% for pain palliation, and 6% for post-operative follow-up. Overall 88% of these consultations were eligible and accepted into palliative care inpatient services. Table 1 illustrates the differences among characteristics of patients referred to palliative care services.

Conclusion: The intensive care services were the leading source of consultations and the eligibility of these patients was high. There was a significant difference between emergency unit consultations

and other units in terms of eligibility, suggests that palliative care perspective needs to be improved.

Keywords: palliative care

Table 1. Characteristics of Patients Referred to Palliative Care

	Emergency Unit	*Intensive Care Unit*	*Oncology Inpatient Services*	*p*
Gender (Male, n%)	7 (% 63)	12 (% 50)	11 (% 73)	0.3
Age (Median, Min-Max)	77 (57–89)	75 (67–94)	75 (57–87)	0.4
Dementia (n%)	3 (% 27.3)	5 (% 20.8)	0 (% 0)	0.3
Malignancy (n%)	7 (% 63.6)	5 (% 20.8)	15 (% 100)	<0.001
Stroke (n%)	1 (% 9.1)	13 (% 54.2)	2 (% 13.3)	0.005
Anticoagulant use (n%)	6 (% 54)	22 (% 91.7)	10 (% 66.7)	0.029
Antipsychotic use (n%)	4 (% 36.4)	17 (% 70.8)	3 (% 20)	0.006
Eligibility n (%)	7 (% 63.6)	23 (% 95.8)	14 (% 93.3)	0.018

CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 010

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TRAUMATIC STRESS LEVEL OF ELDERLY PEOPLE LIVING IN A NURSING HOME OF AFTER THE EARTHQUAKE

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Objective: Natural disasters affect many people at once and have direct effects on mental health (1). Natural events such as earthquakes cause sleep disorders and may lead to the emergence of diseases or the development of the course of the diseases negatively (2). In this study, it was aimed to investigate the level of traumatic stress and sleep quality in the elderly living in a nursing home in Manisa after the earthquakes in January 2020.

Method: After the earthquakes occurred in January 2020, the elderly living in a nursing home in Manisa were included in the study on a voluntary basis. Sociodemographic data collection form, Traumatic Stress Symptom Checklist and Sleep Hygiene index were applied to the participants (3).

Results: A total of 41 participants, 31 males and 10 females aged 60 and over, were included in the study. After the earthquake 7.3% of the elderly staying in the nursing home experience trauma. There is a positive relationship between body weight and post-earthquake trauma (p=0.009). After the earthquake, 15% increase in the health perception of the elderly was detected. There was no statistical significance between trauma and sleep quality after the earthquake. 36% of the elderly have BMI over 25, and 4 percent have a BMI below 18.

Discussion: The sleep quality deteriorated after traumatic events can affect the course of the diseases negatively and disrupt the quality of life. Already, increased vulnerability with aging, geriatric syndromes such as malnutrition can cause elderly to be more affected by sleep disorders. The frequency and severity of geriatric diseases increase with the presence of insufficient physiological reserves and decreased organ functions, as well as the limitation of daily life activities and quality of life deterioration (4). It would be rational to monitor and monitor elderly people for at least a while after traumatic events. In our study with elderly people in nursing home, the effect of stress disorder after earthquake on sleep quality was not found statistically significant. It may be explained as a reason for doing this in an environment where elderly people feel strong and safe in nursing homes (5). It would be rational to determine the sleep quality of the elderly with the screenings made beforehand and make suggestions in negative situations.

Conclusion: Living in an environment where elderly people like nursing homes are not alone and feel safe can help minimal post-traumatic stress levels. Therefore, it can be said that having social support is somewhat beneficial in the development of traumatic stress-related pathologies.

Keywords: earthquakes, aged, post-traumatic

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Table 1. Gender distribution

Men	*Frequency*	*Percent*
Men	31	75.6%
Women	10	24.4%
Total	41	100%

Table 2. Age Groups Distribution

Age Groups	*Frequency*	*Percent*
60–69	7	17.1
70–79	17	41.5
80+	17	41.5
Total	41	100

CARE SERVICE IMPLEMENTATIONS
(REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 012

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Publication Start Date: *2020–10–17 09:12:00*
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GERIATRIC PATIENTS IN 1-YEAR INTENSIVE CARE FOLLOW-UP

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Purpose: Increasing population of elderly people, increasing high-dependency rate with age, and acute exacerbations of underlying chronic health issues have led to the increase in intensive care admissions of patients above the age of 65. According to the latest data released by TÜIK (Turkish Statistical Institute), elderly population in Turkey, with 21.9% increase in the last five years, has reached 7 million 550 thousand and 727 people in 2019. There are studies showing that 42–52% of intensive care hospitalizations in the USA are patients over 65 years old[1] (TÜIK Statistics for Elderly People, 2019). Similarly, in a study conducted in our country, it was reported that elderly people comprise 53.6% of the patients hospitalized in ICU[2]. In our study, we attempted to examine the distribution of geriatric group patients over 65 years of age hospitalized in our hospital in one year.

Materials and Methods: Hospitalization files, daily observations and computer records of the patients hospitalized in the intensive care units of our hospital between 01.01.2019 and 01.01.2020 were individually examined.

Findings: A total number of 1343 level-3 patients were monitored in the intensive care units of our hospital between 01.01.2019 and 01.01.2020; 839 of these patients (62.4%) were over 65 years old; 391 (46.6%) of the patients over the age of 65 were male and 448 (53.4%) were female. The average APACHE-2 (Acute Physiology and Chronic Health Evaluation) scores of these patients recorded 24 hours after hospitalization was found to be 19.7±4; the mean hospitalization day was 8±3; 246 (29.3%) of the patients died after follow-up and treatment; 593 (70.7%) of them were transferred to the relevant services after treatment. The observation of post-treatment service distribution yielded the following findings: Chest Diseases Service: 151 (18%), Palliative Care Service: 130 (15.8%), Orthopedics Service: 84 (10%), Internal Medicine Service: 78 (9.2%), General Surgery Service: 56 (6.6%)), Cardiology Service: 39 (4.6%), Neurology Service: 39 (4.6%), and Brain Surgery Service: 11 (1.3%).

Result: There is an increasing need for intensive care for elderly population in our country as in the whole world. Due to the exacerbation of chronic diseases of elderly people, issues related to internal branches require intensive care hospitalizations. Frequent follow-up and treatment of individuals with chronic diseases over the age of 65 will reduce the need for intensive care. Collaboration of geriatrics specialists and general practitioners will break this vicious cycle and provide vacancy in intensive care units for actual end-stage patients.

Keywords: geriatric patients, intensive care

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CARE SERVICE IMPLEMENTATIONS
(REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

SS – 013

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TURKISH VALIDATION AND RELIABILITY OF PALLIATIVE PERFORMANCE SCALE VERSION 2 (TURKISH-PPSV2)

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Introduction: Palliative care is a multidisciplinary model that focusing on relieving symptoms and other problems and improving quality of life of both patients and relatives. Therefore, information about performance status of the patients staying in a palliative care center is so valuable in predicting patient prognosis and planning further investigations or interventions. PPSv2 is a reliable and easy applicable scale that evaluating patients prognosis. Since Turkish version of this scale is not available yet, we aimed to investigate Turkish validation and reliability of PPSv2 in this study.

Methods: Before starting this validation study, permission was taken from Victoria Hospice Society that holding copyright of the PPSv2. Firstly, forward translation from English to Turkish was done by three different experts. The last version of the forward-translated form was approved by these three experts. After that, backward translation from Turkish to English was done by an English teacher who did not see the original PPSv2 form. Forward and backward translated forms were sent to the Victoria Hospice Society where these two translated forms were investigated and approved. After language translation, validity and inter– and intra-observer reliabilities of the PPSv2 were investigated. Validity of the PPSv2 was tested by the two common used scales; Katz activities of daily living (ADL) and Karnofsky Performance Scale (KPS).

Results: Seventy patients staying in a palliative care center were included in the study (58.6% were male, median age was 78 (IQR: 19) years). Median Turkish-PPSv2 score of the patients was 30 (IQR: 20). The analyses of inter– and intra-observer reliabilities showed intra-class correlation coefficients (ICC) as 0.982 and 0.987, respectively. Reliability assessed by Cronbach alpha coefficient was 0.992 with high internal consistency results. Validity analyses showed strong agreement with other functional assessment methods ADL and KPS with rho coefficient as 0.762 and 0.782, respectively ($p<0.001$ for both).

Conclusion: Validity and reliability of Turkish-PPSv2 has been shown in the recent study. It has been also shown that this scale is suitable for evaluating performance status of the patients staying palliative care center in our country.

Keywords: palliative care, performance, Katz, Karnofsky, validity

DEMENTIA, DEPRESSION, DELIRYUM

SS – 014

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ASSOCIATION OF NUTRITIONAL STATUS WITH ANXIETY AND DEPRESSION IN ELDERLY INPATIENTS

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Introduction: Elderly people face multiple health problems, including depression, anxiety and malnutrition (1). These three conditions might have negative consequences on one's health and daily living; a focus on mental health disorders in older adults is essential due to their impact on morbidity, mortality, quality of life and disability (2). We aimed to assess correlates of mental and nutritional health among elderly inpatients at the university hospital.

Methods: This cross-sectional study was conducted between December 2019 and January 2020 on 44 elderly. A questionaire was applied to elderly inpatients. This questionnaire assessed the socio-demographic characteristics, including age, gender, living place (rural/urban), living position (alone/with family/with caregiver), the level of education (illiterate, literate, primary, secondary, high school and university), the marital status (single, married, widowed), smoking and alcohol consumption. Since the relationship between anxiety and depression in older adults is very solid and since they co-occur frequently in older adults, we decided to measure the level of anxiety and depression in these patient, using the hospital anxiety and depression (HAD) scale. For the depression and anxiety subscales they were found that a score of 7 or less for non-cases, scores of 8–10 for doubtful cases and scores of 11 or more for definite cases. We used the Mini Nutritional Assessment-Short Form (MNA-SF), an ideal nutritional tool to use in the geriatric population. A score of 0–7 indicates a malnutrition status, 8–11 a risk of malnutrition, whereas a score of 12–14 indicates a normal nutritional status. Anthropometric measurements included weight, height, and body mass index (BMI). Barthel index was used to assess basic activities of daily living. Lawton–Brody index was used for instrumental activities of daily living.

Statistical Analysis: Data analysis was performed on SPSS software, version 22. Two sided statistical tests were used; Chi-2 test and Fisher's exact test for qualitative variables, and Mann whitney u test for quantitative variables.

Results: The mean age of the study population was 71.50±7.14 (60–89) years, and 54.5% (n=24) of the study population were males. The sociodemographic and clinical characteristics of the population according to the presence of anxiety and depression are shown in Table 1. No difference was found between living position, living place, marital status, smoking and alcohol consumption, functional disability according to IADL index and ADL index, and presence of anxiety. We found significant relationship between presence of anxiety and depression (p=0.015). There was a significant relationship between educational level, functional disability according to ADL index and IADL index, and presence of depression (p=0.024, p=0.004, respectively). No difference was found between living position, living place, smoking and alcohol consumption, and presence of depression.

Conclusion: Many studies have found a significant relationship between depression and malnutrition (2–4). Depression and anxiety in turn impact on interest in and ability to eat and may further distort intake (5). But, in our study, in elderly inpatients were no statistically significant relationship of nutritional status with anxiety and depression. In our study, only a significant relationship was found between education level and functional disability, and depression. Also, we found significant relationship between presence of anxiety and depression. We plan to increase the number of patients.

Keywords: elderly, nutrition, anxiety, depression

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Table 1. Sociodemographic and clinic characteristics of the hospitalized elderly patients

Variables	*Total, n=44, n (%), or mean SD or median (min-max)*	*Anxiety n (%) or mean SD or Median (min-max)*	*p value*	*Depression n (%) or mean SD or median (min-max)*	*p value*
Gender			0.137		0.651
Male	24 (54.5)	9 (37.5)		14 (58.3)	
Female	20 (45.5)	12 (60)		13 (65)	
Age, years	71.50±7.14	72.52±7.65	0.422	72.26±7.49	0.497
Marital status			0.384		0.661
Single	2 (4.5)	0		1 (50)	
Married	34 (77.3)	17 (50)		20 (58.8)	
Widowed	8 (18.2)	4 (50)		6 (75)	
Educational level			0.570		0.018
Illiterate	(9.1)	2 (50)		4 (100)	
Literate	(4.5)	2 (100)		2 (100)	
Primary school	18 (40.9)	9 (50)		13 (72.2)	
Secondary school	7 (15.9)	3 (42.9)		3 (42.9)	
High school	8 (18.2)	4 (50)		5 (62.5)	
University	5 (11.4)	1 (20)		0	
Body mass index (kg/m^2)	26.05±6.08	25.45±6.68	0.269	25.18±6.94	0.083
Nutrition status			0.136		0.126
Malnourished	18 (40.9)	10 (55.6)		14 (77.8)	
Risk of malnutrition	16 (36.4)	9 (56.3)		9 (56.3)	
Well nourished	0 (22.7)	2 (20)		4 (40)	
Number of drugs	6 (2–12)	6 (2–11)	0.662	6 (2–11)	0.544
Number of chronic diseases	2 (1–4)	3 (1–4)	0.282	3 (1–4)	0.401
Days hospitalized	5 (2–44)	4 (2–26)	0.274	5 (2–26)	0.442

DEMENTIA, DEPRESSION, DELIRYUM

SS – 015

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THE RELATIONSHIP BETWEEN MRI VOLUMETRIC MEASUREMENTS, CSF BIOMARKERS AND NEUROPSYCHOLOGICAL TESTS IN ALZHEIMER'S DISEASE

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Background: Alzheimer's disease (AD) became a worldwide healthcare problem because of the aging population. Current clinical follow up tools include cognitive tests and functionality scales that are subjective. New biomarkers for diagnostic or prognostic purposes must be measurable and objective, and should contribute to clinician's treatment approach. Biomarker candidates for AD include CSF peptides, genes, radiological and nuclear imaging technics. In this study we aim to explore the association between CSF biomarkers, neuropsychological assessment (NPA) and MRI volumetric measurements for using these as biomarkers.

Method: 29 AD patients followed in dementia clinic between 2012 and 2013 were included to the study. The clinical diagnosis was based on the NIA-AA Criteria. Neuropsychological assessment included MMSE, Öktem's Verbal Memory, WMS-R visual reproduction, Stroop, verbal categorical fluency, Watson's clock drawing, and digit span, and Boston naming for language skills. Clinical severity of dementia was rated by CDR, behavioral scale was chosen as NPI and functionality was assessed by IADL. 24 subjects underwent MRI with ADNI protocol for neuroimaging and CSF sample was collected from 27 subjects. Images were analyzed according to mimLAVA program for measuring total brain volume in Neuroscience Department. CSF samples are analyzed for Aβ and phospho tau (p-tau) levels.

Results: MMSE, all verbal and visual memory tests, all frontal lobe function tests and Boston naming test scores were worse than the normative data. MRI total brain volume and volume ratios showed decreased volume in comparison to normative values. CSF Aβ levels were lower, and p-tau levels were higher than normative data. Correlation between MRI volumetry measurements and NPI tests were highly remarkable for digit span tests, verbal fluency tests, Boston naming test, visual recall test and verbal recognition test. There is no association between CSF biomarkers and MRI volumetry or NPI tests.

Conclusion: Brain volumetry is decreased which implicates amiloidosis, neurodegeneration and cognitive decline. 21 subjects were diagnosed as early onset AD (EOAD). EOAD is a rare subgroup, in this regard the literature related to this subgroup is scarce. We found a high level of association between MRI volumetry and NPI tests. Our results implied that each can be used for predicting the other. It seems reasonable to use MRI volumetry for clinical follow up. CSF biomarker results suggests that they can be useful for diagnosis, but not for prognosis or clinical follow up. P-tau results contribute to the literature that p-tau is stable across dementia stage. MRI volumetry is associated to clinical parameters and can be used as a follow-up biomarker, whereas CSF peptids are useful for diagnosis in AD.

Keywords: Alzheimer, neuropsychiatric test, biomarker, magnetic resonance imaging

DEMENTIA, DEPRESSION, DELIRYUM

SS – 017

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DEPRESSION AND INDEPENDENCE IN DAILY LIFE ACTIVITIES AMONG 65 AGE AND OVER INDIVIDUALS LIVING IN BITLIS PROVINCE CENTER

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Objective: In both Turkey and around the world, there is a demographic transformation in which the percentage of the elderly population is increasing. The World Health Organization (WHO) has reported that between the years of 2015–2050, the population above age 60 will nearly double in ratio, increasing from 12% to 22% compared to the total population. The elderly population ratio in Turkey was 8.8% in 2018, and is expected to reach 10.2% in 2023, 12.9% in 2030, 16.3% in 2040, 22.6% in 2060, and 25.6% in 2080. Elderly health is a contemporary topic, and the healthy and quality life of the elderly has especially become important. The aim of this study is to examine the independence in daily activities and rates of depression in elderly individuals.

Materials and Methods: This is a cross-sectional study in which the universe is represented by the elderly people living in central Bitlis province. The universe and sample are known, and a sample size determination formula was used to establish a total of 354 elderly participants. In addition to the socio-demographic data gathered in this study, instruments such as the Katz Index of Independence in Activities of Daily Living and Yesavage Geriatric Depression Scale were also used. Statistical analysis of data was conducted with Chi-Square test. $P<0.05$ was considered significant for all evaluations.

Results: While 27.7% of the elderly are dependent in daily life activities, 72.3% are independent. Compared to other groups, dependence in daily life activities was significantly higher in the elderly who were of advanced age, single or widowed, have low income status, living with their children or relatives, have unhealthy eating habits, considered their health to be poor, experienced pain, poor sleeping habits, and those with depression ($p<0.05$). 55.1% of elderly participants in our study were found to be at certain depression level. Compared to other groups, rates of depression were significantly higher in the elderly who were of advanced age, female, have low income status, used assistance tools, have unhealthy eating habits, considered their health to be poor, experienced pain and those with poor sleeping habits ($p<0.05$).

Conclusion: Dependence in daily life activities and depression are notable problems in the elderly. These problems can be prevented with major public health policies and practices. In this regard, the elderly must have increased access to health and social benefits, voluntary or public support care, as well as social activities and activity services. Geriatric polyclinics and hospital rooms as well as private and public nursing homes must be open to service across the country in order to meet the demands.

Keywords: independence in daily life activities, depression, elderly.

DEMENTIA, DEPRESSION, DELIRYUM

SS – 018

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MUSCLE STRENGTH AS AN INDEPENDENTLY ASSOCIATED FACTOR WITH DEPRESSION

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Objective: Both sarcopenia and depression are common problems in older adults. Recent studies documented probable relationship between those. We aimed to determine the association of muscle strength and physical performance with depression.

Method: The subjects ≥60 years old were prospectively recruited from neurology and psychiatry outpatient clinics of a research and training hospital between February 2019 and December 2019. Exclusion criteria were dementia, Parkinson disease, additional psychiatric diagnosis, hearing and vision defects at a level that may disturb the interview. Diagnosis of depression was evaluated according to the DSM-5 criteria by interviewing the psychiatrist. Muscle strength was assessed by measurement of hand grip strength (HGS) with hydraulic hand dynamometer. EWGSOP2 (HGS-EWGSOP2) (<16 kg and <27 kg for female and male, respectively) and Turkish national cut-off points (HGS-TR) (<22 kg and <32 kg for female and male, respectively) was used to define lower HGS. Chair stand test (CSST) was evaluated. Physical performance was assessed by 4 meter usual gait speed (UGS). Malnutrition (MN) and risk of MN (MNR) were assessed by Mini-Nutritional Assessment short form (MNA-SF). Frailty was screened by FRAIL scale. Univariate analysis and logistic regression analysis were performed.

Results: A total of 123 community dwelling outpatients with mean age of 68.2 ± 4 years were enrolled. 64.2% were female. Prevalence of depression was 33.3%. Prevalence of frail subjects was 16%. Median number of medications was 2 (0–5). Prevalences of lower HGS-EWGSOP2 and HGS-TR were 9.6% and 43%, respectively. Prevalence of impaired CSST was 6.1%. One third of the participants had MN or MNR. Univariate analysis showed that depressed group had increased ratio of lower HGS-TR (56.8% vs 36.4%, p=0.039), impaired CSST (13.5% vs 2.6%, p=0.036), and poor nutrition (43.9% vs 19.8%, p=0.005) compared to non-depressed group. Age, gender, prevalences of lower HGS-EWGSOP2, frailty, impaired CSST were not different between depressed and non-depressed groups. Regression analysis revealed that poor nutritional status (p=0.013, OR=3.21, 95% CI [1.28–8.05]) and lower handgrip strength (p=0.043, OR=2.43, 95% CI [1.03–5.70]) were independently associated with depression after adjustment for age and gender.

Conclusion: We observed that there is an association between decreased muscle strength (both hand grip and lower limb) and depression. The relationship between hand grip strength and depression was significant with Turkish cut off points but not with the universally suggested cut off points. Lower hand grip strength and poor nutritional status were independently associated with depression.

Keywords: sarcopenia, depression, malnutrition

DEMENTIA, DEPRESSION, DELIRYUM

SS – 019

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IS PULMONARY HYPERTENSION ASSOCIATED WITH COGNITIVE FUNCTION?

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Introduction: Dementia is one of the main health problems worldwide. Identifying early determinants of this process may lead to the initiation of specific treatments to slow the progression of the disease. Clinical strokes and cardiovascular diseases contribute to the risk of developing dementia. This study aims to determine the association between cognitive function and parameters of echocardiography in community-dwelling older adults.

Methods: Patients who were admitted to the division of geriatrics of Hacettepe University hospital between January 2019 and January 2020 and screened for cognitive impairment with Montreal Cognitive Assessment (MoCA) were retrospectively analyzed. One hundred two patients who had undergone echocardiography for any reason were included in the study. Demographic properties, comorbidities and medication history of participants were recorded. MoCA scores lower than 17 were accepted as cognitive impairment and 18 and higher were accepted as normal. Left ventricular ejection fraction (LVEF), left ventricular end-diastolic diameter (LVEDD), right ventricular end-diastolic diameter (RVEDD) and pulmonary artery pressure (PAP) values were noted and their relationships with MoCA scores were analysed.

Results: Median age of the group was 77 years old and 65% were women. Participants who had cognitive impairment had lower LVEF and higher PAP than cognitively normal participants (p: 0.002 vs. 0.038, respectively). There were no association between cognitive function and diastolic diameters. There was a low correlation between lower LVEF and delayed recall (r: 0.223 and p: 0.03), repeat (r: 0.219 and p: 0.028), serial subtraction (r: 0.265 and p: 0.008), clock drawing (r: 0.288 and p: 0.004), and visuospatial assessments (r: 0.330 and p: 0.001). Higher PAP showed a mild but significant correlation with orientation score (r: 0.300 and p: 0.044) and clock drawing score (r: 0.228 and p: 0.032).

Conclusion: Cardiovascular factors play an important role in cognitive function. Previous studies also showed that low cardiac capacity is the risk factor for dementia, however it is new that pulmonary hypertension has effect on cognitive impairment, and it is thought that it may be related to hypoxia. We need further studies to investigate the pulmonary hypertension and cognitive impairment association.

Keywords: pulmonary hypertension, cognitive impairment, cognition, ejection fraction

DEMENTIA, DEPRESSION, DELIRYUM

SS – 020

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TURKISH ADAPTATION AND VALIDATION OF RAPID COGNITIVE SCREEN (RCS) TEST

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Objectives: To cross culturally adaptate and validate the rapid cognitive screen test which is a useful, very brief, easy to administer and score screening tool for cognitive dysfunction in a busy clinical setting.

Method: The translation and cultural adaptation process was carried out in 5 stages; (i) two initial translations from English to Turkish, (ii) combining of these 2 translations, (iii) backwards translations, (iv) expert committee which consists of 3 geriatricians and two neurologist review to compare backward translations with the English test and (v) pretest. Turkish RCS, Mini-mental state examination (MMSE) and the Clinical Dementia Rating (CDR) instrument was performed in all patients. We assessed Turkish RCS validity with discriminative power and construct validity analyses. Receiver operator characteristic (ROC) curves were computed to determine sensitivity and specificity of RCS for MCI and dementia.

Results: The Turkish RCS test was translated with minor difficulties. A total of 75 community-dwelling subjects from geriatric and neurology clinics, aged 73.7±7.4 (66.7% females) were included. Twenty-eight were considered as cognitively normal, 17 as mild cognitive impairment and 30 as dementia according to DSM-V. The total RCS scores were positively correlated with MMSE scores ($r=0.799$, $p<0.001$) and negatively correlated with the CDR scores ($r=-0.730$, $p<0.001$). Results showed a high internal consistency (Cronbach's alpha=0.833) and consistent construct validity. The sensitivity, specificity, positive predictive values and negative predictive values of RCS for cut-off point of 6 were 80%, 82.2%, 75% and 86% for dementia, respectively. The sensitivity and specificity and positive predictive values and negative predictive values of RCS for cut-off point of 6–7 were 18%, 79.3%, 20% and 76.7% for MCI, respectively.

Conclusion: The Turkish RCS test was found to be a reliable and valid for screening of dementia.

Keywords: dementia, cognitive decline, mild cognitive impairment

DEMENTIA, DEPRESSION, DELIRYUM

SS – 021

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CLINICAL CHARACTERISTICS OF ELDERLY PATIENTS WHICH WERE ASSESSED PSYCHIATRICALLY IN A UNIVERSITY HOSPITAL

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Objective: One of the problems of elderly patients is psychiatric diseases. As the elderly population increases, related psychiatric diseases are also increasing. The aim of our study is to investigate the clinical characteristics of patients aged 65 and over who were evaluated psychiatrically in our hospital.

Materials and methods: Between June 2016 and January 2020, patients aged 65 and over who were evaluated by a psychiatrist at our hospital with a psychiatry outpatient clinic or psychiatric consultation were included in our study, and the files of the patients were retrospectively analyzed. Patients are grouped according to their application, diagnosis, treatment and comorbidities.

Results: 1168 patients 65 years and older were included the study. 71.6% (n=832) of the patients were female and 28.4% (n=330) were male. It was the first psychiatric evaluation of 63.3% of the patients (n=736). 36.7% of the patients (n=426) had a history of psychiatric treatment and the mean duration of treatment was 2.32±5.51 years. 17.9% of the patients were inpatients treated by other clinics and were evaluated with psychiatric consultation. According to ICD-10 codes, the most common diagnosis was generalized anxiety disorder (GAD) (16.9%, n=98) Other diagnostic distributions included Moderate Depressive episode (15.7%), Nonorganic insomnia (9.8%), Mixed anxiety and depressive disorder (9.5%), severe depressive episode (8.6%), panic disorder (8.5%). The most commonly prescribed antidepressants are escitalopram (32.9%) and mirtazapine (19.1%), while the most commonly prescribed antipsychotics are quetiapine (8.6%) and olanzapine (8%). The most common concomitant physical diseases are hypertension (40%)., 4), diabetes mellitus (21.3%) and coronary artery diseases (11.8%).

Conclusion: It is important to be awareot the the psychiatric diseases and diagnosis distributions, frequently used psychiatric drugs and the characteristics of psychiatric evaluation of the elderly patients in order to manage the patients' current clinics correctly. We believe that the results of our study can also contribute to public health studies as data.

Keywords: Elderly, clinical features, depression, anxiety

DEMENTIA, DEPRESSION, DELIRYUM

SS – 022

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IMPROVEMENT OF COGNITIVE DEFICIT BY CURCUMIN IN SCOPOLAMINE-INDUCED ALZHEIMER'S DISEASE MODELS

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Introduction: Curcumin is suggested for the treatment of Alzheimer's Disease (AD) because of its' protein modifying and antioxidative features (1). In this study, anti-dementia effects of curcumin on scopolamine-induced AD rat models were evaluated.

Methods: Twenty-one male Wistar Albino rats of 200±25 grams, 1-year-old were introduced to study. They were divided into three groups (n: 7 in each group); untreated control, exposed to scopolamine and treated by curcumin, and then exposed to scopolamine. Animals were evaluated for behavioral tasks with the Morris Water Maze test (2). After behavioral tests, interleukin-6 (IL-6), tumor necrosis factor-alpha (TNF-alpha), total oxidative status (TOS), and total antioxidative status (TAS) were measured in hippocampal tissues. C-reactive protein (CRP) levels were measured in serum specimens.

Results: In this study, we found that length to reach the escape platform was highest in the scopolamine group, lowest in the curcumin group (p=0.004). Time to reach the platform was longest in the scopolamine group, shortest in the curcumin group (p=0.025). The length to reach the platform was highest in the scopolamine group, lowest in the control group in the probe test (p=0.035). When we evaluated the change of behavior test parameters with time, we noticed path length to platform and S3 zone started to diminish on day 3 or 4 in the rats. There was a significant decrement in path length to reach the platform in the curcumin group on day 3 (p=0.016) and the control group on day 4 (p=0.007). There was no significant decrement in the scopolamine group. IL-6 levels were higher in the scopolamine group than the curcumin group (p=0.017) and the control group (p=0.005). Oxidative stress index (OSI) and TNF-α were highest in the scopolamine group, but there was no statistical significance. CRP levels of rats were extremely low, and there was no significant difference between groups (p=0.258).

Discussion: In this study, we aimed to evaluate the protective effect of curcumin treatment in spatial memory, consolidation memory, inflammation, and oxidative stress in the AD models generated with intraperitoneal scopolamine injection. According to the results of the current study, i. p. scopolamine seemed to induce significant spatial memory deterioration, as evidenced by increased distances to move to reach the platform and S3 zone in Morris water maze and increased latency to reach the platform. A decrement in consolidation memory was also seen in the probe test. It has also been elicited in the present study that intraperitoneal administration of scopolamine causes an increase in inflammation, which might be responsible for cognitive impairment. Treatment of AD is open to innovations due to a lack of definitive treatment. Studies on this topic suggest that the role of supplements may be important in both prevention and treatment. More investigation is necessary on this subject.

Keywords: Alzheimer's disease, curcumin, dementia, Morris water maze, scopolamine

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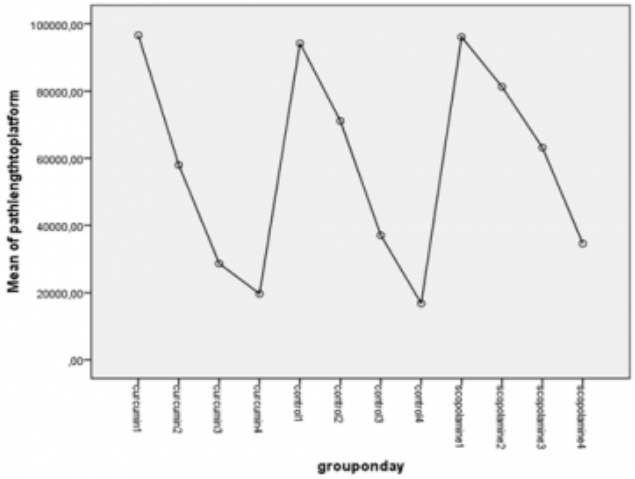

Figure 1. Path length to the platform according to days

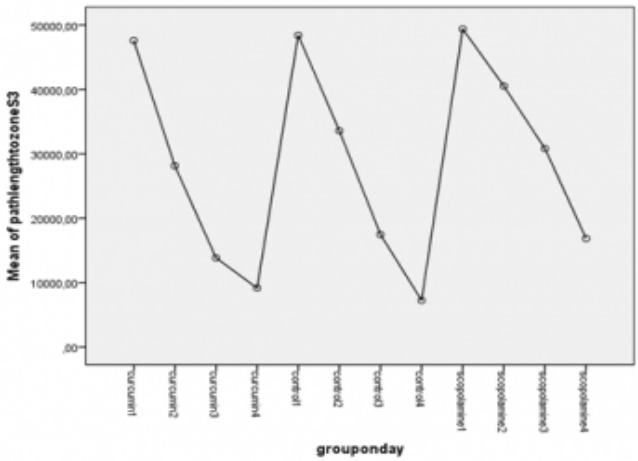

Figure 2. Path length to S3 zone according to days

Table 1. Comparison of behavior test parameters according to groups

Parameter	*Group*	*Mean ± SD*	*p=0.004*
Path length to the platform (cm)	Curcumin (n=7)	30.06±18.5	
	Control (n=7)	34.53±17.21	
	Scopolamine (n=7)	37.9±16.95	0.01
Path length to S3 zone (cm)	Curcumin (n=7)	14.4±9.87	
	Control (n=7)	16.5±10.11	
	Scopolamine (n=7)	18.5±9.92	0.025
Latency to the first platform (s)	Curcumin (n=7)	19.5±24.95	
	Control (n=7)	27.4±27.53	
	Scopolamine (n=7)	29.7±29.94	
Latency to S3 zone (s)	Curcumin (n=7)	3.1±5.74	0.152
	Control (n=7)	4.1±5.82	
	Scopolamine (n=7)	2.7±5.28	

Table 2. Comparison of probe test parameters according to groups

Parameter	*Group*	*Mean ± SD*	*p=*
Path length to the platform (cm)	Curcumin (n=7)	48.63±9.6	0.035
	Control (n=7)	44.15±8.51	
	Scopolamine (n=7)	55.70±3.13	
Path length to S3 zone (cm)	Curcumin (n=7)	23.25±7.1	0.062
	Control (n=7)	19.9±6.63	
	Scopolamine (n=7)	27.9±2.97	
Latency to the first platform (s)	Curcumin (n=7)	11.82±11.37	0.071
	Control (n=7)	18.31±9.53	
	Scopolamine (n=7)	30.40±14.3	
Latency to S3 zone (s)	Curcumin (n=7)	5.14±4.8	0.278
	Control (n=7)	9.15±5.43	
	Scopolamine (n=7)	7.07±3.05	

Table 3. Parameters according to days

Parameter	*Group*	*Day*	*Mean ± SD*
Path length to the platform (cm)	Curcumin (n=7)	1	96.6±69.22
		2	57.9±67.05
		3	28.7±44.88
		4	19.7±32.22
	Control (n=7)	1	94.22±68.64
		2	71.12±57.66
		3	37.07±37.35
		4	16.8±16.31
	Scopolamine (n=7)	1	96.1±64.01
		2	81.3±61.49
		3	63.2±64.69
		4	34.6±54.34
Path length to S3 zone (cm)	Curcumin (n=7)	1	47.6±36.08
		2	28.14±35.02
		3	13.84±22.44
		4	9.16±16.11
	Control (n=7)	1	48.4±38.87
		2	33.58±28.75
		3	17.46±17.40
		4	7.23±7.74
	Scopolamine (n=7)	1	49.37±34.98
		2	40.53±33.16
		3	30.81±31.99
		4	16.87±29.52

Table 4. Relationship between groups and inflammatory/oxidative stress parameters

Parameters	*Groups*	*Mean ± SD*	*p=*
IL6 (mg/dl)	Curcumin (n=7)	11.29±1.52	0.007
	Control (n=7)	10.17±2.10	
	Scopolamine (n=7)	13.41±1.34	
TNF-α (mg/dl)	Curcumin (n=7)	22.57±5.33	0.869
	Control (n=7)	22.2±2.81	
	Scopolamine (n=7)	23.3±2.9	
OSI	Curcumin (n=7)	18.9±5.52	0.436
	Control (n=7)	20.7±3.97	
	Scopolamine (n=7)	22.1±4.14	
CRP	Curcumin (n=7)	0.2±0.08	0.258
	Control (n=7)	0.16±0.08	
	Scopolamine (n=7)	0.13±0.08	

DEMENTIA, DEPRESSION, DELIRYUM

SS – 023

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IS THERE A RELATIONSHIP BETWEEN VARIABILITY OF SERUM URIC ACID LEVEL AND COGNITIVE FUNCTIONS IN OLDER ADULTS?

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Aim: Uric acid (UA) is a major natural antioxidant that might have neuroprotective properties. The association of serum uric acid (sUA) and dementia are less clear. Low UA levels have been associated with an increased risk of dementia and worse cognitive function later in life. Some findings would support an association between sUA and cognitive function/dementia but the relationship is complex. In recent years there are some studies about sUa and depression association. Our aim in this study is to determine whether there is a relationship between the variability of serum uric acid level and cognitive function and depression in patients over 65 years of age.

Methods: Patients aged 65 and over who applied to the geriatric outpatient clinic of our hospital in 2019 were included in the study. Serum uric acid values were scanned from the hospital records of the patients included in the study. 92 patients whose 4 uric acid values were present in the system between 2008 and 2019 were included in the study. Variability of serum uric acid was calculated with 4 different values for each patient. The following parameters were calculated for variability of uric acid: Uric Acid coefficient of variation (Uric acid-CV). Spearman correlation was used for parameters that have abnormal distrubition

Results: The median age was 72 (±6). While 65.2% of the patients are women, 34.8% are men. 58.6% of patients had type 2 dm, 70.7% had hypertension, 25% had coronary artery disease. Uric Acid-Cov [0.17 (0.05–0.57) vs. 0.32 (0.09–0.52)] were found to be significantly lower in patients with normal cognitive function (p=0.02). As a result of statistical analysis, There were correlations between Uric Acid-CV and MMSE (r: -0.311, p=0.003), clock drawing test (r: -0.239, p=0.005), mini nutritional assessment (MNA) (r: -0.311, p=0.001), Yesavage Depression Score (r: 0.318, p=0.002).

Conclusion: This study showed a relationship between variability of serum uric acid and cognitive functions. There were correlations between variability of uric acid and depression, as well as nutritional status in patients over 65 years of age. To the best of our knowledge, this is the first study to report a significant correlation between variability of serum uric acid level and cognitive functions.

Keywords: variability of uric acid, cognitive functions, depression

DEMENTIA, DEPRESSION, DELIRYUM

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A NEW APPROACH IN DEMENTIA MANAGEMENT: MORALE HOUSE

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Introduction: Non-pharmacological treatments are important for the treatment of symptoms seen in Alzheimer's patients. Comprehensive Geriatric Assessment and anthropometric measurements of the Alzheimer patients who applied to a Demantia Day Care Center called as Morale House in Gaziantep province were made before the program and at the 6th month of the program. We aimed to show the effectiveness of the Morale House here.

Materıals and Methods: The initial and the latter assessments of 30 patients those found to be eligible for the program were completed. Patients underwent a standardized comprehensive geriatric assessment. Detailed patient history, the present medications (MED) and clinical testing modalities including geriatric depression scale (GDS), the minimental state examination (MMSE), Katz index of activities of daily living (ADL), Lawton Brody index of the instrumental activities of daily living (IADL), Mini Nutritional Assessment Tool (MNA), Tinetti Balance&Gait Assessment Tool (TBGA) and the Timed Up&Go test (TUG) results were collected. Current weight, height, body mass index (BMI), calf circumferences (CCM) of participants were measured. A bioelectrical impedance analyser was used to assess body composition parameters and skeletal muscle mass index (SMI). Hand grip strength (HGS) of the dominant hand was measured to determine muscle strength. SPSS for Windows 22.0 program was used for statistical analysis.

Results: Mean age of the 30 patients was 73.03 (min. 54 and max. 90) and number of male/female was 17/13. There was no statistically significance in ADL, IADL, MMSE, GDS, MNA, TBGA, CCM, TUG, SMI, MED between genders. HGS measurements were significantly higher in male group. GDS, TBGA, TUG, HGS scores were significantly better after six months in both genders (Table 1, 2). The 6th month assessment of ADL, MNA, GDS, TBGA, TUG, HGS in men were significantly better from the initial assessment (Table 1, 2). In female patients TUG score was significantly better at the latter assessment, but ADL was worse (Table 1, 2). A statistically significant moderate correlation was found between the ADL and IADL, MMSE, TBGA, TUG; also between IADL and TBGA, MMSE and MNA, SMI and CCM.

Discussion: In this study we found that the patients with Alzheimer's disease had an improvement in their physical performances and mood by participating the multi-component program. The male patients were found to benefit more from the program. The female patients may have wanted to participate less in social and physical activities for socio-cultural reasons. Several studies demonstrating non-pharmacological approaches had mild-stage patients with Alzheimer's disease (1.2.3.4.5). 33% of our patients had a MMSE score less than 18 and this may be the answer why cognitive improvements were not observed. Our study has shown that such centers for patients with demantia are beneficial and need to be widespread. Further multicenter prospective studies are needed for evaluation of these centers.

Keywords: Alzheimer's disease, non-pharmacological treatment, day care center

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Table 1. Comparison of Activities of Daily Living, Instrumental activities of daily living scale, Minimental State Examination, Geriatric Depression Scale, Mini Nutritional Assessment and Tinetti Balance and Gait Assessment of patients

GENDER	*ADL-*	*ADL+*	*IADL-*	*IADL+*	*MMSE-*	*MMSE+*
Female (n: 13)	5.3±1.18*	4.8±1.21*	5.3±1.60	5.1±2.03	19.3±3.63	18.5±4.23
Male (n: 17)	4.7±1.43	5.0±1.22	1.5±1.62*	2.3±1.80*	19.4±3.75	20.2±3.83
Total (n: 30)	5.0±1.33	4.9±1.20	4.9±1.20	3.5±2.34	19.3±3.64	19.5±4.04
GENDER	*GDS-*	*GDS+*	*MNA-*	*MNA+*	*TBGA-*	*TBGA+*
Female (n: 13)	3.4±2.75	3.6±2.66	11.3±2.21	11.0±2.16	22.3±3.17	22.3±2.95
Male (n: 17)	4.4±3.20*	2.1±2.26*	11.4±1.87*	12.3±1.53*	20.1±7.08*	22.7±5.39*
Total (n: 30)	4.0±3.00*	2.7±2.51*	11.4±1.99	11.7±1.92	21.0±5.75*	22.5±4.43*

ADL-: Initial Katz Index of Independence in Activities of Daily Living, IADL-: Initial Lawton&Brody Instrumental activities of daily living scale, MMSE-: Initial Minimental State Examination, GDS-: Initial Geriatric Depression Scale, MNA-: Initial Short Form of the Mini Nutritional Assessment Tool, TBGA-: Initial Tinetti Balance and Gait Assessment, ADL+: 6th month Katz Index of Independence in Activities of Daily Living, IADL+: 6th month Initial Lawton&Brody Instrumental activities of daily living scale, MMSE+: 6th month minimental state examination, GDS+: 6th month Geriatric Depression Scale, MNA+: 6th month Short Form of the Mini Nutritional Assessment Tool, TBGA+: 6th month Tinetti Balance and Gait Assessment, *: $p<0.05$

Table 2. Comparison of Calf circumference measurement, Body mass index, Handgrip strength, Timed Up and Go test, Sceletal muscle mass index, Number of medications of patients

GENDER	*CCM-*	*CCM+*	*BMI-*	*BMI+*	*HGS-*	*HGS+*
Female (n: 13)	35.3±2.90	35.1±2.89	31.3±3.00	31.5±2.99	17.2±6.02	18.42±4.22
Male (n: 17)	34.6±3.00	34.6±2.63	28.8±3.25	28.6±3.40	35.9±14.64*	37.2±15.66*
Total (n: 30)	34.9±2.93	34.8±2.71	29.9±3.32	29.9±3.48	27.8±14.89*	29.0±15.24*
GENDER	*TUG-*	*TUG+*	*SMI-*	*SMI+*	*MED-*	*MED+*
Female (n: 13)	17.6±5.96*	16.3±6.19*	11.1±0.99	11.1±1.06	5.0±2.00	5.3±2.09
Male (n: 17)	16.9±8.81*	13.8±5.79*	11.4±1.50	11.7±1.36	6.4±3.53	6.6±3.02
Total (n: 30)	17.2±7.59*	14.9±6.00*	11.3±1.29	11.4±1.25	5.8±3.01	6.0±2.70

CCM-: Initial Calf circumference measurement (cm), BMI-: Initial Body mass index (kg/m^2), HGS-: Initial Handgrip strength (kg), TUG-: Initial Timed Up and Go test (sec.), SMI-: Initial Sceletal muscle mass index (kg/m^2), MED-: Initial number of medications CCM+: 6th month Calf circumference measurement (cm), BMI+: 6th month Body mass index (kg/m^2), HGS+: 6th month Handgrip strength (kg), TUG+: 6th month Timed Up and Go test (sec.), SMI+: 6th month Sceletal muscle mass index (kg/m^2), MED+: 6th month number of medications *: $p<0.05$

DEMENTIA, DEPRESSION, DELIRYUM

SS – 025

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DELIRIUM AND FRAILTY: THE RESULTS FROM THE TURKISH DELIRIUM DAY 2019

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Introduction and Objective: As a result of aging world population, health problems of the elderly are encountered more frequently in daily practice. Delirium which is an acute confusional state with fluctuating course during the day is frequently observed in elderly patients experiencing acute stress such as hospitalization. Various strategies are being developed to detect and prevent this syndrome which causes serious morbidity and mortality worldwide. In our study, which we conducted on March 13, 2019 – the delirium awareness day-, we determined the point prevalence of delirium in geriatric inpatients in our country by using the Confusion Assessment Method (CAM), and revealed its relationship with frailty, a geriatric syndrome which is a common cause of serious morbidity.

Materials and Method: Sixty-two patients aged 60 years and older who were hospitalized in the Internal Medicine Clinic, were included in the study. The demographic information, comorbidities and medical history of the patients were obtained from the patient and/or first degree relatives, and patients' medications were obtained from the patient files. In order to assess nutrional, frailty and functional status; Mini Nutritional Assessment (MNA), FRAIL frailty scale (Fatigue, Resistance, Ambulation, Illnesses, Loss of weight), Katz Index of Independence in Activities of Daily Living (ADL) and Lawton-Brody Instrumental Activities of Daily Living scale (IADL) were applied to patients respectively. Furthermore; questionnaire about delirium risk factors and delirium evaluation test (CAM) were also applied to patients. If there was mortality during follow up, the date was stated.

Results: The mean age of the patients was 71.9±8.21. Twenty six patients (41.9%) were female and 36 (58.1%) were male. According to CAM, delirium was detected in 18 (29%) of the patients. According to the FRAIL scale, 21 (33.9%) patients were prefrail and 41 (66.1%) were frail. All 18 (100%) cases developing delirium were found to be frail. In multivariate logistic regression analysis, being older than 70 years, low Katz ADL score and low MNA score were found to be independent risk factors for delirium development.

Conclusion: Delirium and frailty are common in hospitalized elderly patients, and frailty is a risk factor for delirium. Health care workers should be aware of these geriatric syndromes, recognize them early, and develop delirium prevention strategies.

Keywords: delirium, geriatrics, geriatric syndromes, frailty

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Tables 1. The Relationship Between Delirium and Frailty

	Delirium (n=18)	*No Delirium (n=44)*	*p value*
Prefrail (FRAIL score 1–2)	0 (% 0)	21 (% 47.7)	0.00
Frail (FRAIL score >3)	18 (% 100)	23 (% 52.3)	

Table 2. Multipl Regression Analysis for Older Age, Polypharmacy, Urinary Catheter, KATZ ADL, MNA

	OR	*% 95 CI*	*p value*
Age >70 years	0.086	0.09–0.786	0.03
Number of Medicationsr of	1.148	0.909–1.448	0.246
Urinary Catheter	0.570	0.99–3.277	0.528
KATZ ADL	0.765	0.602–0.973	0.029
MNA	0.551	0.332–0.916	0.022

DEMENTIA, DEPRESSION, DELIRYUM

SS – 026

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COULD HAND GRIP STRENGTH AND WALKING SPEED TESTS BE AN INDICATOR FOR THE DIAGNOSIS OF POSSIBLE DEPRESSION IN ELDERLY?

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Aim: We aimed to demonstrate the usefulness of hand grip strength and walking speed tests in determining possible depression in patients admitted to the Geriatric outpatient clinic.

Materials and Methods: The files of 420 patients who were examined in the Geriatrics outpatient clinic for the first time in the last year were analyzed retrospectively. Clinical, laboratory and sociodemographic data were obtained from the patient files. Patients who were receiving depression treatment, who had dementia, cerebrovascular disease, Parkinson's disease, acute upper extremity pathology, and who could not be performed comprehensive geriatric assessment, geriatric depression scale, hand grip strength, and walking speed tests were excluded from the study. 180 patients who met the criteria were included in the study. In terms of depression screening, out of clinical evaluation, the Geriatric Depression Scale (GDS) short form was applied and those who scored ≥5 in GDS were "possible depression" (n=80); other patients were considered normal (n=100). All patients' walking speed tests of 6 meters were measured in m/s and their hand grip strength was measured with the Jamar brand hand dynamometer (kg). Hand grip strength and walking speed cutting values were taken according to EWSGOP2. Data were interpreted with SPSS 20.0 statistics program.

Results: Demographic data are given in table 1. The mean age of the patients was 74.5±7.04.119 patients were female (66%). 63 of female patients had GDS ≥5 (52.9%). In 17 of male patients, GDS was ≥5 (27.9%). GDS scores were significantly higher in women (p=0.001). In the group with possible depression in female patients,

hand grip strength, walking speed were statistically lower; number of drugs and comorbid, number of diseases were higher (respectively; p=0.000, p=0.000, p=0.005, p=0.009). Female patient averages are given in table 2. There was no significant difference in the possible depression group in male patients. Data of male patients were given table 3. In female patients, the GDS score was correlated by hand grip strength, walking speed, number of comorbid diseases and number of drugs (p=0.000 r=-0.347, p=0.000 r=-0.367, p=0.029 r=0.200, p=0.012 r=0.229, respectively). GDS score was correlated with hand grip strength in male patients (p=0.002 r=-0.388). Multiple linear regression analysis showed that the Geriatric Depression Scale score was associated with hand grip strength (β = -0.24, P = 0.012) and walking speed (β = -0.27, P = 0.005), but not number of diseases and drugs (β=0.01 p=0.92, β=0.13 p=0.28, respectively).

Conclusion: Depression and depressive symptoms are common in geriatric patients. In this study, it was seen that depressive mood decreased hand grip strength and walking speed in female geriatric patients. In male patients, it decreased only hand grip strength.

Keywords: depression, aged, walking speed

Table 1. Sociodemographic data of patients

	Total (n=180)	*Female (n=119)*	*Male (n=61)*	*p*
Age	74.5±7.04	74.2±6.7	75.07±7.5	0.44
BMI (kg/m^2)	29.02±6.19	30.06±6.4	27±5.2	0.001
Number of drugs	5.9±3.6	5.8±3.4	6.02±3.9	0.72
Number of diseases	2.68±1.2	2.7±1.1	2.62±1.4	0.66
MMSE	27.4±1.89	27.35±2.54	27.88±1.01	0.93
GDS	4.6±4	5.24±4.1	3.43±3.4	0.004
Walking speed (m/s)	0.72±0.33	0.68±0.32	0.81±0.33	0.002
Hand grip strength (kg)	20.49±7.92	16.64±4.92	27.99±7.2	0.000

Table 2. Data of female patients

	Possible depression (n=63)	*Normal (n=56)*	*P*
Age	73.9±6.4	74.5±7	0.66
BMI (kg/m^2)	30±7.7	29.9±5.04	0.93
MMSE	27.48±2.09	27.18±1.8	0.307
Number of drugs	6.6±3.7	4.8±2.9	0.005
Number of dieases	2.91±1.1	2.43±0.9	0.009
Walking speed (m/s)	0.59±0.26	0.80±0.32	0.000
HGS (kg)	15.03±4.6	18.4±4.6	0.000

Table 3. Data of male patients

	Possible depression (n=17)	*Normal (n=44)*	*p*
Age	77.2±6.4	74.3±7.7	0.17
BMI (kg/m^2)	26.2±5.4	27.4±5.1	0.46
MMSE	27.1±1.9	27.8±1.8	0.29
Number of drugs	6.7±3.9	5.7±3.9	0.35
Number of dieases	2.7±1.4	2.5±1.4	0.63
Walking speed (m/s)	0.74±0.40	0.80±0.27	0.47
HGS (kg)	25.8±8.2	28.8±6.7	0.16

ENDOCRINE DISEASES

SS – 027

Publication Hall: *Salon B*
Publication Start Date: *2020–10–17 11:03:00*
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THE EFFECT OF ANTITHYROID DRUGS ON OSTEOPONTIN LEVELS IN GERIATRIC GRAVES PATIENTS

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Purpose: Methimazole (MM) and propylthiouracil (PTU) are used successfully in Graves' disease (GD). In Graves' patients, TSH receptors are considered foreign and antibodies are produced against these receptors. In addition, it is known that increased oxidative stress is responsible in the pathology of autoimmune thyroid diseases. MM and PTU are also known as immunoregulatory drugs. Osteopontin (OPN) is considered a potent proinflammatory cytokine synthesized in many tissues. The aim of this study is to examine the effect of MM or PTU treatment on osteopontin levels in geriatric patients with Graves' disease.

Material and Method: 20 geriatric patients with Graves' disease and 20 healthy volunteers were included in the study. The patients were not receiving treatment before. PTU was started in 10 patients and MM was started in 10 patients. Blood samples were taken from the patients at the beginning of the treatment and in the second month of the treatment. Student T or Wilcoxon tests were used to analyze variables before and after comparisons.

Findings: There was no difference between the groups in terms of age and gender distribution (p=0.55, p=0.84). Pre-treatment OPN levels were significantly higher in patients with GD compared to the control group (p<0.05). OPN levels were similar in the patient groups that received MM and PTU before treatment. After 2 months of treatment, OPN levels were statistically significantly lower in both the MM and PTU groups compared to before treatment (p=0.02). Laboratory and demografic datas of the groups were shown in table 1.

Conclusion: OPN levels, which is a potent proinflammatory cytokine in GD, are decreased by both MM and PTU. The presence of anti inflammatory effects as well as immunomodulatory effects of antithyroid drugs have been demonstrated by the decrease in OPN levels. The use of MM or PTU in the selection of GD therapy in terms of anti inflammatory effect has not been found to be superior to each other.

Keywords: Graves' disease, osteopontin, antithyroid drugs

Table 1. Laboratory and demographic characteristics of the groups

Variables	*GD + MM*	*GD + PTU*	*Control Group*	*p*
Age (Mean ± SD)	68.2±10.7	64.5±8.6	66.7±15.1	0.55
TSH (mIU/L)	0.01±0.012	0.01±0.02	1.8±0.61	<0.001
ft4 (ng/dL)	3.20±6.58	4.60±6.10	1.32±0.21	<0.001
ft3 (pg/mL)	6.18±3.21	7.08±2.81	2.88±0.81	<0.001
Osteopontin (ng/mL)	39.77±22.2	46.10±37.01	21.94±7.58	0.01

± SD, Standart Deviation; P<0.005 statsitically significant. fT3, free triiodothyronine; fT4, free thyroxine, TSH, thyroid stimulating hormone;

ENDOCRINE DISEASES

SS – 028

Publication Hall: *Salon B*
Publication Start Date: *2020–10–17 15:00:00*
Publication End Date: *2020–10–17 15:06:00*

THE FREQUENCY OF HYPOTHYROIDISM IN ELDERLY WITH SUBJECTIVE FORGETFULNESS AND RELATED FACTORS

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Aim: There is a systematic increase in the prevalence of forgetfulness with age. And hypothyroidism can result in forgetfulness and other thinking problems. The effect of elevated thyroid stimulating hormone (TSH) and hypothyroidism treatment on cognitive function is less clear. We aimed to evaluate the frequency of hypothyroidism in older patients who complaining of subjective forgetfulness and to determine the relationship with factors related to forgetfulness

Methods: Between 2015 and 2019, patients who were admitted to our geriatrics outpatient clinic with complaining of subjective forgetfulness, were retrospectively analyzed. The patients were evaluated for thyroid function and divided into 5 groups as subclinical hypothyroidism, overt hypothyroidism, treated hypothyroidism, hyperthyroidism and euthyroid (normally). Cognitive functions were assessed with the Mini-Mental State Examination (MMSE). Vitamin B12, Vitamin D, folic acid, hemoglobin levels, number of comorbidities and number of drugs were assessed and depressed mood was assessed using the Yesavage Depresion Scale.

Results: 273 patients ≥65 years, (mean age 76.7+/-7.3 years, 177 Female, 96 Male) were enrolled to the study. 10 patients were excluded because of missing data. 5 (1.9%) patients were overt hypothyroidism, 1 (0.4%) was subclinical hypothyroidism, 2 (0.8%) were hyperthyroidism, 38 (14.3%) were treated hypothyroidism and 217 (81.6%) were euthyroid (normally). After that, only euthyroid and treated hypothyroidim groups evaluated for statistical analysis. Because the other groups were not enough. The association analyzed between euthyroid and treated hypothyroidism groups with independent T-test. The MMSE scores, number of comorbidities and number of drugs were significantly difference ($p<0.001$, in three of them). All three factors were significantly higher in the group of treated hypothyroidisim. There wasn't statistically significant difference between Vitamin B12, Vitamin D, folic asid and hemoglobin levels

Conclusion: In this study, the frequency of hypothyroidism in patients presenting with forgetfulness was not as often as expected and the MMSE scores were found better in the group of receiving thyroid therapy.

Keywords: hypothyroidism, cognitive functions, elderly

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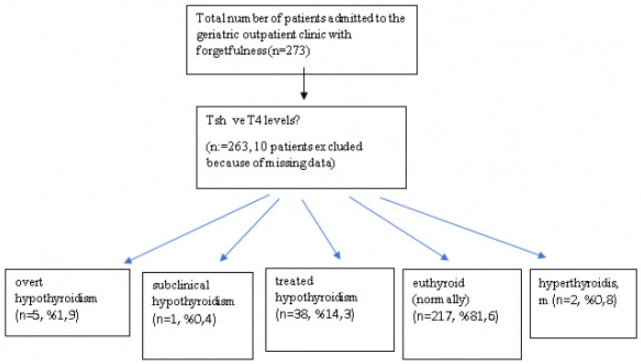

Figure 1. Study flow chart.

Table 1. The factors which can consequence with subjective forgetfulnes, the relationship theese factors between euthyroid and treated hypothyroidism groups (independent sample t test)

Variables	*Euthyroid, (normally) (n: 217)*	*Treated hypothyroidism (n: 38)*	*P value*
Yesavage depression scale	3.7±3.6	3±2.5	0.199
Lawton brody EADL	12.9±8.51	17.3±7.2	0.001*
KATZ, ADL	4.4±1.9	5.2±1.4	0.002*
Hemoglobin (Hb)	13±1.7	12.4±1.9	0.757
MMSE scores	19.8±8.2	24.7±5.9	0.000**
Vitamin d	31±19.8	33.6±19.8	0.513
Vitamin b12	550±406	567±391	0.818
Folic asid	7.6±4.5	7.69±2.5	0.940
Drug counts	5.2±3.4	7.5±3.5	0.001**
Comorbidity counts	2.6±1.3	3.5±1.05	0.000**

ENDOCRINE DISEASES

SS – 029

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Publication End Date: *2020–10–17 15:12:00*

FREQUENCY OF OBESITY AND DEPRESSION IN ELDERLY DIABETIC PATIENTS

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Introduction: The number and frequency of chronic diseases increase with aging. Obesity is a complex and multifactorial disease (1). The prevalence of obesity is increasing worldwide and affects women more (2). Obesity is a common health problem in patients with diabetes mellitus (3). In addition, depression is the most common psychiatric disorder in elderly individuals (4). It is aimed to determine the frequency of obesity and depression in geriatric patients with diabetes mellitus who applied to our outpatient clinic in this study.

Methods: The files and hospital electronic records of the geriatric patients with diabetes mellitus who applied to our outpatient clinic for a period of one year (January 1, 2019 – January 1, 2020) were examined. A total of 143 patients (85 females and 58 males) were included in our study. Patients with BMI between 25–30 were considered as overweight, between 30–40 as obese and 40 and over as

morbid obese. The standard Geriatric Depression Scale (GDS) was used to determine the prevalence of depression.

Results: The mean age of 143 patients included in the study was 70.38±4.76 years and the number of male/female gender was 58/85. It was determined that 32.9% of the patients were overweight and 51.7% were obese or morbid obese. According to the results of GDS performed to determine the frequency of depressive symptoms, 45.5% (65) of the patients had symptoms related to depression.

Discussion: The frequency of diabetes and obesity is common in our country and in the world. Approximately one third of the geriatric patients with diabetes mellitus who applied to our outpatient clinic were overweight and more than half were obese or morbidly obese. In addition, the presence of depressive symptoms in half of the patients requires assessment in terms of public health. Therefore, it would be appropriate to evaluate every geriatric patient admitted to the outpatient clinic in terms of diabetes mellitus, obesity and depression.

Keywords: obesity, diabetes, depression

Table 1.

N: 143	
Age (65–88)	70.38+4.76
Gender	
Male	58 (% 40.6)
Female	85 (59.4%)
Education	
Uneducated	74 (51.7%)
Primary school	45 (31.5%)
Secondary school	7 (4.9%)
High school	12 (8.4%)
College	5 (3.5%)
Marital status	
Married	109 (76.2%)
Other	34 (23.8%)
Depressive sypmtom	
GDS <5	78 (54.5%)
GDS >5	65 (45.5%)
Whom living with	
With family	128 (89.5%)
Alone	15 (10.5%)
BMI	
<20	1 (0.7%)
20–25	21 (14.7%)
25–30	47 (32.9%)
>30	74 (51.7%)
Smoking	
Yes	28 (19.6%)
No	115 (80.4%)
Alcohol	
Yes	6 (4.2%)
No	137 (95.8%)
Regular exercise	
Yes	24 (16.8%)
No	119 (83.2%)
Number of drugs used regularly (0–15)	5.30+2.80

ENDOCRINE DISEASES

SS – 030

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DIAGNOSTIC VALUE AND ACCURACY OF THYROID GLAND PALPATION: HEALTH SCREENING OF COMMUNITY DWELLING OLD AGED COHORT

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Aim: We aimed to examine diagnostic accuracy of physical examination (PE) of the thyroid gland (TG) in community dwelling old aged is to detect if it is a reliable method by comparing PE with ultrasonographic (USG) examination.

Methods: The study is part of a health project called "Health screening in older people in Ankara" with 1200 participants aged ≥65 years. Participants having difficulty in communication (n: 108), did not give consent for USG (n: 81), have incomplete laboratory tests (n: 59), mobility disorders and/or are bedbound (n: 54), were excluded. PE was performed by a geriatrician or ear nose throat surgeon, radiologic evaluation by a radiologist. PE and USG findings were compared. The data were analyzed using SPSS 20.0 package program.

Results: The median age of the study population is 71.17 years. Differences between thyroid nodule, thyroid nodule number, thyroid nodule size and goiter detection were all statistically significant when USG and PE compared, with P-values of all <0.001. PE of TG is calculated to have 31.0% sensitivity.

Conclusion: PE of TG in the old aged has a low sensitivity for TN and goiter. PE of TG has low diagnostic accuracy and has minimal effect in clinical decision making. Furthermore, detected nodules rarely turn into clinically relevant disease, leading to overdiagnosis and overtreatment. In specific circumstances, like suspicious cytologic results, PE can also be misleading. PE should always be combined with imaging methods, and with pathological examination if necessary, in risk groups for nodule and malignancy, even when no nodules or goiter is palpated.

Keywords: old aged, thyroid palpation, thyroid ultrasonography, diagnostic accuracy

ENDOCRINE DISEASES

SS – 031

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NNEUTROPHIL/LYMPHOCYTE RATIO CHANGES IN PATIENTS WITH VITAMINE D DEFICIENCY

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Introduction: Vitamin D deficiency is a very often situation in our country. Main effects of vitamin D are on calcium and bone metabolism but it also effects immune functions and inflammation. There are some studies showing that neutrophil/lymphocyte ratio in blood count can guide us about inflammation. In our study, we tried to

evaluate the contribution of vitamin D deficiency to inflammation by examining the neutrophil/lymphocyte ratios of patients with low and normal vitamin D levels.

Methods: Healthy patients who applied to internal medicine outpatient clinics in 2017 with complaint of fatigue were included in our study by scanning the hospital automation system retrospectively. In order to exclude other pathologies that may affect neutrophil and lymphocyte values, patients included who have a creatinine level below 1.3 mg/dl, TSH: 1–5 uIU/ml, B12 level above 150 pg/ml. In addition, patients with a CRP level above 5 mg/dl and anemia were excluded. Patients divided into two groups. Those with a vitamin D level below 10 ng/ml were accepted as the study group, and those with a vitamin D level above 20 ng/ml as the control group.

Results: A total of 3577 patients, 1184 male and 2393 female were included in the study. 742 patients constituted the study group (28.2% male – 71.8% female), 2835 patients constituted the control group (34.4% male – 65.6% female). The vitamin D levels of the study group was 7.5±1.7, while it was 31.8±14 for the control group (table 1). When both groups were compared in terms of neutrophil-lymphocyte counts and neutrophil/lymphocyte ratio, the neutrophil count of the study group was 4.19±1.38 (10^9/L), lymphocyte count was 2.53±0.72 (10^9/L), neutrophil/lymphocyte ratio was 1.76±0.72, also in the control group neutrophil count was 3.88±1.23 (10^9/L), lymphocyte count was 2.44±0.71 (10^9/L), and the neutrophil/lymphocyte ratio was 1.69±0.69. As a result of these, when the neutrophil/lymphocyte ratios of the two groups were compared, it was found that the neutrophil/lymphocyte ratio was significantly higher in the study group with low vitamin D (p: 0.01) (Table 1).

Discussion: Vitamin D is a molecule that has started to be emphasized more in the last decade and stands out with its properties that regulate immune functions and inhibit inflammation, beyond being a vitamin. In our study, we examined the change of neutrophil/lymphocyte ratio, which is considered to be an indirect indicator of inflammation, in parallel with vitamin D deficiency. When we compared the study group to the control group, we found that the neutrophil/lymphocyte ratio increased significantly with vitamin D deficiency. Studies conducted with healthy populations similar to ours in the literature also showed that vitamin D deficiency affects the neutrophil/lymphocyte ratio, and they attributed this to the absence of vitamin D's anti-inflammatory activity. As a result, vitamin D replacement provides benefits in terms of protecting patients from possible cardiovascular events and autoimmune diseases with its anti-inflammatory effect. As a last word, we think that replacing vitamin D deficiency, which is seen in our outpatient clinics at a rate of up to 90%, should not be overlooked.

Keywords: Vitamin D, neutrophil count, lymphocyte count, neutrophil/lymphocyte ratio, inflammation

Table 1.

		Study		Control	
		n	%	n	%
Sex	Male	209	28,2	975	34,4
	Female	533	71,8	1860	65,6
		Mean±SD	Min-Max	Mean±SD	Min-Max
Age		42,2±13,7	18-70	47,1±14	18-70
Vitamin D (ng/ml)		7,5±1,7	2-9,9	31,8±14	20,1-322

Table 2.

	Study		Control		
	Mean±SD	Min-Max	Mean±SD	Min-Max	p
Lymphocyte (10^9/L)	2,53±0,72	0,72-6,04	2,45±0,71	0,64-8,57	0,04
Neutrophil (10^9/L)	4,2±1,39	1,07-9,49	3,88±1,23	0,96-12,49	<0,01
Ne/Ly ratio	1,76±0,72	0,56-7,42	1,69±0,69	0,36-9,46	0,01

GERIATRICS AND COVID-19

SS – 033

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Publication End Date: *2020–10–17 15:36:00*

WHICH PARAMETERS AFFECTED CAREGIVER AWARENESS IN COVID-19 PANDEMIC?

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Introduction: COVID-19 (new coronavirus) pandemic inversely affected too many areas world-wide such as health care, economics, industry, tourism, etc. (1). In this study, we aimed to clarify the parameters which influenced the attachment of caregivers to measures.

Methods: This cross-sectional study was conducted for a period of 2 months, from March to May 2020. A questionnaire interrogated awareness levels of caregivers for the COVID-19 pandemic. The questionnaire consisted of general information about the pandemic and demographic data. Participants were asked for this questionnaire on the internet and telephone conversation. We also evaluated the life quality of caregivers with EQ-5D. SPSS-22 was used for data analysis.

Results: The study population was composed of 79 women and 21 men. Caregivers aged between 25 and 39 were more adherent to social isolation measurement (p=0.031) than others. The worst supporter of this measure was aged 18–24 (p=0.001). The participants used more than one resource for being informed about the COVID-19 pandemic were more adapted to distance education than others (p=0.022). They also supported the home office style working than others (p=0.039). Caregivers that were willing to gain more information about pandemics were more adherent to social isolation (p<0.01). The life quality of the caregivers who were afraid of infecting their patients was diminished significantly (p<0.01, r=0.310).

Conclusion: For the management of a pandemic, public awareness, and their demand to adhere to preventive measures are crucial. Health care workers are in a vital position for informing the public, mostly caregivers. More studies could be useful in this area.

Keywords: COVID-19, new coronavirus, caregiver

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GERIATRICS AND COVID-19

SS – 034

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Publication End Date: *2020–10–17 15:42:00*

POLYPHARMACY FREQUENCY: THE RELATIONSHIP BETWEEN POLYPHARMACY AND MORTALITY IN COVID-19 (+) OLDER ADULTS

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Background: The COVID-19 pandemic affects millions of people worldwide. Older age is a significant risk factor for COVID-19 related death. Polypharmacy, on the other hand, is an important geriatric

syndrome that causes morbidity and mortality in the older adults with increasing age.

Aim: To determine the relationship between polypharmacy and COVID-19 (+) related mortality

Methods: All older adults >60 years old who had positive COVID-19 PCR tests between March 2020 and June 2020 were included in the study, which was designed retrospectively. Polypharmacy is defined as drug use of five or more.

Results: 110 people of >60 years old were included in the study. Fifty-nine (53.6%) of the participants were male and the mean age was 70.5 (64.0–78.2). The prevalence of polypharmacy in patients diagnosed with COVID-19 infection was 31.9% (n=35). Eighty-two (78.8%) of participants had pneumonia. Mortality occurred in 24 (21.8%) of the participants. There was no relationship between polypharmacy and mortality (p=0.128). In multivariate analysis older age and the presence of pneumonia were associated with mortality (Odds ratio (OR) for age: 1.[12] 95% CI 1.05–1.19, p<0.001 and OR for the presence of pneumonia: 0.[20] 95% CI 0.06–0.70, p=0.011).

Conclusion: The prevalence of polypharmacy in individuals diagnosed with COVID -19 infection was similar to the literature. There was no relationship between polypharmacy and mortality. The most effective factors on death in people with COVID -19 infection were older age and the presence of pneumonia.

Keywords: older age, COVID, polypharmacy, mortality, coronavirus

HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 036

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Publication Start Date: *2020–10–17 16:15:00*
Publication End Date: *2020–10–17 16:21:00*

CLINICOPATHOLOGICAL FEATURES AND SURVIVAL OUTCOMES OF OPERATED GERIATRIC BREAST CANCER PATIENTS

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Aim: Breast cancer is the most common malignancy among women and remains principally a disease of old ages; with 35–50% of cases occurring in women older than 65 years[1]. Even mortality for cancer increases with aging: 19.7% between 65 and 74 years; 22.6% between 75 and 84 years; and 15.1% in 85 years or more[2]. It has been extensively reported that breast cancer-related mortality increases with age, regardless of disease stage. In our study, we aimed to evaluate the clinicopathological and demographic characteristics of operated breast cancer patients who were older than 65 years diagnosed in our hospital.

Materials and Methods: We evaluated 333 patients who were operated for stage 1–3 breast cancer at 2003–2016. We obtained the data from the computer system of our hospital. We used SPSS v. 22 for statistical analysis.

Results: Patient's median age was 73 (range: 65–95) years. Median survelience was 82 months (range7–199). Eighty patients were died in this period (80/299, 26.7%). Median overall survival was 191 months (171–210). Histopathological features of tumors were summarized at Table 1. Characteristics of breast surgery were summarized at Table 2. Median survival and mortality rates for each moleculary subtypes were showed at Table 3. Adjuvant radiotherapy was performed approximately 92% of patients with breast conserving surgery. Hormonotherapy was given to all the patients with hormone-receptor positive breast tumor. Chemotherapy could be applied to every fit patient with indications of chemotherapy use regardless of physiological age and the tolerance of the patients was very good.

Conclusions: Distribution of molecular subtypes of breast cancer in elderly patients are similar in the general population. On the other hand, molecular subtypes had no effect on survival in our elderly patient group (Figure 1). This finding is different from general population. Because, we know that especially triple negative subtype of breast cancer has poor prognosis. Is there any change in tumor biology with advanced age? Investigation of this situation should be considered.

Keywords: breast cancer, elderly patients

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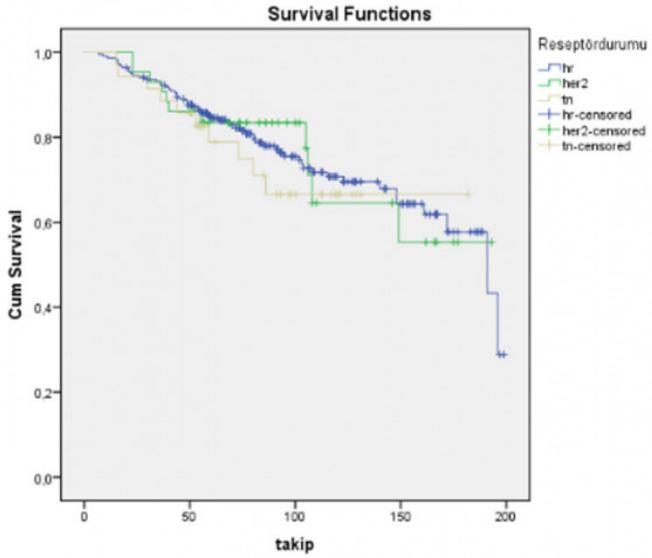

Figure 1. Overall Survival of Histological Subtypes

Table 1. Histopathological Features

Total, n	333
Histological grade, n (%)	G1:36 (13) G2:114 (42) G3:124 (45)
Nuclear grade, n (%)	G1:33 (10.5) G2:163 (51.5) G3 123 (38)
Molecular subtypes, n (%)	HR+: 245 (73.6) Triple negative: 40 (12) Her+: (14.4)
Diameter of tumour, median, cm (range, cm)	2.45 (0.3–15)
Lymph node status, N (%)	N0:172 (54.4) N1:65 (19) N2:42 (13.2) N3:36 (11.4)

Table 2. Characteristics of Breast Surgery

Type of surgery, n (%)	BSC: 94 (28.2) Mastectomy: 238 (71.8)
Type of axillary surgery, n (%)	SLND: 145 (43.5) ALND: 187 (56.5)
Laterality of surgery	Right: 142 (45.2) Left: 159 (50.6) Bilateral: 13.1 (4.1)

Table 3. Median Survival and Mortality Rates for Each Molecular Subtypes

Subtypes	Months (range)	Death, n (%)
HR+	151 (141–161)	59/221 (26.6)
Triple negative	138 (116–161)	11/43 (25.5)
Her2+	146 (124–169)	10/35 (28.5)

HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 038

Publication Hall: *Salon B*
Publication Start Date: *2020–10–17 16:27:00*
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GASTRIC CANCER IN ELDERLY PATIENTS; SINGLE CENTER EXPERIENCE

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Bakırköy Dr. Sadi Konuk Research and Training Hospital

Introduction: Gastric cancer (GC) is an important health problem, being the fifth most common cancer and the third leading cause of cancer death worldwide (1). In this retrospective study we aimed to assess the demographic and clinicopathological features, treatments and survivals of GC patients who are 65 years and older.

Material and Methods: The files of 195 patients with a diagnosis of GC who admitted to our clinic in between 2014 and 2019 were evaluated. The patients who were 65 years and older at diagnosis and who had one or more follow-ups were included in the study. The demographical features, tumor stages at diagnosis, the treatments given and if present side effects and last visit dates or exitus dates were recorded. SPSS 22.0 program used for statistical analysis. Patients were included in the study regardless of the gastric tumor localization and concomitant chronic disease, but other cancers.

Results: Totally 91 of GC patients were 65 years and older. Median age was 71.9 (65–86) years. Sixty-eight (74.7%) were male. Twenty-two of them (24.1%) had histologically signet-ring cell carcinoma and the rest 69 (75.9%) had adenocarcinoma. In 11 patients primary tumor localization was cardia. Five of the patients were stage I, 7 were stage II, 33 were stage III and 46 (50%) were stage IV at diagnosis. Forty-two of the patients were operated, 11 had partial gastrectomy and 31 had total gastrectomy. Twenty-one patients were received adjuvant radiotherapy and 3 had palliative radiotherapy. Chemotherapy was performed to 86 patients and 6 of them had neoadjuvant treatment. Docetaxel-cisplatin-fluorouracil combination was the most performed chemotherapy regimen and it was used in 42 patients. When this analysis was done, 40 of the patients were still alive. Overall survival was 14.0 and 27.7 months in patients older than 65 years and younger than 65 years, respectively. When we examine stage 4 patients, overall survival was 10.1 and 11.4 months, in patients older than 65 years and younger, respectively. The fact that there is a higher rate of early stage disease in the patients younger than 65 years of age may explain the longer overall survival of these patients.

Conclusion: Our data have shown that elderly gastric cancer patients may tolerate and benefit from therapy if handled carefully and multidisciplinarily according to their medical conditions.

Keywords: elderly, gastric cancer, chemotherapy, radiotherapy

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 040

Publication Hall: *Salon B*
Publication Start Date: *2020–10–17 16:39:00*
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VITAMIN D LEVEL IN GERIATRIC CANCER

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Aim: The aim of the study is the examination of the relationship between the initial application vitamin D level and the disease stage in the patients, aged 70 years and older, diagnosed with cancer independent of tumor type. The relationship between cancer and vitamin D has been investigated for a long time, but no specific result has been achieved. In some studies, it has been concluded that vitamin D intake caused a decrease in cancer mortality rather than cancer incidence. More than three-fourths of people with a variety of cancers have low levels of vitamin D, and the lowest levels are associated with more advanced cancers, a new study suggests.

Material and Methods: In the 50 geriatric patients diagnosed with cancer over the age of 70 who applied to our hospital, the initial application vitamin D level was checked before making a treatment decision. Retrospectively, the relationship between vitamin D level and cancer stage was investigated independently of the cancer type.

Findings: 50% of the patients were female (n: 25) and 50% were male (n: 25). Eighteen of the male patients were early-stage (stages 1 and 2) and locally advanced stage (stage 3) (72%), while 7 were metastatic (stage 4) (28%). Of the female patients, 12 were early and locally advanced stages (48%), 13 were metastatic (52%). In 64% of male patients, vitamin D deficiency was found, 28% were insufficient, and 8% were in the normal range. There was a vitamin D deficiency in 32% of female patients, and insufficient in 36% of them, and a normal range of 32%. 30 of total patients were in the early and local advanced stages and 56.6%, 26.7%, and 16.7% of them had deficient, insufficient, and normal Vitamin D levels, respectively, while the remained patients were in the metastatic stage and 35.0%, 40.0%, and 25.0% of them had deficient, insufficient, and normal Vitamin D levels, respectively. All of the metastatic patients and 80% of the patients at the early-local advanced stage were alive at the end of the first year. The relationship between the stage of the disease and vitamin D level was not statistically significant (p: 0.388).

Result: Vitamin D deficiency is a common condition in the elderly population. Cancer frequency also increases with age. It has been deduced from this study that vitamin D deficiency or insufficiency is not directly related to the stage of geriatric cancer patients. But the inclusion of more patients and analyzing according to specific tumor types may lead to different results. As a result, many studies are showing the protective and positive prognostic effects of vitamin D against cancer. Therefore, it may be thought that taking precautions against vitamin D deficiency, using vitamin D preparations if necessary, and exposure to UVB beam, which is an important source for vitamin D, during the day in a controlled and appropriate manner, plays an important role in the treatment process of geriatric age group cancers.

Keywords: cancer stage, vitamin D, geriatric patients

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 041

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ANALYSIS OF INTRACRANIAL RECURRENCE PATTERNS BASED ON MOLECULAR SUBTYPES IN BREAST CANCER BRAIN METASTASES

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Purpose: Brain metastases from breast cancer in geriatric patients are frequently managed with whole brain radiotherapy (WBRT) but the impact of sub-type on intracranial recurrence patterns after radiation has not been well-described. We evaluated intracranial recurrence patterns and the survival outcomes based on molecular subtypes of breast cancer in geriatric patients with brain metastasis.

Material and Methods: We retrospectively reviewed 29 breast cancer patients treated for brain metastases, between 2006 and 2018. Patients were divided into four groups based on the tumor molecular subtype: luminal A (Estrogen Receptor [ER]/Progesterone Receptor [PR] positive, human epithelial growth factor receptor-2 [HER2] negative), luminal B (ER/PR positive, HER2 Positive), HER2 (HER2 positive and ER/PR negative), and Triple negative (TNBC). SPSS was used for statistical analysis.

Results: The median follow-up time for patients was 67 months (range: 35.1–98.8 months). The median survival of all patients was 75 months (range: 69.6–80.3 months), and median disease free survival was 67 months (range: 31.7–102.2 months). 2-year overall survival rate was 92%. Of the 29 patients, 37.9% had HER2 (+) subtype, 31% had TNBC subtype, 20.7% had luminal B, and 10.3% had luminal A. 38% patients had a solitary brain metastasis while 62% patients had multiple metastases. Patients with different molecular subtypes had different survival rates; the TNBC group showed the lowest median survival (71 months) which was not statistically significant compared with the groups. Furthermore, local recurrence was greater in TNBC subtype while patients with HER2 (+) demonstrated higher rates of new brain metastases after initial treatment. Stereotactic radiation therapy (SBRT) + WBRT was first choice in reirradiation setting.

Conclusion: In geriatric breast cancer patients with brain metastasis, survival rates were different based on the molecular subtype of the tumor like the young breast cancer patients, despite various local and systemic treatments.

Keywords: geriatric patients, breast cancer, radiotherapy, survival outcomes

HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 042

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DETERMINANTS OF SCREENING AWARENESS AMONG TURKISH OLDER MEN POPULATION

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Objective: Early detection of cancers gives a chance to cure. Therefore, screening modalities are very essential. Although, there is at least one center in each province, screening has not yet reached to the desired levels. Aim of this study is to determine participation and awareness rates of cancer screening, and determinants of these rates in the older male individuals.

Materials methods: Every geriatric male patients admitted to the Geriatrics/Oncology Unit between January 2019-April 2019 were evaluated for enrolling into the study. Among 308 patients, 202 patients compatible with inclusion criteria were included. Demographic characteristics (age, marital status. . etc.), Geriatric evaluations (MMSE, medical history. etc) and recommendation status of the patients were analysed to find statistically significant differences between screened and non-screened population. Spss V23.0 was used for analysis.

Results: Recommendation of screening, advanced age and higher MMSE scores were statistically significant determinants in favor of screening with a P-value <0.001.

Conclusion: Cancer screening awareness and performance is low with a rate of 22.7%. Screening awareness was increased with higher MMSE score and aging. The education of individuals and the recommendation of screening as state policy seem to be the most important determinants to increase screening awareness. Recommendation is the most crucial, and is also the only modifiable factor for increasing screening rates. Policies to increase awareness of all health care workers and public on cancer screening should be developed and health care workers should be encouraged for cancer screening recommendation since this is most economical and healthy way as the main step in cancer management is early diagnosis and prevention

Keywords: geriatrics, cancer screening, male

HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 043

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Publication End Date: *2020–10–17 17:03:00*

OLDER HEMOPHILIC PATIENTS, SINGLE CENTER EXPERIENCE: BASIC DEMOGRAPHIC AND CLINICAL FEATURES

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Introduction: Hemophilia is an inherited disease linked to X chromosome. It occurs with factor 8 (hemophilia A) or factor 9 deficiency (hemophilia B). Life expectancy has increased with the production of effective and safe factor concentrates in hemophilia, which was a

life-threatening and disabling disease. While the average age was 7.8 in 1939, it increased to >70 in 2001. With advancing age, cardiovascular disease, malignancy, liver disease, kidney failure, diabetes, hypertension, joint disease, erectile dysfunction, genitourinary diseases, prostate hypertrophy, cataracts, etc. in hemophilia patients. Age-related comorbidities come to the fore (1). Liver failure has been shown as the most common cause of death. However, there is relatively little experience in treating the elderly population and age-related diseases.

Aim: It is to be able to reveal the clinical features of our elderly hemophilia patients, whose follow-up and treatment are continuing, in our center, and to convey our experiences.

Method: There are six hemophilia patients followed in outpatient clinic conditions at the Istanbul Medicine Faculty hospital. Sociodemographic and clinical features are defined based on hospital records and patient files.

Results: A total of 6 patients with hemophilia are being followed, 5 male and 1 female. Average age is 75 (min: 68 max: 90). Follow-up time is 5 years. Two of the patients are siblings and hemophilia B is diagnosed. Due to intra-articular bleeding complaints, joint pathologies have developed and require executive devices in ambulation. Malignant melanoma/bladder tm in one patient and gastric cancer in one patient are under active chemotherapy treatment. In our female patient, Fv leiden is heterozygous and is receiving coumadin treatment due to pulmonary embolism/AF. One of our male patients had osteoporosis and received oral bisphosphonate therapy. Our oldest patient had Parkinson's/Dementia/Depression diagnoses. No transfusion related hepatitis c was detected in any of our patients.

Conclusion: The problems faced by hemophilia cases are that morbidities not directly related to hemophilia occur in these patients. Although these problems are frequently encountered in adults of the same age, these problems are complicated for both patients and physicians in daily practice. CVD, cancer, chronic kidney disease, obesity, neurological problems, BPH, biopsy, dental treatments and all other surgical procedures cause many additional problems in elderly hemophilic cases (2). The medical conditions that arise to provide the best support to these cases should be handled as multidisciplinary, along with physiological, psychological and social problems.

Keywords: hemophilia, older adults

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Table 1. Demographic and Clinical Features of Patients

	Patient-1	*Patient-2*	*Patient-3*	*Patient-4*	*Patient-5*	*Patient-6*
Gender	Male	Male	Male	Male	Female	Male
Age	90	70	72	80	70	68
Bmi (kgm^2)	19	26	24	26	30	22
Hemophilia type	B	B	A	A	B	A
Smoking	Former	Former	Current	Former	Never	Former
Alcohol	Never	Never	Former	Former	Never	Social
Comorbidities	Parkinson's disease	Gastritis	COPD, hyperlipidemia	Hypertension, coronary artery disease, BPH	Pulmonary embolism, asthma, AF, hypertension, F V leiden, bronchiectasis	Osteoporosis
Mobility	Immobile	Mobile	Walking device	Walking device	Walking device	Walking device
Polypharmacy	+	-	-	-	+	-
Viral hepatitis	-	-	Hep-B	-	-	–
Hemarthrosis	-	-	+	+	-	+
Dementia	+	-	-	-	-	-
Dysphagia	-	-	-	-	-	-
Sleep disorder	+	-	+	+	+	-
U. I/f. I	-/-	-/-	+/-	-/-	+/-	-/-
Chronic pain	+	-	+	+	+	+
Adl	2/6	6/6	5/6	6/6	5/6	6/6
Iadl	2/8	8/8	8/8	8/8	8/8	8/8
Falls	+	-	-	+	+	+
Depression	+	-	-	+	+	+
Malignancy	Gastric cancer	-	Metastatic melanoma, bladder cancer	-	-	-
Mmse	18/30	30/30	29/30	30/30	30/30	30/30
Factor replacement	+	+	+	+	-	+

HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 045

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EFFICACY OF FOLFIRINOX IN ADVANCED AGE PATIENTS WITH METASTATIC PANCREATIC CANCER

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Introduction: Pancreatic cancer (PC) is an extremely lethal malignancy as being the eighth leading cause of death in both men and women worlwide. It is rarely seen before the age of 45, but then its incidence increases rapidly. Five year survival after surgical resection is approximately 30% for lymph node negative patients, but it is only 10% for lymph node positive patients. In advanced stage, five year overall survival (OS) is 8.5% and median overall survival is between 6–12 months In advanced age PC patients, poor performance status and comorbidities make the treatment decision difficult. In this study, it was aimed to compare the efficacy of 5-fluorouracil, oxaliplatin, irinotecan, calcium folinate (FOLFIRINOX) regimen in patients over 65 years of age againist its efficacy in younger patients, retrospectively

Method: Patients who were followed up in the Oncology clinic between 2016–2018 were reviewed and only metastatic stage patients were included in the study. The patients who were under the age of 18, who were not in the metastatic stage and whose data were not available were excluded. The patients were grouped into >65 years and ≤65 years.

Results: A total of 24 patients, 11 men and 13 women, were included in the study. The median age was 57 years (33–76). There was no statistically significant difference between the age groups in terms of gender and metastasis localization. Although the rate of comorbidities was higher in the group over 65 years of age, it was not statistically significant **(Figure 2).** In our study, the median overall survival was found 10 months in the group over 65 years of age and 15 months in the younger age group (log rank p=0.041) **(Figure 1).**

Discussion: In our study, it was observed that with the FOLFIRINOX regimen, a longer survival was achieved in PC patients aged 65 and under. This study is retrospective and provides real life data. It should be supported by studies with a larger patient population.

Keywords: pancreatic cancer, old age, survival

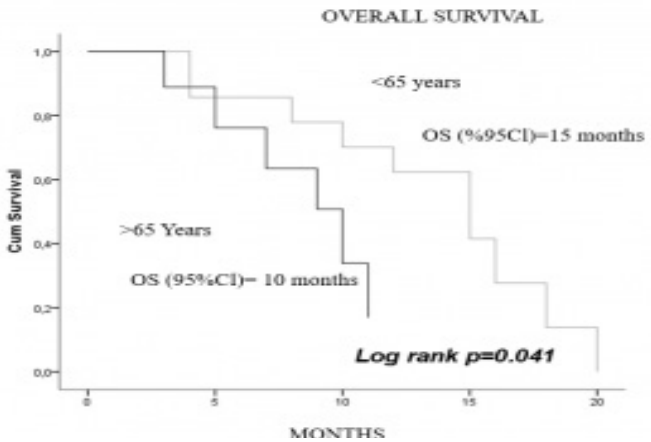

Figure 1. Overall survival by age of groups.

			Patients (n=24)	≤65 (n=15)		>65 (n=9)		
			n	n	%	n	%	p
Sex		male	11	8	53,3	3	33,3	0,341
		female	13	7	46,7	6	66,7	
Age (median)		years	57(33-76)	54 (33-65)		69 (66-76)		<0,001
Comorbidity	Hypertension		4	1	6,7	3	33,3	0,09
	Diabetes mellitus		3	1	6,7	2	22,2	0,265
ECOG PS		0	14	9	60	5	55,6	0,831
		1	10	6	40	4	44,4	
Localization of metastasis	Liver		18	11	73,3	7	77,8	0,808
	Periton		1	1	6,7	0	0	0,429
	Lung		2	1	6,7	1	11,1	0,703
	Distant lymph node		3	1	6,7	2	22,2	0,265
	Bone		3	2	13,3	1	11,1	0,164
Current Status		Alive	8	5	33,3	3	33,3	

Figure 2. Patients characteristics.

HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 046

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COMPARISON OF ESOPHAGOGASTRODUODENOSCOPY AND COLONOSCOPY FINDINGS IN ADULT AND GERIATRIC PATIENTS WITH IRON DEFICIENCY

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Introduction: Iron deficiency is a more common clinical condition than iron deficiency anemia. On the other hand, it has been clearly demonstrated that endoscopic examinations should be performed in patients with iron deficiency anemia (IDA), while there is no consensus on this issue for iron deficiency (ID) patients. The aim of this study was to determine the prevalence of severe gastrointestinal lesions and gastrointestinal malignancies, identified by endoscopy, by comparing IDA patients with ID patients without anaemia.

Patients and Methods: The data of patients with iron deficiency who underwent endoscopy between 01/2014–01/2018 in the endoscopy unit of the Gastroenterology Department of a university hospital were retrospectively reviewed. In our study, 571 iron deficiency patients in adult and geriatric age groups were included. Patients were divided into two groups according to the presence of anemia. 292 patients with IDA and 279 patients with ID were compared in terms of esophagogastroduodenoscopy (EGD) and colonoscopy findings, demographic characteristics, chronic diseases and drug use.

Results: There was no significant difference between patients with ID and IDA in terms of the incidence of endoscopic lesion in EGD or colonoscopy. The prevalence of malignancy was significantly higher in patients with IDA compared to patients with ID (p=0.004). Among chronic diseases, hypertension (HT), diabetes mellitus (DM), atherosclerotic heart disease (AHD), atrial fibrillation (AF) and chronic kidney disease (CKD) are associated with IDA patients significantly more than ID patients. CRP levels were significantly higher in patients with IDA than patients with ID (p<0.001). CRP median in IDA patients with malignancy was significantly higher than in IDA patients without malignancy (p<0.001). The use of proton pump inhibitor (PPI), ASA, clopidogrel, warfarin, new oral anticoagulant drugs, and combinations of PPIs with ASA and warfarin were significantly higher in patients with IDA. The incidence of 59 colonoscopy lesion in the

geriatric age group was significantly higher in patients with IDA than in the adult age group (p=0.012).

Conclusion: There was no difference in the incidence of endoscopic lesions between patients with ID and IDA. However, the risk of malignancy is significantly higher in IDA patients. EGD and colonoscopy should be performed together in both IDA and ID patients aged 50 years and older. In geriatric patients, if anemia is present, all gastrointestinal system should be evaluated endoscopically, even if a lesion to explain anemia is detected in the EGD or colonoscopy.

Keywords: iron deficiency, endoscopy, anemia, geriatric age, malignancy

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 047

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Publication Start Date: *2020–10–17 17:42:00*
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THE PHYSICIAN ATTITUDES TOWARDS HIGH ERYTHROCYTE SEDIMENTATION RATE IN HOSPITALIZED OLDER ADULTS

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Introduction: Erythrocyte sedimentation rate (ESR) is a reliable and simple laboratory marker and its higher values might be associated with some worse clinical situations. Although giving valuable information about diagnosis or other clinical problems of the patients, its clinical usage rates in daily practice maybe different according to the physician'preferences. We aimed to determine the physician attitudes towards the high ESR in hospitalized older adults in an internal medicine clinic.

Methods: The patients hospitalized in an internal medicine clinic between October 2015 and October 2019, were included in this retrospective study. Totally, 2110 patients aged 60 years or over were detected as having measured ESR between these study periods. The ESR that over 30 mm/hour was determined as higher ESR. There were 432 patients (20.5 percent) who had ESR over 30 mm/h. Age and gender of the patients, physician attitudes (toward re-measured or not re-measured) to high ESR, C-reactive protein (CRP) and hemoglobin levels, and diagnoses were recorded. Patients were divided into quartiles according to ESR as group 1 (31–39 mm/h), group 2 (40–51 mm/h), group 3 (52–67 mm/h) and group 4 (68–140 mm/h).

Results: Of 432 patients, median age was 74 years (range: 36) and 61.8 percent was female. Not re-evaluated patients for high ESR was found to be with a very high rate as 65.7% (n=284). Re-evaluated ESR (n=148) was resulted in returning normal range in 50 patients (33.8 percent). The rate of patients with ESR 100 mm/h or over was 7.4 percent (n=32). Group 4 was found to be having the lowest rate of returning in normal range of ESR when compared to the others (15.6% vs. 41.7%, p=0.017). Malignancy, infection and rheumatologic disorders rates were not different between groups. Having hematological problem was found to be higher in patients with ESR 100 mm/h or over than without (12.5 vs. 3.5 percent, p=0.036). There were a positive correlation (rho=0.221) between ESR and CRP levels (p<0.001), and negative correlation (rho=-0.348) between ESR and hemoglobin levels (p<0.001).

Conclusion: It was shown in this study that physicians were more prone to re-evaluate of ESR if the level was greater than 68 mm/h and ESR was significantly correlated with CRP and hemoglobin levels. It was also shown that hematological problems were more common in patients with ESR 100 mm/h or over than without. Further prospectively designed studies are needed to clarify these points.

Keywords: erythrocyte sedimentation rate, older, hematologic disorders

HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 048

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CHANGES OF BIOIMPEDANCE ANALYSIS IN LARYNX CANCER PATIENTS UNDERGOING RADIOTHERAPY ACCORDING TO AGE OF PATIENT

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Objective: The prevalence of malnutrition is high in patients with larynx cancer due to tumor location and multidisciplinary treatment including surgery, chemotherapy and radiotherapy (RT). During radiotherapy and chemoradiotherapy (CRT), while treatment induced oral mucositis and esophagitis advanced, the percentage of malnourished patients raised. In this study we studied changes in bioimpedance analysis during treatment with RT and CRT.

Materials and Methods: Data from 32 larynx cancer patients (stages I–IV) were analyzed. While ages of 12 patients were 60 or younger, ages of 20 patients were greater than 60 and they are classified as geriatric. All of them were irradiated with the doses of 54–70 Gy. Bioimpedance measurements were body weight (BW), fat mass (FM), total body water (TBW), basal metabolic rate (BMR), free fat mass (FFM), body mass index (BMI). Bioimpedance measurements were done beginning of RT, at weeks of 4 and 6 of treatment. All patients had data at 4th week of RT. However, only 20 patients had data at 6th week of radiotherapy. Eight of them are ≤60, twelve of them are >60.

Results: While BW, TBW, BMR, FFM, BMI were statistically significantly between beginning and 4th week of RT, only TBW and FFM were different beginning and 6th week of RT in non-geriatric patients. While BW and BMR were statistically significantly between beginning and 4th week of RT, only FM were different beginning and 6th week of RT in geriatric patients.

Conclusion: Bioimpedance parameters affected by between beginning of RT and different weeks of RT as well as in geriatric and non-geriatric patients are different. This difference is due to the change in the body's response to treatment stress during different weeks of RT and due to age-related changes in the body.

Keywords: larynx, cancer, bioimpedance, radiotherapy and chemoradiotherapy

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HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 049

Publication Hall: *Salon B*
Publication Start Date: *2020–10–17 17:54:00*
Publication End Date: *2020–10–17 18:00:00*

CANCER STATISTICS FOR THE PATIENTS AGED 85 YEARS AND OLDER IN THE TURKISH POPULATION: A RETROSPECTIVE ANALYSIS

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Objectives: The life expectancy for Turkish men is currently 75 years and for women 81 years. The rate of adults aged 85 years and older has been rising steadily. The aim of the study was to evaluate the cancer distributions and prognosis for the patients aged 85 years and older.

Methods: The data of 347 patients were retrospectively reviewed. The clinical and histopathological data of the patients were recorded. Kaplan Meier method and Cox regression analysis were used for overall survival (OS) analysis.

Results: The median follow-up period was 8.8 months (range: 0–69.4 months). The percentages of female and male patients were 53% and 47%, retrospectively. The median age at diagnosis was 87 years (range: 85–104 years). The median OS was 13±1.5 months (9.9–16 months). In all patients, one, three, and five years overall survival rates were 51%, 17.5%, and 4.7%, retrospectively. The most common types of cancer for women were breast– 22.8%, colorectal-% 13.6, and gastric-% 6 and for men prostate– 26.4%, lung– 11.7%, and colorectal– 10.4% (Table-1). One-year overall survival rates for the most common cancer types were shown in Table– 2. In multivariate analysis, male gender was a negative prognostic factor on OS (P<0.001) (Figure 1).

Conclusion: In this study, we determined the distributions and prognosis of cancer types for patients aged 85 years and older in Turkey. The distributions of cancer types were similar to the general Turkish population. One-year overall survival rates were worse than the results of the United States [1]. This situation may be a result of shorter life expectancy in our country.

Keywords: oldest old, cancer statistics, prognostic factor, gender

References:
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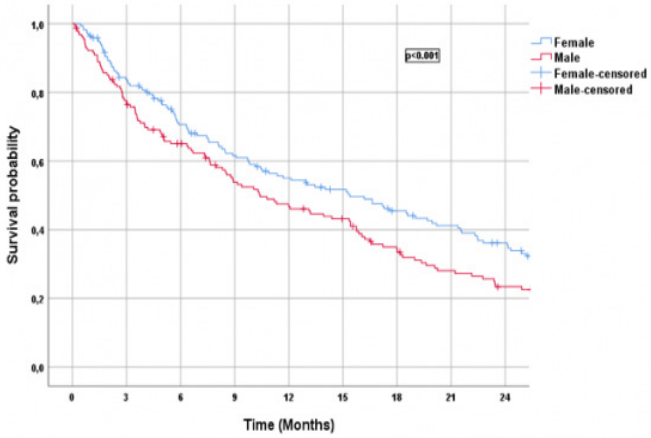

Figure 1. Kaplan-Meier survival curve stratified by gender.

Table 1. The most common cancer types by gender

Females, Number: 184		
Cancer types	N	%
Breast	42	22.8
Colorectal	25	13.6
Gastric	11	6
Pancreas	10	5.4
Lung	9	4.9
Males, Number: 163		
Cancer types	N	%
Prostate	43	26.4
Lung	19	11.7
Colorectal	17	10.4
Gastric	12	7.4
Melanoma	9	5.5

Table 2. The rates of overall survival for the most common cancer types

Cancer types	*1-year OS-%*
Breast	80
Prostate	59
Colorectal	59
Lung	35
Gastric	27.5
Bladder	53

HEMATOLOGIC AND ONCOLOGIC DISORDERS

SS – 050

Publication Hall: *Salon B*
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Publication End Date: *2020–10–17 18:06:00*

EVALUATION OF SURVIVAL OF GERIATRIC ONCOLOGY PATIENTS. DOES SURVIVAL DECREASE AS WE GET OLDER?

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Introduction: Among the fastest-growing segment of the population is the geriatric population. According to the International Aging Reports, the older population, which comprised 8.5% of the total population in 2015, will increase to 12% in 2030 and to 16.7% in 2050. Approximately 54 percent of new cases and 70 percent of mortality from cancer occur in patients ≥65 years of age. In a study from the United States Surveillance, Epidemiology, and End Results (SEER) database, five-year survival rates declined progressively from 84 percent in those between 65 and 69 years to 60 percent in those 85 and older. The absolute number of older patients with cancer is increasing as the population ages. We aimed in this study to show the frequency of cancer types and survival times in elderly patients.

Methods: This study was conducted retrospectively in an education and research hospital in Konya. Patients who were 65 years and older, admitted to oncology clinics between 2009–2020 were included to study. 1195 patients' records were evaluated for cancer sites, age, gender, age at the first time of admission to the outpatient clinic, follow-up time, and the last situation. Age of the participants were divided into three groups as group 1 (65–74 years) (n=877, 73.4%), group 2 (75–84 years) (n=298, 24.9%) and group 3 (85 years and over) (n=20, 1.7%). Overall survival (OS) was calculated using the Kaplan-Meier method and data were compared using the Log-rank test.

Results: The median age was 70 years (min-max: 65–92) and 44.4 percent was female. Most common cancers were respectively lung, breast, colorectum, prostate, and stomach in both sexes; lung, colorectum, prostate, stomach, pancreas in males; breast, colorectum, stomach, lung, ovary in females; lung, breast, colorectum, stomach, prostate in patients before age 75; colorectum, breast, lung, prostate, stomach in patients at age 75–84; prostate, breast, colorectum, lung, pancreas, ovary in patients at age 85 and older. It was found that overall survival decreased with increasing age in lung, breast and colorectal cancers. ($p<0.001$; $p=0.011$; $p=0.049$ respectively)

Conclusion: The findings of this study have demonstrated that survival in the top 3 most common cancers decreased with increasing age.

Keywords: geriatric oncology, cancer sites, overall survival

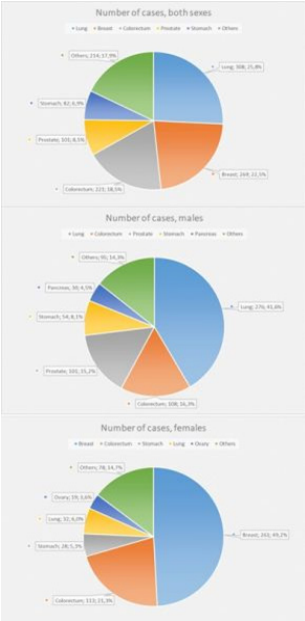

Figure 1. Distribution of 10-year prevalent cancer cases by gender.

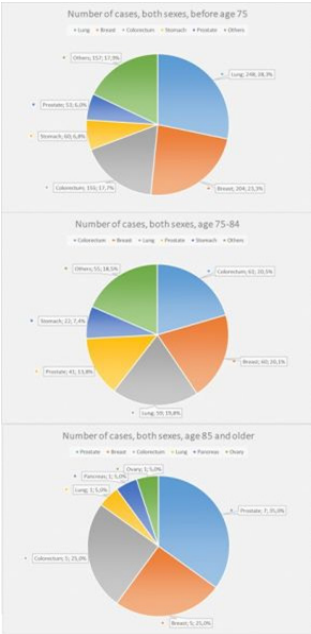

Figure 2. Distribution of 10-year prevalant cancer cases by age.

Table 1. Survival analysis of most common cancers in elderly patients.

	Age 65-74	Age 75-84	Age>85	*p* value
Stomach	19,2(9,8-28,6)	22,1(11,2-33,9)		0,604
Colorectum	59,8(43,3-76,3)	31(18,4-43,6)	20,9(2,4-39,4)	0,011
Pancreas	12,4(7,5-17,3)	13,6(7,6-19,6)	12,8	0,764
Trachea, bronchus and lung	14,7(12,6-16,8)	10,8(8,4-13,2)	4,1	<0,001
Breast	91,5(3,8-84,1)	74,9(6,2-62,8)	36,4(5-26,6)	0,049
Ovary	36,8(29,7-43,9)	23,1(0-51,1)	10,7	0,144
Prostate	35,7(13,7-57,7)	34,4(25,3-43,5)	22,4(13,7-31,1)	0,462

Survival times are given as median(minimum-maximum).

INFECTION DISEASES

SS – 051

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Publication Start Date: *2020–10–17 18:06:00*
Publication End Date: *2020–10–17 18:12:00*

ANTIMICROBIAL RESISTANCE RESULTS IN URINE SAMPLES OF ELDERLY

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Introduction: Fundamental alterations in quantitative and qualitative immune responses in elderly increase the frequency of infections. By reason of immune senescence, elderly can have severe infection that does not manifest with the typical signs or symptoms characterizing. Urinary tract infection (UTI) is the most common infectious disease in elderly. However, the diagnostic challenge, in addition to the high prevalence of asymptomatic bacteriuria in this population, often leads to overdiagnosis, unnecessary treatment, and increasing antimicrobial resistance.

Method: In this study, the datas of patients over 65 years of age who had positive result in urine culture between 1 January 2016 and 1 February 2020 were analyzed retrospectively. The positive ürine results were obtained and analyzed from laboratory records.

Results: We evaluated in 10.492 positive urine culture results from over 65, 4.758 of them isolated *Escherichia coli*, ceftriaxone resistance was 42.4%, ciprofloxacin resistance was 47.1%, trimethoprim sulfamethoxazole (TMP-SMX) resistance was 48.6%, nitrofurantoin resitance was 1.5%, and in there detected no fosfomycin resistance. In 1844 isolated *Klebsiella species* from urine samples, ceftriaxone resistance was 47.6%, ciprofloxacin resistance was 41.3%, TMP-SMX resistance was 48.9%. In 406 isolated *Pseudomonas species* from urine samples, cefepime resistance was 14.2%, ciprofloxacin resistance was 24.1%, amikacin resistance was 8.3%. In 1222 isolated *Enterococcus species* from urine samples, ampicillin resistance was 45.1%, vankomicin resistance was 3.2%.

Conclusion: Antibiotic management is another challenge in older patients. Antibiotic interactions are also a consideration in antibiotic selection. The latest report of the OECD Health Policy Studies stated that in 2015 the highest rates of antimicrobial resistance were from Turkey (38.8%). Based on the results of our study, we clearly see that oral treatment options decrease in elderly patients.

Keywords: antimicrobial resistance, urinary tract infection

INFECTION DISEASES

SS – 052

Publication Hall: *Salon B*
Publication Start Date: *2020–10–17 18:12:00*
Publication End Date: *2020–10–17 18:18:00*

EVALUATION OF THE HEALTHCARE ASCOCIATED INFECTIONS IN ELDERLY IN LAST YEAR

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Introduction and purpose: Patients 65 years and older represent approximatelly 40% of hospitalized adults. Underlying health conditions, poor nutritional status, the greater prevalence of chronic disease and greater severity of illness contribute to increased rates of healthcare ascociated infections (HAI) in older patients.

Method: HAIs diagnoses set by the infection control committee nurses in accordance with the national hospital infections surveillance guidelines. HAI are recorded in the national surveillance network. We were taken our HAI datas from 2019 from this surveillance network.

Results: In 2019, 270 HAIs were detected in our hospital. One-hundred-fifteen of them (42.5%) were over 65 years old, and 63 (54.7%) of them female. Eighty (69.5%) of them were between 65–79 years, 35 (30.5%) of them were over 80 years. The distribution of infections were 44 (38.2%) urinary tract, 31 (26.9%) respiratory tract, 23 (20%) bloodstream, 11 (9.5%) surgical site, 4 (3.4%) phlebitis, 3 (2.6%) skin-soft tissue. The distribution of microorganisms were 32 (27.8%) *Klebsiella spp*., 21 (18.2%) *Escherichia coli*, 14 (12.1%) *Pseudomonas spp.*, 9 (7.8%) *Acinetobacter baummannii*, 8 (6.9%) *Enterococcus spp*, 7 (6%) *Coagulase negative staphylococci*, 4 (3.4%) other. There was no microorganism in 20 (17.3%) of these infections. Secondary bacteremia developed as a result of these infections in 6 (5.2%) patients.

Discussion: This study showed nearly half of HAIs occured in over 65 years old. When the HAI risk is evaluated, the age of the patient cannot be changed, however, compliance with infection control precautions can be achieved increased. It must also keep in mind that long-term hospitalization is a risk factor for HAIs.

Keywords: healthcare, infections

INFECTION DISEASES

SS – 053

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Publication End Date: *2020–10–17 18:24:00*

PROGNOSTIC EFFECT OF PNEUMOCOCCAL VACCINE IN PATIENTS WITH PNEUMONIA IN THE GERIATRIC CLINIC

Veysel Suzan[1], Hakan Yavuzer[1], Osman Faruk Bayramlar[2], Tuğçe Emiroğlu[1], Pınar Arman[1], Rabia Bağ Soytaş[1], Damla Ünal[1], Serkan Sürme[3], Emir Çelik[4], Alper Döventaş[1], Ulev Deniz Erdinçler[1]

[1]*Division of Geriatric Medicine, Department of Internal Medicine, Cerrahpaşa Medical Faculty, İstanbul University - Cerrahpaşa, İstanbul, Turkey*
[2]*Department of Public Health, İstanbul Medical Faculty, İstanbul University, İstanbul, Turkey*
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[4]*Division of Oncology, Department of Internal Medicine, Cerrahpaşa Medical Faculty, İstanbul University, İstanbul, Turkey*

Background: Ninety percent of deaths due to pneumonia are seen in the geriatric population. Therefore, the aim of our study is to analyze the patients followed with the diagnosis of pneumonia in our geriatric clinic and to discuss the effect of vaccination on prognosis by questioning the status of the vaccination before infection.

Materials and Methods: Patients who were diagnosed with pneumonia in the geriatric clinic between January 2017 and December 2017 were included in the study. Demographic data, symptoms, physical examination findings, laboratory tests and radiological examinations of the patients were recorded. Pre-infection vaccination for pneumonia and mortality rates at the 6th and 12th months were evaluated. Modified Charlson comorbidity score, CURB-65 score and Pneumonia Severity Index (PSI) values were calculated.

Results: In a one-year period, 36 of 186 patients (19%) were hospitalized for pneumonia or pneumonia was detected during hospitalization. These 36 patients had 47 episodes of pneumonia. In our

study, the presence of dyspnea and mental disorder were predicted for poor prognosis (p=0.008; p<0.001). CURB-65 and PSI scores were significantly higher in patients with poor prognosis (p=0.030; p=0.013). Seventeen (41%) of the patients were vaccinated for pneumonia, while 24 (59%) were not. Ninety-four percent of the vaccinated and 50% of the non-vaccinated patients had good prognosis. Vaccinated patients had a statistically significantly better prognosis than non-vaccinated (p=0.003). All the patients who died (n=7) did not have the vaccine.

Conclusion: As dyspnea and mental disorder, high CURB-65 and PSI values were associated with poor prognosis, these should be considered in pneumonia seen in geriatric population. Most importantly, this study demonstrated the necessity of vaccination and its positive effect on prognosis in the geriatric population, whose ratio has increased.

Keywords: elderly, pneumonia, vaccine

MALNUTRITION

SS – 054

Publication Hall: *Salon B*
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Publication End Date: *2020–10–17 20:06:00*

EVALUATION OF HANDGRIP STRENGHT ACCORDING TO BMI IN ELDERLY INDIVIDUALS

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Trabzon Kanuni Research and Training Hospital

Background: Increasing age and excessive amount of adipose tissue could leads to decrease in muscle mass and muscle strength, termed as sarcopenic obesity. Assessment of handgrip strength and body mass index (BMI) are two easy tests, which can provide information about total body strength in relation to BMI.

Aims and Objectives: The aim of this study was to estimate the handgrip strength in elderly individuals according to BMI and show sarcopenia rates in obese elderly patients.

Materials and Methods: The present cross-sectional study was conducted on 332 elderly, who were divided further into six subgroups each according to their BMI, i. e., Group A (BMI <20 kg/m^2), Group B (BMI 20–25 kg/m^2), and Group C (BMI >25–30 kg/m^2), Group D (BMI >30–35 kg/m^2), Group E (BMI >35–40 kg/m^2), Group F (BMI >40 kg/m^2). The handgrip strength for both dominant and non-dominant hands was measured using simple Jamar handgrip dynamometer. EWGSOP2 criterion were used for handgrip strenght and SMI cut of points (1, 2). Three anthropometric variables, i. e., height, weight, and BMI were recorded. The data were analyzed statistically.

Results: The median age was 74 (64–93 years) and 30.7% were male and 69.3% were female participants. Grip strength were significantly different between BMI groups and the highest level of handgript strength was found in Group D both for males and females. However, correlation studies showed no significant inverse relationship existed between handgrip strength and BMI. 77.8% of the patients in Group A, 64.5% of the patients in group B, 44.8% of the patients in group C, 32.9% of the patients in Group D, 47.4% of the patients in Group E and 57.1% of the patients in Group Fhad low grip strenght. None of the patients in obese group had low SMI levels.

Conclusion: From our study, we can conclude that BMI 30–35 kg/m2 elderly individuals had low sarcopenia risk and being morbid obese (BMI >40) could led to a decrease in handgrip strength and increase sarcopenic obesity risk. This information can be helpful for future studies.

Keywords: obesity, sarcopenia, hangrip strenght, BMI

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			bmikategori																	
			<20			20-25			25-30			30-35			35-40			>40		
			Median	Minimum	Maximum	Median	Minimum	Maximum	Median	Minimum	Maximum	Median	Minimum	Maximum	Median	Minimum	Maximum	Median	Minimum	Maximum
yaş	cinsiyet	kadın	73	69	87	78	65	93	74	64	90	73	65	91	70	65	85	74	66	89
		erkek	86	67	88	76	68	90	76	65	87	74	65	86	70	65	75	.	.	.
handgrip	cinsiyet	kadın	15.0	8.0	18.1	15.2	5.9	23.2	16.6	5.6	35.0	17.5	5.1	32.6	18.0	11.0	24.7	13.4	6.8	25.0
		erkek	19.9	10.4	25.5	23.6	6.8	35.7	27.4	9.0	46.0	29.7	15.9	43.2	22.9	16.9	26.3	.	.	.
smi	cinsiyet	kadın	7.36	4.87	7.92	9.09	5.55	11.60	8.77	7.20	12.11	9.55	7.50	11.15	10.30	6.50	12.17	11.60	8.21	14.21
		erkek	7.03	3.45	7.75	9.34	7.92	13.80	10.22	8.10	14.04	11.21	9.60	13.53	12.96	12.10	16.75	.	.	.
yürümehızsınıf	cinsiyet	kadın	.80	.60	.92	1.01	.37	2.11	1.13	.30	2.78	1.24	.48	2.72	1.01	.24	1.95	1.09	.38	3.13
		erkek	1.05	.63	1.56	1.06	.47	2.00	1.05	.34	3.00	1.12	.76	1.60	.85	.67	1.29	.	.	.

Figure 1. Results of hangrip strenght according to BMI.

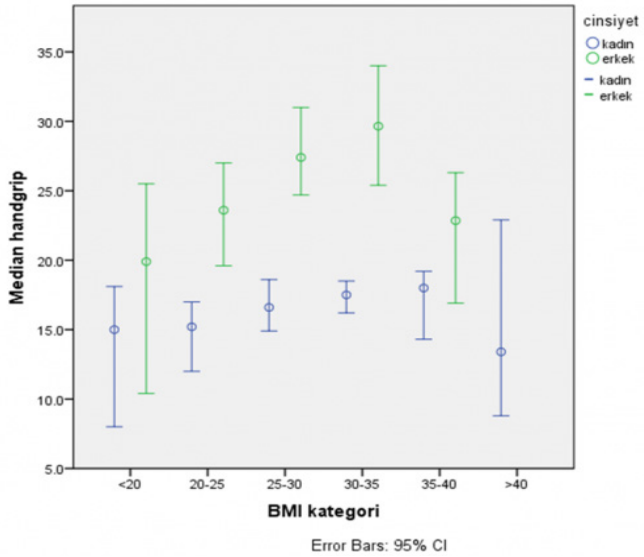

Figure 2. Graph of median hangrip strenght.

MALNUTRITION

SS – 055

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Publication Start Date: *2020–10–17 20:06:00*
Publication End Date: *2020–10–17 20:12:00*

EVALUATION OF ADHERENCE TO MEDITERRANEAN DIET AND ITS EFFECT ON CLINICAL OUTCOMES IN HOSPITALIZED OLDER ADULTS

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Introduction: Healthy diet is one of the major indicators of being healthy and having long life. It has been shown for a long time by nu-

merous studies that Mediterranean diet is one of the most suggested diets for being health. The studies investigating the effects of Mediterranean diet have shown that this diet has good effects on cardiovascular diseases, malignancies, morbidity, mortality etc. The knowledge about adherence to this diet in older adult patients in our country is limited. We aimed to investigate the adherence to Mediterranean diet of older adults staying in an internal medicine ward in a tertiary hospital and to show its effect on hospital outcomes.

Methods: This prospective, observational study was planned in an internal medicine ward. Preliminary data of an ongoing research was presented in this study. Totally, 159 patients were consecutively included in the study. Demographic properties, co-morbidities, the reason for admission, drug numbers, hospital outcomes, length of hospital stay (LOS) of the patients were recorded. All patients were evaluated by Elderly Dietary Index (EDI) to learn the adherence to Mediterranean diet. The patients divided into three groups according to EDI score as 10–28 (unhealthy diet), 29–31 (moderate healthy diet) and 32–40 (healthy diet). Mini nutritional assessment-short form (MNA-SF) and FRAIL index were applied to all patients to evaluate nutritional and frailty status.

Results: Median age of the patients was 72 years (IQR 12) and 62.3% were female. Most of the patients had low adherence to Mediterranean diet (unhealthy diet group, 91.8%). Hospital mortality of the patients was 3.8 percent during the study period. The patients with unhealthy diet group had more likely to be frail at the time of admission to the hospital (61.6 vs. 30.8 percent, p=0.030) and higher hospital mortality rate although not reaching statistically significance compared to moderate healthy or healthy diet groups (4.1 vs. 0.0 percent, p=1.000). Median MNA-SF score was found to be significantly lower in unhealthy diet group [11 (IQR 3)] compared to the other ones [14 (IQR 4)] (p=0.017). In patient group (n=14) that hospitalized for infectious reasons such as pneumonia or urinary tract infections, there was a negative and borderline significant correlation between EDI score and LOS (rho=-0.506 p=0.065).

Conclusion: It was shown in this study that hospitalized older adults staying in an internal medicine ward in our country had a low adherence to the Mediterranean diet and unhealthy diet group might be associated with poor clinical outcomes such as malnutrition, frailty and increased LOS when staying in a hospital.

Keywords: mediterranean diet, malnutrition, elderly diet index, frailty

MALNUTRITION

SS – 056

Publication Hall: *Salon B*
Publication Start Date: *2020–10–17 20:12:00*
Publication End Date: *2020–10–17 20:18:00*

EVALUATION OF NUTRITION STATUS IN ELDERLY STROKE PATIENTS WITH THE 24-HOUR RECALL METHOD

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Aim: Evaluation of food intake by 24-hour recall method in elderly stroke patients

Methods: This study which is a cross-sectional observational clinical study included inpatient rehabilitation in our hospital between December 2019 and March 2020, over 65 years of age and orally fed cooperative patients. Demographic data, body mass index, CIRS (Cumulative Illness Rating Scale) score, calf diameter were recorded. On the first day of their hospitalization, all patients filled out a 24-hour food consumption record and a form asking about the frequency of food consumption. Daily average energy and nutrient values obtained from consumed foods were analyzed using the computer-aided nutrition program, "Nutrition Information System (BeBIS 7.2)". SPSS 22.0 program was used for analysis. In the descriptive statistics of the data, mean, standard deviation, median lowest, highest, frequency and ratio values were used.

Results: The mean age of 50 patients included in the study was 70.5±3.9 years. The median time after stroke was 15 (6–135) months. The mean calf diameter of the patients was 36.7±5.2 cm. 60% of the patients were women (n=30). The average body mass index of the patients was 29.8±5.9 kg/m^2. 44% of the patients had hypertension, 17% had diabetes mellitus, 15% had coronary artery disease, 14% had COPD/asthma. The median value for CIRS score was 5 (2–9). The median protein intake value of the patients in the last 24 hours was 52.8 (32.7–88.8) g, 0.63 (0.35–1.31) g/kg. It was found that 11% of the patients received 0.8 g/kg, 6% 1 g/kg, and 4% 1.2 g/kg protein in the last 24 hours. The median value of calories taken by the patients in the last 24 hours was 1029 (760–1796) kcal, 12.74 (10.93–36.96) kcal/kg; The median amount of calcium was 452.5 (313–1265) mg.

Conclusion: Results of our study demostrated that the intake of energy, protein and calcium was insufficient in elderly patients with stroke. All of these patients should be evaluated in terms of nutritional status during hospitalization.

Keywords: stroke, elderly, rehabilitation, protein, calorie

MALNUTRITION

SS – 057

Publication Hall: *Salon B*
Publication Start Date: *2020–10–17 20:18:00*
Publication End Date: *2020–10–17 20:24:00*

IS MALNUTRITION MOST ASSOCIATED WITH DYNAMIC OR STATIC PHYSICAL PERFORMANCE?

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Background: Malnutrition is a state resulting from lack of uptake or intake of nutrition that leads to altered body composition decreased fat free mass and body cell mass. Its prevalence varies according to health conditions and the level of care dependency. Overall prevalence over 65 years is 9% to 15% in outpatient clinics. Malnutrition can be associated with decreased physical and mental function and impairment of body cell components. Decrease in physical capacity causes shortened mobility and difficulties in daily activities like shopping, cooking and eating. Malnutrition and the decline of functional status are two important factors contributing to the loss of independency. The aim of this work was to detect a detailed description of the association between nutritional and functional status.

Method/Design: This retrospective study included 406 patients, aged 60 and older, who were referred to Istanbul University's geriatric outpatient clinic. The nutrition status was determined using the short form of Mini Nutritional Assessment (MNA, cut off ≤11) including six questions specific to diet and anthropometric measurements. The score for short form can be as high as 14 points. A score of 12 to 14 signifies normal nutritional status, 11 or lower indicates possible malnutrition. The both dynamic and static functional status were evaluated. Measures of dynamic physical performance included timed up and go test (TUG), gait speed test (4-m walk test), and chair stand test (CST). Static performance was determined by balance tests (side-by-side, semi-tandem, and full tandem stand) and hand grip strength (HGS). Linear regression analysis was used to study the association between malnutrition with physical performance tests.

Results: The study sample comprised 406 participants with mean aged 74.8±6.7, % 69.7 were female and% 30.3 were male. The presence of malnutrition determined by using the Short Form Mini Nutritional Assessment (MNA) (cut off ≤11) was found in% 28.8 of the patients (n: 117). Malnutrition was most strongly associated with balance test (semi tandem) (p<0.46) and HGS (p<0.018).

Conclusion: Malnutrition is an important problem which could result diminished physical and mental function in older people. In our study malnutrition according to MNA was mostly associated with static functionality measures. MNA might be useful screening tool as a surrogate marker of functional status, especially if specific functionality testing cannot be applied.

Keywords: physical performance, malnutrition, MNA

MALNUTRITION

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NEW NUTRITIONAL INDEX FOR SARCOPENIA AND SARCOPENIC OBESITY

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Introduction: Deficiency and imbalance of protein, energy and other nutrients called as malnutrition (1). Malnutrition and sarcopenia are geriatric syndromes that can be seen together (2). Several nutrition indices are being used for diagnosing malnutrition. Geriatric nutritional risk index (GNRI) is an easy-applied and feasible tool to assess nutritional risk (3). In this study, we aimed to evaluate efficiency of GNRI for predicting sarcopenia and sarcopenic obesity. We also planned to develop a new index that was able to predict good nutritional status and muscle status better than GNRI.

Material and Methods: Patients who admitted to polyclinic of geriatrics between January 2018 and January 2019 were evaluated from their file records, retrospectively. Patients who had a creatinine clearance less than 60 ml/min/1.73 m2 was excluded from the study. EWGSOP 2 (European Working Group on Sarcopenia in Older People) criteria were used to diagnose sarcopenia (4). Malnutrition was evaluated by using GNRI [(1.489 × serum albumin (g/L)) + (41.7 × (current body weight/ideal weight)] (3). We proposed a new index as "creatinine x1000/GNRI". We interpreted the relationship between this index and sarcopenia by analyzing the correlations with handgrip strength, skeletal muscle mass (SMM), skeletal muscle mass index (SMMI) and gait speed. We also analyzed correlations between the index, hip circumference, waist circumference, body fat mass, percentage of body fat and BMI in order to evaluate relationship with sarcopenic obesity. Data analysis was done by using SPSS (Statistical Package for the Social Sciences) version 22. Chi square test, correlation analysis and linear regression model were used to evaluate relationship between parameters.

Results: The study population was composed of 97 women and 80 men, of mean age 70.3 +/– 6.7 years. GNRI was found to be negatively correlated with SMMI but not correlated with handgrip strength and SMM. New index was found to be positively correlated with handgrip strength, SMM and SMMI. Results were summarized in table-1. Fat-mass, fat-ratio, hip circumference, waist circumference and BMI were found to be positively correlated with GNRI, negatively correlated with new index. Results were summarized in table-2. In linear regression analysis, GNRI was found to be independently related with fat-mass, fat percent and BMI (r^2=0.774; p=0.038, p=0.013, p<0.001). New index was revealed to be independently related with SMM and SMMI (r^2=0.447; p=0.01, p<0.001).

Discussion: Elderly patients who suffer from complications of sarcopenia and obesity can be defined as sarcopenic obese (5). We showed that GNRI which is based on body weight and albumin was correlated with obesity and diminished muscle mass. Contrarily, new index found to be inversely related with sarcopenia and obesity. These evidences made us though that new index was more efficient in predicting both good nutritional status and good muscle status.

Keywords: sarcopenia, obesity, GNRI, malnutrition

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Table 1. Relationship between nutritional indices and sarcopenia

	creatinine (mg/dL)	*GNRI*	*creatinine x 1000/GNRI (new index)*
handgrip strength (kg)	p<0.001 r=0.282**	p=0.110	p<0.001 r=0.298**
SMM (kg)	p<0.001 r=0.350**	p=0.06	p<0.001 r=0.304**
SMMI (kg/(kg/m^2))	p<0.001 r=0.483**	p<0.001 r=-0.579**	p<0.001 r=0.640**
gait speed (m/s)	p=0.972	p=0.065	p=0.427

Table 2. Relationship between nutritional indices and sarcopenic obesity

	fat-mass (kg)	*fat-ratio (%)*	*hip circumference (cm)*	*waist circumference (cm)*	*BMI (kg/m^2)*
creatinine (mg/dL)	p<0.001 r=-0.332**	p<0.001 r=-0.428**	p=0.165	p=0.365	p=0.001 r=-0.231*
GNRI	p<0.001 r=0.783**	p<0.001 r=0.662**	p<0.001 r=0.695**	p<0.001 r=0.618**	p<0.001 r=0.859**
creatinine x 1000/GNRI	p<0.001 r=-0.590**	p<0.00 r=-0.628**	p<0.00 r=-0.403**	p<0.00 r=-0.317**	p<0.00 r=-0.528**

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THE RELATIONSHIP BETWEEN NUTRITIONAL STATUS AND DEPRESSION IN PATIENTS ADMITTED TO GERIATRIC CLINIC

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Objective: Malnutrition and depression are two common geriatric syndromes in geriatric clinics. Malnutrition screening and evaluation of patients in terms of depression are important components of geriatric examination. This study was conducted to evaluate the nutritional status of individuals aged 65 and over who applied to the geriatric outpatient clinic and to determine the relationship between nutritional status and depression.

Method: Between April 2019 and July 2019, 280 patients aged 65 years or older who applied to the geriatric outpatient clinic for any reason and agreed to participate in the study were included in the study. Mini Nutritional Assessment test was used to evaluate the nutritional status of the patients and Geriatric Depression Scale was used to evaluate their mood. The patients who received ≥12 points from the first part of the Mini Nutritional Assessment test were deemed to have no malnutrition and the test was not continued. The patients who received ≤11 points from the first part of the Mini Nutritional Assessment test were administered the entire test. Mini Nutritional Assessment test results were grouped as 23.5–30 points (normal nutritional status), 17–23 points (malnutrition risk), <17 points (malnutrition). Geriatric Depression Scale results were grouped as 0–10 points (no depression), 11–13 points (possible depression), ≥14 points (depression).

Results: The average age of 280 patients included in the study was 74±6 (65–90), 126 of them were male (45%) and 154 were female (55%). Since 168 patients (168/280, 60%) received ≥12 points from the first part of the Mini Nutritional Assessment test, the second part of the test was not performed in these patients. The Mini Nutritional Assessment test was 23.5–30 points in 21 patients (7.5%), 17–23 points in 49 patients (17.5%), and below 17 points in 42 patients (15%). The Geriatric Depression Scale was between 0–10 points in 156 patients (156/280, 55.7%), 11–13 points in 52 patients (18.6%), and 14 points and above in 72 patients (25.7%). While 26 of 72 patients diagnosed with depression had malnutrition, 16 of 208 patients without depression had malnutrition ($p=0.014$). There was a significant negative correlation between Mini Nutritional Assessment and Geriatric Depression Scale results ($p<0.001$, $r=-0.464$).

Conclusion: Depression and malnutrition rates are very high in geriatric patients. Depression and malnutrition should be considered as conditions that can lead to each other in geriatric patients and should be handled in many ways. Complaints such as anorexia, weight loss and changes in nutritional habits in the elderly may be indicative of the underlying depression. However, malnutrition itself can increase depression by increasing morbidity and addiction.

Keywords: geriatric patient, malnutrition, depression

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MALNUTRITION

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VALIDATION OF GLIM CRITERIA IN HOSPITALIZED INTERNAL MEDICINE PATIENTS, BY DIFFERENT ASPECTS OF MUSCLE ASSESSMENT

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Introduction: Malnutrition is an under-recognized problem in hospitalized patients may be causen by compromised intake or assimilation of nutrients. But there is a growing appreciation that malnutrition may also be caused by disease associated inflammatory or other mechanisms. Although malnutrition is a global concern associated with morbidity, mortality and costs there had been a lack of concensus on diagnostic criteria for application in clinic settings until Global Leadership Initiative on Malnutrition (GLIM) criteria for the diagnosis of malnutrition were published. In case of nutritional risk, these criteria recommend performing a nutritional assessment evaluating phenotypic (unintentional weight loss, low BMI, reduced muscle mass) and etiologic criteria (reduced intake or assimilation, inflammatory response). To diagnose malnutrition, at least one phenotypic criterion and one etiologic criterion should be present. The aim of the study is to determine the prevalence of malnutrition in hospitalized patients by GLIM criteria using different muscle mass measuring methods.

Methods: This was a prospective cohort study including a sample of 118 patients, who was admitted to the internal medicine wards with any reason. All patients were evaluated within 48 hours after admission. Age, sex, comorbidities, drugs, reasons of admission, baseline laboratory values, dates of admission and discharge were recorded for all patients. Height, weight, waist circumference, hip circumference, middle upper arm circumference, calf circumference, handgrip strength (HG), were measured. Bioelectrical impedance analysis (BIA) was performed for eligible patients. Ultrasonography was used to measure gastrocnemius muscle thickness (GK), gastrocnemius muscle fascicle length (GKF), gastrocnemius muscle pennation angle (GKP), rectus femoris muscle thickness (RF), rectus femoris muscle cross sectional area (RFC), rectus abdominis muscle thickness (RA), external abdominal oblique muscle thickness (EO), internal abdominal oblique muscle thickness (IO), transversus abdominis muscle thickness (TA). Mini Nutritional Assessment – Short Form (MNA-SF) and Nutritional risk screening (NRS 2002) were calculated. Reduced muscle mass criteria in GLIM was eveluated by HG and skeletal muscle index (SMI) seperately. Cut-off points for SMI was accepted <9.2 kg/m2 for men and <7.4 kg/m^2 for women whereas cut-off points for handgrip strength were accepted 27 kg for males and 16 kg for females. Main results were given for patients with and without malnutrition assessed by SMI. Group 1 was defined for patients with malnutrition whereas group 2 was defined for patients without malnutrition.

Data Analysis: Quantitative variables following a Gaussian distribution were expressed as the mean ± standard deviation; quantitative variables not following a Gaussian distribution were expressed as the median (25th percentile–75th percentile). Qualitative variables were described by absolute and relative (%) frequencies. Comparison between qualitative variables was performed using a chi-square test, with Fisher correction when necessary. Differences between quantitative variables were analyzed using Student's t-test and, for variables not following a normal distribution, using non-parametrictests

(Mann–Whitney or Kruskall–Wallis). The accuracy of the ultrasound measurements of the muscles were evaluated by Receiver Operating Characteristics (ROC) analysis.

Results: The median (IQR) age of the participants was 63.5 (55.2–73.7) and 65.5 (57.7–74) for group 1 versus 2. There were 35 (53.8%) and, 30 (46.2%) female patients in group 1 and 2. We didn't observe statistical differences between groups in terms of age, sex, comorbidities, number of drug and follow up duration. In group 1; waist circumference, hip circumference, middle upper arm circumference, calf circumference, handgrip strength and SMI measurements were significantly lower than group 2 ($p<0.005$) (Table-1). Gastrocnemius muscle thickness, GKP, RF, RFC, IO and TO were significantly lower in group 1 than group 2 ($p<0.005$) (Table-2). When we used handgrip to evaluate muscle mass in GLIM criteria; GK, GKF, GKP, RF, RFC, RA and TA were lower in group 1 ($p<0.001$). Malnutrition ratios according to NRS-2002, MNA-SF, GLIM (HG) and GLIM (SMI) were% 61, % 54.2, % 64.4 and% 49.2. We analyzed the optimal cutoff points for ultrasnographic measurements. In general, we found out good specificity and low sensitivity (Table-3). We used GLIM-HG for this assessment.

Conclusion: GLIM criteria is a valid assessment for hospitalized patients to predict malnutrition. We may use HG to assess muscle mass instead of BIA also. Moreover, ultrasonographic assessment of skeletal muscles may be useful as a convenient approach for predicting malnutrition.

Keywords: assessment, diagnosis, malnutrition, GLIM, muscle mass

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Table 1. Demographic Data and BIA Parameters

GLIM-SMI	*Malnutrition (+) (n: 58)*	*Malnutrition (-) (n: 60)*	*p Value*
Age	63.5 (55.2–73.7)	65.5 (57.7–74)	0.339
Sex, female	35 (53.8%)	30 (46.2%)	0.259
Hospital duration, day	10.8 (8.1–17.7)	12.8 (7.8–19.9)	0.559
Comorbidites number	3 (1–4)	3 (1–4.25)	0.827
Drug number	6 (4–9.7)	6 (3–9)	0.451
Height, cm	158.9±10.9	163.7±9.4	0.011
Weight, kg	69 (56–75.1)	77.8 (69.2–90)	<0.001
Body mass index, kg/m^2	26.7±6	29.3±5.6	0.02
Midarm circumference, cm	26 (23–29)	29 (26–31.7)	<0.001
Waist, cm	89.9±18.7	98.5±15.9	0.008
Hip, cm	97.5 (91–104.2)	104 (99–110)	<0.001
Calf circumference, cm	32.6±4.6	36±3.6	<0.001
Fat free mass index	15.9±2.9	18.5±2.4	<0.001
Skeletal muscle index	8.9±1.6	10.6±1.9	<0.001
Phase angle	6.7 (5–9.8)	7.4 (6–11.6)	0.078
Sarc-f	4 (2–6.5)	2.5 (0–5)	0.016
Hand grip	15.6 (12.18)	20.9 (10.23)	0.007
NRS-2002	3 (2–4)	2 (1.75–3)	0.007
MNA-SF	8.4±2.69	12.7±1.8	<0.001

Table 2. Ultrasonographic Parameters

	Malnutrition (+)	*Malnutrition (-)*	*p Value*
Gastrocnemius muscle thickness, mm			
GLIM-SMI	12.8±2.8	15±2.9	<0.001
GLIM-Handgrip	13.3±3	15.2±2.7	0.001
Gastrocnemius fascicle length, mm			
GLIM-SMI	30.1±5.1	31.7±4.7	0.116
GLIM-Handgrip	30.1±4.8	32.4±4.7	0.023
Gastrocnemius pennation angle (°)			
GLIM-SMI	25.4±4.8	29.6±4.5	<0.001
GLIM-Handgrip	26.3±4.7	29.7±4.9	0.001
Rectus femoris muscle thickness, mm			
GLIM-SMI	14.3±3.8	16.3±3.5	0.007
GLIM-Handgrip	14.4±3.6	17±3.6	0.001
Rectus femoris cross sectional area, mm			
GLIM-SMI	5.42±2.1	6.6±1.9	0.004
GLIM-Handgrip	5.4±2	6.9±1.9	<0.001
Rectus abdominis, mm			
GLIM-SMI	6.7±2	7.6±2	0.025
GLIM-Handgrip	6.7±1.9	7.9±2	0.003
External abdominal oblique muscle thickness, mm			
GLIM-SMI	3.4 (2.7–4.3)	3.6 (3.3–4.4)	0.148
GLIM-Handgrip	3.4 (3–4.2)	3.6 (3.3–4.5)	0.275
Internal abdominal oblique muscle thickness, mm			
GLIM-SMI	5.2±1.7	5.8±1.6	0.08
GLIM-Handgrip	5.3±1.7	5.8±1.7	0.153
Transversus abdominis muscle thickness			
GLIM-SMI	3 (2.6–3.8)	3.4 (3–4.5)	0.003
GLIM-Handgrip	3.2 (2.7–4.1)	3.4 (3–4.2)	0.043

Table 3. Cut-off Points of the Parameters Predicting Malnutrition

	AUC	Sensitivity	Specificity	p Value	Cut-Off
Gastrocnemius muscle thickness, mm	0.692	50	89	<0.001	≤13
Gastrocnemius fascicle length, mm	0.692	58.73	67.57	0.019	≤30.6
Gastrocnemius pennation angle (°)	0.688	43.33	85.71	0.001	≤25
Rectus femoris muscle thickness, mm	0.712	75	62.6	0.001	≤16.1
Rectus femoris cross sectional area, mm	0.708	61.76	80.56	<0.001	≤5.7
Transversus abdominis muscle thickness	0.620	35.29	91.89	0.03	≤2.7

MALNUTRITION

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FEMALE FECAL INCONTINENCE AND ITS ASSOCIATION WITH MALNUTRITION

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Introduction: Fecal incontinence (FI) frequency increases with age and affects up to 20% of ambulatory community-dwelling geriatric people (1). There is a relationship between FI and poor nutritional status (2). In our study, it was aimed to investigate the associated factors of FI, relationship between fecal incontinence and malnutrition in the geriatric female population.

Material and Method: Female patients who were admitted to geriatric medicine outpatient clinic were included in the study. Demographic characteristics, diabetes mellitus (DM), dementia, depresion, stroke, diarrhea, constipation, stool culture, C-reactive protein (CRP) level, obesity, mini nutritional assessment (MNAsf) score, plasma albumin levels and FI existence were evaluated. Hypoalbuminemia was diagnosed if albumin level was lower than 3.5 g/dL. Age was categorized as 65–79 years and ≥80 years. High level CRP was determined according to the cut-off value of >0.8 mg/dL. Malnutrition was diagnosed if MNAsf score was lower than 8.

Results: In this retrospective study, 1491 female patients were included. Median age of patients was 71 (minimum: 65, maximum: 108). Number of patients with FI was 60 (4.0%). Median age of who had FI was 73 (minimum: 65, maximum: 95). According to univariate analysis; FI was more common ≥80 years old (p: 0.001), malnourished (p<0.001) and hypoalbuminemic (p<0.001) patients. Furthermore, FI frequency was increased by high CRP levels (p: 0.05), diarrhea (0.03) and dementia (p: 0.02). No relationship was found with DM (p: 0.56), stool culture (p: 0.57), obesity (p: 0.78), stroke (p: 0.18), depression (p: 0.92) and constipation (p: 0.82). In multivariate analysis; malnutrition (OR: 4.48, 95% CI: 1.97–9.74, p<0.001), hypoalbuminemia (OR: 6.19, 95% CI: 2.79–13.75, p<0.001), dementia (OR: 2.22, 95% CI: 1.12–4.43, p: 0.02) were independently related to FI.

Conclusion: Fecal incontinence in females in the geriatric population is associated with malnutrition and its indirect indicator albumin. In addition, the frequency of fecal incontinence increases as expected in patients with dementia and advanced age. In older patients with dementia and/or malnutrition, clinicians should be careful for FI which is an important geriatric syndrome that should not be overlooked.

Keywords: fecal incontinence, malnutrition, female

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MALNUTRITION

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THE EFFECT OF GLIM CRITERIA ON NEGATIVE OUTCOMES AND COMPARISON WITH OTHER TESTS IN HOSPITALIZED ELDERLY PATIENTS

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Background and Aim: Malnutrition is an important geriatric syndrome that is common in hospitalized elderly patients and leads to negative clinical outcomes. In this study, our aim is to investigate the frequency of malnutrition using the GLIM criteria and other frequently used nutritional risk assessment tests (NRS-2002 and MNA-SF), and to compare the GLIM criteria with other tests in terms of predicting negative clinical outcomes (infection, long hospital stay and mortality) in hospitalized elderly patients.

Method: A cross-sectional and prospective study. Between July 2019 and December 2019, patients aged 60 and over who were hospitalized at the Health Sciences University, Bakırköy Dr. Sadi Konuk Training and Research Hospital, a tertiary center, Internal Medicine Clinic (General Internal Medicine) were included. The demographic characteristics of the patients, the number of comorbid diseases and the number of drugs used were recorded. In the evaluation of sarcopenia, calf and middle arm circumference of patients were measured; chair stand test (5 times, 20 sec) and walking speed (4 meters, 0.8 m/sec) were examined in appropriate patients. Nutritional status was evaluated with NRS-2002 (≥3 score), MNA-SF (≤11 score) and GLIM criteria (presence of 1 phenotypic and 1 etiological criteria). Nutritional tests (GLIM criteria, NRS-2002 and MNA-SF) were compared with the ROC (Receiver Operating Characteristic) curve analysis to predict negative clinical outcomes such as long hospitalization time (≥15 days), infection and mortality.

Results: Of the 200 patients included in the study, 50.5% were female, and the mean age was 74.7±9.4. The average number of drugs was 5.2±3.0 and the number of chronic diseases was 3.1±1.4. Malnutrition risks were found in NRS-2002 63.5%, MNA-SF 85.5% and GLIM criteria 73.5%. During the hospital stay, the mortality rate was 2.5%, the presence of infection was 55%, and the long hospital stay was 18.5%.

According to the ROC analysis, the best predictive test for the presence of infection was the MNA-SF (Area under curve (AUC): 0.634, p=0.001, sensitivity: 86%, specificity 76%) test, while the best predictor for long hospitalization the test was found as NRS-2002 (AUC: 0.603, p=0.05, sensitivity: 61%, specificity 47%) test. All three tests on mortality were not statistically significant (p>0.05).

Conclusion: The highest sensitivity and specificity test for infection in the hospitalized elderly patients is MNA-SF test, while it is the NRS-2002 test for the long hospital stay. In addition, GLIM criteria are not high in sensitivity and specificity in predicting hospital negative clinical outcomes compared to other tests.

Keywords: GLIM criteria, MNA-SF, NRS-2002, negative clinical outcomes, hospitalized elderly patients

MALNUTRITION

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DIETARY QUALITY ASSESSMENT IN GERIATRIC OUTPATIENTS

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Background: Eating a variety of foods from all food groups can help provide the nutrients a person needs as they age, by improving dietary quality. Therefore, dietary pattern assessments have emerged as an alternative approach for studying the potential impact of diet as a whole in relation to disease prevention. There are a limited number of studies investigating dietary quality and factors that may affect older adults. The main purpose of this study is to investigate the quality of various dietary intakes and the factors that may affect the diet in geriatric outpatients.

Materials and Methods: This study was carried out in 195 volunteer patients aged 65 years or older, consisted of 67 male and 128 female who applied to the geriatric outpatient clinic between September 2018 and March 2019. The demographic characteristics of the patients included in the study were recorded. Anthropometric indices were measured using standard methods. Mini Nutritional Assessment – Long Form was used to evaluate nutritional status. The frequency of food consumed by the patients in the last month was evaluated using a 65-item, semi-quantitative, food frequency questionnaire (FFQ). The frequency of dietary intake was assessed using the Elderly Diet Index (EDI) score. It consists of ten dietary groups (i. e., meat, fish, fruits, vegetables, grains, legumes, olive oil, alcohol, bread, and dairy products). Scores from 1 to 4 are assigned to all components of the index. The EDI total score ranges between 10 and 40, with higher values indicating healthier adherence to dietary recommendations for older adults. In addition, EDI components were evaluated for optimal/non-optimal status.

Results: Of the patients 34.4% were male and 65.6% were female. The average age of males was 78.7±6.9 years, and females were 75.1±6.9 years. According to the Body Mass Index, 10.3% of patients are underweight and 59% are overweight/obese. The overall mean EDI score was 27.0±2.3. The EDI score of 72.8% of the patients was low, 24.6% of them were moderated and 2.6% of them were high. The meat, vegetable, fruit, olive oil, alcohol and bread consumption levels of the majority of the patients were found optimal, and the consumption levels of fish, cereals, legumes and dairy products were non-optimal (Table 1). Patients with low EDI score were found to have lower education levels ($p<0.05$), less appetite ($p<0.001$), more frequent difficulty swallowing and chewing ($p=0.21$), higher risk of malnutrition ($p<0.05$) compared to patients with moderate to high EDI score (Table 2).

Conclusion: Low food intake or inadequate dietary variety by the elderly may lead to them being more vulnerable to malnutrition. Most older adults need to improve their diet quality. Strategies heading toward the improvement of diet quality must be a priority in policies to health promotion toward healthy and active aging.

Keywords: older adult, elderly dietary index, nutrition, dietary intake

Table 1. Demographic information and optimal/nonoptimal food consumption levels of patients

	Male (n=67)	*Female (n=128)*	*Total (n=195)*	*p*
Mean age (years), $\bar{X} \pm SD$	78.7±6.9	75.1±6.9	76.3±7.1	
Age classification, n (%)				<0.001
65–74	20 (29.9)	60 (46.9)	80 (41.0)	
75–84	32 (47.8)	57 (44.5)	89 (45.6)	
≥85	15 (22.4)	11 (8.6)	26 (13.3)	
Body-Mass Index (kg/m^2), n (%)				0.53
<22 (Underweight)	9 (13.4)	11 (8.6)	20 (10.3)	
22–27 (Normal)	21 (31.3)	39 (30.5)	60 (30.8)	
>27 (Overweight/obese)	37 (55.2)	78 (60.9)	115 (58.9)	
Meat, n (%)				0.98
Non-optimal	13 (19.4)	25 (19.5)	38 (19.5)	
Optimal	54 (80.6)	103 (80.5)	157 (80.5)	
Fish and Seafood, n (%)				0.08
Non-optimal	64 (95.5)	127 (99.2)	191 (97.9)	
Optimal	3 (4.5)	1 (0.8)	4 (2.1)	
Vegetable, n (%)				0.69
Non-optimal	1 (1.5)	3 (2.3)	4 (2.1)	
Optimal	66 (98.5)	125 (97.7)	191 (97.9)	
Cereals, n (%)				0.37
Non-optimal	64 (95.5)	118 (92.2)	182 (93.3)	
Optimal	3 (4.5)	10 (7.8)	13 (6.7)	
Fruits, n (%)				0.95
Non-optimal	2 (3.0)	4 (3.1)	6 (3.1)	
Optimal	65 (97.0)	124 (96.9)	189 (96.9)	
Legumes, n (%)				0.68
Non-optimal	33 (49.3)	67 (52.3)	100 (51.3)	
Optimal	34 (50.7)	61 (47.7)	95 (48.7)	
Olive Oil, n (%)				0.97
Non-optimal	26 (38.8)	50 (39.1)	76 (39.0)	
Optimal	41 (61.2)	78 (60.9)	119 (61.0)	
Alcohol, n (%)				
Non-optimal	-	-	-	
Optimal	67 (100)	128 (100)	195 (100)	
Dairy, n (%)				0.42
Non-optimal	62 (92.5)	122 (95.3)	184 (94.4)	
Optimal	5 (7.5)	6 (4.7)	11 (5.6)	
Bread, n (%)				0.56
Non-optimal	29 (43.3)	61 (47.7)	90 (46.2)	
Optimal	38 (56.7)	67 (52.3)	105 (53.8)	
Elderly Diet Index Score, n (%)				0.68
Low (10–28 points)	50 (74.6)	92 (71.9)	142 (72.8)	
Moderate/high (≥29 points)	17 (25.4)	36 (28.1)	53 (27.2)	

Table 2. Evaluation of education, appetite, chewing and nutritional status according to patients' diet quality

	Low EDI Score (n=142)	*Moderate to high EDI Score (n=53)*	*p*
State of education, n (%)			<0.05
Literate/illiterate	19 (13.4)	4 (7.5)	
Primary/secondary school	83 (58.5)	23 (43.4)	
High school and equivalent	40 (28.2)	26 (49.1)	
State of appetite, n (%)			<0.001
Good	46 (32.4)	30 (56.5)	
Poor	19 (13.4)	2 (3.8)	
Normal	77 (54.2)	21 (39.6)	
Difficulty in chewing-swallowing, n (%)			0.21
Yes	36 (25.4)	9 (17.0)	
No	106 (74.6)	44 (83.0)	
Nutritional status, n (%)			<0.05
Normal nutritional status	98 (69.0)	44 (83.0)	
At risk of malnutrition/malnutrition	44 (31.0)	9 (17.0)	

Teşekkür: Bu konfresansa/etkinliğe katılım ULEP-2020-2021/72 ile İstanbul Kültür Üniversitesi tarafından desteklenmiştir.

MALNUTRITION

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EVALUATION OF DIETARY PROTEIN INTAKE AND ANTHROPOMETRIC MEASUREMENTS IN OLDER ADULTS

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Background: Providing adequate dietary protein intake can positively affect anthropometric measurements by maintaining muscle mass in older adults. According to the literature, the Recommended Dietary Allowance for protein intake for a healthy older adult is 1.0–1.2 g/kg/day. Anthropometric measurements, malnutrition, overweight and obesity, muscle mass loss, fat mass gain, and loss are an important part of nutritional assessment in geriatrics, as it allows the distribution of adipose tissue. In this study, it was aimed to evaluate the changes of anthropometric measurements according to the dietary protein intake of the patients.

Materials and Methods: This study was performed in 94 volunteer patients over 65 years or older, consisted of 33 male and 61 female who applied to the geriatric outpatient clinic between February 2019 and May 2019. The demographic characteristics of the patients included in the study were recorded. The 24-hour retrospective food consumption record of patients was analyzed with the full version of the Nutritional Information System (BeBiS) and dietary protein intake levels were evaluated. Patients were evaluated in two groups according to the daily average protein intake of 1.0 g/kg. Body weight, height, Body Mass Index (BMI), upper-middle arm circumference, calf circumference, waist circumference, hip circumference, waist/hip ratio and triceps skinfold thickness were measured.

Results: Of 94 patients with an average age of 76.9 years, 35.1% were male and 64.9% were female. The average body weight of the patients is 67.5±14.2 kg, the average BMI is 26.8 kg/m^2, the average upper middle arm circumference is 26.9±3.5 cm, the calf circumference is 33.5±3.9 cm, the waist/hip ratio is 0.9±0.1 and the triceps skinfold thickness is 12.9±4.6. mm was measured. The patients consumed an average of 1679±283 kcal energy and 62±16.7 g protein daily with the diet. The protein intake of the patients was found to be 0.9 g/kg/day, based on per body weight. Sixty two point eight percent of patients consumed <1.0 g/kg/day protein (low intake level), 37.2% consumed ≥1.0 g/kg/d protein (normal intake level). Patients consuming normal levels of protein were found to have lower body weight ($p<0.05$), according to BMI classification (22–27 kg/m^2) more normal ($p<0.05$), and hip circumference ($p<0.05$) compared to those who consumed low levels of protein (Table 1).

Conclusion: Daily recommended protein intake level was found to be low in elderly patients. While the BMI classification of elderly consuming low protein was overweight, the BMI classification of patients who consumed normal levels of protein was found to be normal. An anthropometric evaluation and nutritional screening should be performed regularly to identify elderly people prone to protein deficiency. By providing an improvement in anthropometric measurements with effective dietary interventions, quality of life can be increased in the elderly.

Keywords: anthropometric measurements, older adult, protein intake, nutrition

Table 1. Evaluation of anthropometric measurements of patients according to protein intake levels

	<1.0 g/kg/day protein intake (Low) (n=59)	*≥1.0 g/kg/day protein intake (Normal) (n=35)*	*p*
Anthropometric measurements	$\bar{X} \pm SD$	$\bar{X} \pm SD$	
Body weight (kg)	70.1±15.1	63.1±11.4	<0.05
BMI (kg/m^2)	27.7±5.4	25.2±4.1	<0.05
Upper middle arm circumference (cm)	27.2±3.8	26.3±3.1	0.23
Calf circumference (cm)	33.7±3.8	33.2±4.3	0.52
Waist circumference (cm)	99.5±15.0	95.5±10.9	0.17
Hip circumference (cm)	103.0±9.4	98.0±6.6	<0.05
Waist/hip ratio	0.96±0.11	0.97±0.08	0.65
Triceps skinfold thickness (mm)	13.4±5.0	12.0±3.9	0.16

Teşekkür: Bu konfresansa/etkinliğe katılım ULEP-2020-2021/72 ile İstanbul Kültür Üniversitesi tarafından desteklenmiştir.

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INVESTIGATION OF AGING-RELATED ANOREXIA, NUTRITIONAL STATUS AND DIETARY DIVERSITY IN GERIATRIC INPATIENTS

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Background: Aging-related anorexia, defined by decreased appetite or food intake in the elderly, is an important factor that can lead to malnutrition and negative health outcomes in the geriatric inpatients. Anorexia may affect the daily diet variety in elderly patients and cause low macro and micronutrient intake. This study aims to investigate the effect of anorexia on diet diversity, which is one of the quality indicators of diet.

Material and Methods: This study was carried out in 22 volunteer patients aged 65 years or older, 7 males and 15 females who were treated in the Geriatric Service between December 2019 and February 2020. The questionnaire form including demographic information, medical history, and nutritional habits was applied to the individuals participating in the study by face to face interviews. Anthropometric measurements were measured. Appetite status (presence/absence of anorexia) was evaluated using the Simplified Nutritional Appetite Questionnaire (SNAQ). Mini Nutrition Assessment-Long Form (MNA-LF) was used for the assessment of nutritional status. Dietary diversity is defined as the number of different foods or food groups consumed in the previous day. Dietary diversity scores were calculated by recording the 24-hour retrospective food consumption records of the patients.

Results: The research group is composed of patients whose average age is 79.5 years (min: 66, max: 92) and 68.2% are female. Malnutrition was detected in 18.2% of patients and the risk of malnutri-

tion in 68.2% of patients. The mean SNAQ score of the patients was 14.2±2.8 (min: 9, max: 20). The dietary diversity score in the diets of the patients was recorded as 8.3±2.5 (min: 4, max: 16). According to the SNAQ score, patients who have a risk of weight loss compared to patients in the normal group was detected higher malnutrition/malnutrition risk ratio ($p<0.05$), higher chewing swallowing difficulties ($p<0.05$), lower daily average water consumption ($p=0.94$) and a higher diet diversity score ($p<0.05$) (Table 1).

Conclusion: Dietary quality, for which variety is a measure, is a modifiable factor for healthy aging in older adult populations. In our study, it was observed that anorexia rate was high and food diversity score was low in geriatric inpatients. Although aging of anorexia is an important area for future research, it is one of the biggest challenges of geriatric medicine with its high prevalence and negative impact on the quality of life, morbidity, and mortality. Appetite status screening may be a useful, easy, and accessible way to reach older adults who are at nutritional risk and may thus contribute to early identification and prevention of malnutrition.

Keywords: aged, appetite, anorexia, diet

Table 1. Basic demographic, appetite status and nutritional characteristics of the patients

	Total (n=22)	*Normal (SNAQ ≥15) (n=11)*	*Risk at loss of weight (SNAQ ≤14) (n=11)*	*p*
Age (years), $\bar{X} \pm SD$	79.5±8.0	79.3±8.4	79.8±7.9	0.84
Gender (Female), n (%)	15 (68.2)	9 (81.8)	6 (54.5)	0.17
BMI (kg/m2), $\bar{X} \pm SD$	26.7±7.0	26.1±6.5	27.2±7.8	0.76
BMI classification (kg/m^2), n (%)				
<22 (Underweight)	8 (36.4)	4 (36.4)	4 (36.4)	
22–27 (Normal)	3 (13.6)	2 (18.2)	1 (9.1)	
>27 (Overweight/obese)	11 (50.0)	5 (45.5)	6 (54.5)	
MNA-LF score, $\bar{X} \pm SD$	20.5±3.9	22.7±2.7	18.3±3.7	<0.001
MNA-LF classification, n (%)				<0.05
Normal nutritional status	3 (13.6)	3 (27.3)	-	
At risk of malnutrition	15 (68.2)	8 (72.7)	7 (63.6)	
Malnutrition	4 (18.2)	-	4 (36.4)	
Difficulty in chewing-swallowing, n (%)				<0.05
Yes	9 (40.9)	2 (18.2)	7 (63.6)	
No	13 (59.1)	9 (81.8)	4 (36.4)	
Skipping a meal, n (%)				0.67
Yes	11 (50.0)	5 (45.5)	6 (54.5)	
No	11 (50.0)	6 (54.5)	5 (45.5)	
Water consumption (mL), $\bar{X} \pm SD$	1190.9±537.1	1245.4±625.0	1136.3±456.6	0.94
Dietary diversity score, $\bar{X} \pm SD$	8.3±2.4	9.3±2.6	7.2±1.9	<0.05
Dietary diversity, n (%)				<0.05
≤6 (low)	4 (18.2)	-	4 (36.4)	
7–16 (moderate)	17 (77.3)	10 (90.9)	7 (63.6)	
≥17 (high)	1 (4.5)	1 (9.1)	-	

Teşekkür: Bu konfresansa/etkinliğe katılım ULEP-2020-2021/72 ile İstanbul Kültür Üniversitesi tarafından desteklenmiştir.

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MINI NUTRITIONAL ASSESSMENT AND ITS RELATIONSHIP WITH SOME BIOCHEMICAL PARAMETERS ELDERLY UNDERGOING HEMODIALYSIS

Kübra Aydın

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Aim: Improving quality of life and survival in hemodialysis patients are possible with adequate dialysis, quality vascular access, prevention of infection and cardiovascular diseases, psychosocial support and good nutrition. Inflammation and inadequate hemodialysis, which are frequently encountered in the hemodialysis process, play a key role in the development of malnutrition. The prevalence of protein energy malnutrition in hemodialysis patients is between 23–76%. The risk of malnutrition and malnutrition is more common in elderly patients. Evaluation of malnutrition with appropriate and reliable methods is of great importance. The Mini Nutritional Assessment (MND) test is a simple and reliable method used in clinical practice to determine the nutritional status of the elderly. In this study, it is aimed to determine the relationship between nutritional status and some biochemical findings of patients with MND test in patients with a regular hemodialysis program over 65 years old.

Materials and Methods: The nutritional status of patients over 65 years old who dialysed in our hospital were determined by MND test. Age, gender, dialysis entry urea-creatine, Na, K, Hb, ferritin, calcium, phosphorus, albumin, saturation of transfer, HDL, LDL, TG, cholesterol, uric acid, Kt/V, PTH, BMI values and residual urine amount, dialysis time was recorded. SPSS for Windows 21.0 statistical software was used to evaluate the data.

Results: 26 patients over 65 years old were included in the study. 53.8% of the patients were male and 46.2% were female. The mean age of application was 72.5±6.9 years. According to nutritional evaluation results patients were divided into three groups as malnourished, at malnourished risk and normally nourished. Of the 26 patients who can be evaluated according to MNA, 46.2% were normal nutrition and 53.8% were at risk. No patient with malnutrition was detected.

Conclusion: There was a significant relationship between malnutrition risk and hemodialysis entry potassium ($p=0.05$) and malnutrition risk and hemodialysis entry creatinine ($p=0.008$). There was no significant relationship between malnutrition and hemodialysis entry urea ($p=0.07$), albumin, Kt/v, Hb, ferritin, calcium, phosphorus, saturation of transfer, HDL, LDL, TG, cholesterol, uric acid, PTH values, residual urine amount, dialysis time, BMI.

Keywords: mulnutrition, renal dialysis

MALNUTRITION

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IS PROGNOSTIC NUTRITIONAL INDEX USEFUL FOR EVALUATION OF THE NUTRITIONAL STATUS IN ELDERLY PATIENTS?

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Introduction: Risk of malnutrition is known to be increasing with age. Early diagnosis of malnutrition may help to reverse or prevent the negative outcomes associated with poor nutritional status. Many screening methods are being used for screening and diagnosing malnutrition (1). In this study we aimed to evaluate efficacy of prognostic nutritional index (PNI) in elderly patients. While evaluating effectiveness on PNI, we compared it with geriatric nutritional risk index (GNRI) according to their relationship with other nutritional tests and frailty indices.

Material and methods: This cross-sectional study was conducted for a period of 3 months from September 2019 to December 2019. The study was based on the data from patients who admitted to outpatient polyclinic of geriatrics. Malnutrition was assessed by using mini nutritional assessment short form (MNA-SF), long form (MNA-LF), Global Leadership Initiative on Malnutrition criteria (GLIM), PNI and GNRI. PNI was calculated with the formula, "10xalbumin (g/dL) +0.005xlymphocyte count/μL" (2). GNRI was calculated with the formula, " (1.489 × serum albumin (g/L)) + (41.7 × (current body weight/ideal weight)" (3). Frailty was assessed by using Fried and SOF (Study of Osteoporotic Fractures) criteria. Data analysis was done by using SPSS (Statistical Package for the Social Sciences) version 22. Chi square test, correlation analysis and linear regression model were used to evaluate relationship between parameters.

Results: The study population was composed of 43 women and 35 men, of mean age 72.6 +/– 7.4 years. According to PNI 8 of them were severely malnourished, 11 of them mildly malnourished and 59 were normal. According to GNRI 6 of them had high risk, 6 of them had moderate risk, 5 of them had low risk and 61 of them had no risk for malnutrition. PNI and GNRI was found to be related with each other ($p<0.001$, $r=0.714$). Both PNI and GNRI were positively related with MNA-SF, MNA-LF and negatively related with GLIM. Also SOF scores were revealed to be negatively related with PNI and GNRI. Fried scores were only related with GNRI. Results were depicted in table-1. Nutritional status of patients according to MNA-SF, MNA-LF, GLIM, PNI and GNRI were summarized in table-2. In linear regression analysis, only GNRI were found to be independently related with MNA-SF and MNA-LF ($r^2=0.214$, $p=0.007$; $r^2=0.121$, $p=0.018$).

Discussion: PNI, calculated based on serum albumin and lymphocyte counts, is commonly used for predicting prognosis of cancers (2). The geriatric nutritional risk index (GNRI) is a widely used, simple, and well-established tool to assess nutritional risk in elderly (3). Results of this study made us thought that PNI was not as useful as GNRI in geriatric population. Also, MNA-SF, MNA-LF and GLIM were shown to be more sensitive when number of patients diagnosed were compared. More studies in larger populations may be better for evaluation of effectiveness of this test in geriatric population.

Keywords: malnutrition; geriatric nutritional risk index; prognostic nutritional index; SOF; Fried

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Table 1. Relationship between parameters

	MNA-SF	*MNA-LF*	*GLIM*	*SOF*	*Fried*
PNI	p=0.003 r=0.338**	p=0.02 r=0.261*	p=0.001 r=-0.381**	p=0.018 r=-0.264*	p=0.071
GNRI	p<0.001 r=0.463**	p=0.005 r=0.341**	p=0.002 r=-0.352**	p=0.015 r=-0.294*	p=0.005 r=-0.337**

Table 2. Nutritional status of patients

	MNA-SF n (%)	*MNA-SF n (%)*	*GLIM n (%)*	*PNI n (%)*	*GNRI n (%)*
normal	27 (35%)	32 (41%)	37 (48%)	59 (76%)	61 (78%)
risk of malnutrition	33 (42%)	36 (46%)	23 (29%) (moderate malnutrition)	11 (14%) (moderate malnutrition)	11 (14%) (low-moderate risk)
malnutrition	18 (23%)	10 (13%)	18 (23%) (severe malnutrition)	8 (10%) (severe malnutrition	6 (8%) (high risk)

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ASSESSMENT OF RELATIONSHIP BETWEEN SARCOPENIA, FRAILTY AND MALNUTRITION BY EXPLOITING NEW CRITERIA

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Introduction: Frailty, sarcopenia and malnutrition are common geriatric syndromes that thought to be associated with disability and reduced life expectancy. In this study, we aimed to define relationship between frailty, sarcopenia and malnutrition. We also evaluated, which diagnosing method for malnutrition or frailty showed the relationship more accurately.

Material and methods: This cross-sectional study was conducted for a period of 4 months from September 2019 to January 2020. Patients applied to outpatient clinic of geriatrics were taken in the study. Malnutrition was assessed by Mini Nutritional Assessment–Short Form (MNA–SF), Mini Nutritional Assessment–Long Form (MNA-LF) and Global Leadership Initiative on Malnutrition (GLIM) criteria. Katz Index of Independence in Activities of Daily Living (ADL) and Lawton –Brody Instrumental Activities of Daily Living Scale (IADL) were done for disability. Frailty was evaluated by Fried's criteria and Study of Osteoporotic Fractures (SOF) criteria. EWGSOP 2 (European Working Group on Sarcopenia in Older People) criteria were used to diagnose sarcopenia (1). Data analysis was done by using SPSS (Statistical Package for the Social Sciences) version 22. Chi square test, correlation analysis and linear regression model were used to evaluate relationship between parameters.

Results: The study population was composed of 57 women and 43 men, of mean age 72.8 +/– 7.4 years. According to SOF criteria 20 patients were robust, 35 patients were pre-frail, and 45 patients were frail. According to Fried criteria 5 patients were robust, 49 patients were pre-frail, and 46 were frail. Handgrip strength, skeletal muscle mass index (SMMI), gait speed and timed up and go test (TUG) score were better in males. Other parameters weren't related with gender (table-1). Frailty was found to be related with malnutrition and sarcopenia. Malnutrition was associated with sarcopenia. Both gait speed and TUG score were shown to be related with frailty. Also, ADL and IADL were related with frailty. Results were depicted in table -2 and table-3. Handgrip strength was found to be independently related with SOF and Fried criteria in linear regression analysis (r^2=0.222, p=0.003; r^2=0.200, p<0.001). GLIM criteria was shown to be the only malnutrition measure that independently related with SOF criteria (r^2=0.414, p=0.01). Fried criteria were independently related with MNA-SF, MNA-LF and GLIM criteria (r^2=0.474; p=0.007, p=0.017, p=0.01). SOF criteria were independently related with IADL (r^2=0.117, p=0.011).

Discussion: Frailty and sarcopenia are important geriatric syndromes. Definitions of frailty and sarcopenia are still developing. New screening and diagnosing methods for malnutrition are under development. Malnutrition plays a key role in the pathogenesis of frailty and sarcopenia (2). In this study, SOF criteria and GLIM criteria were shown to be better when relationship with other syndromes considered.

Keywords: sarcopenia, frailty, malnutrition

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Table 1. Relationship of parameters with gender

Parameters	Mean (Male)	Standard Deviation (Male)	Mean (Female)	Standard Deviation (Female)	P=
handgrip	30.13	12.46	19.01	9.6	0.012*
SMMI	11.37	1.57	10.52	1.47	0.01*
gait speed	0.51	0.15	0.44	0.14	0.05*
MNA-SF	9.91	2.54	11.02	3.95	0.296
MNA-LF	21.96	3.94	22.65	5.06	0.103
GLIM	0.78	0.74	0.88	0.81	0.592
SOF	1.34	0.97	1.47	1	0.985
Fried	2.6	1.5	2.66	1.43	0.954
Katz	5.37	1.03	5.30	0.91	0.569
Lawton-Brody	4.74	2.8	5.7	2.47	0.089
TUG	15.48	5.27	17.28	5.68	0.039*
SARC-F	3.65	3.56	3.91	3.20	0.04*

Table 2. Relationship between sarcopenia, frailty, disability and malnutrition

	Fried	SOF	SARC-F	Handgrip	SMMI
MNA-SF	p<0.001 r=-0.600**	p<0.001 r=-0.575**	p<0.001 r=-0.289**	p=0.353	p=0.272
MNA-LF	p<0.001 r=-0.587**	p<0.001 r=-0.536**	p<0.001 r=-0.399**	p=0.001 r=0.306**	p=0.204
GLIM	p<0.001 r=0.629**	p<0.001 r=0.603**	p=0.005 r=0.315**	p=0.002 r=-0.292**	p=0.04 r=-0.233*
	Gait speed	**TUG**	**Katz**	**Lawton-Brody**	
MNA-SF	p=0.271	p=0.047 r=-0.215*	p=0.017 r=0.251*	p<0.001 r=0.277**	
MNA-LF	p=0.691	p=0.07	p=0.001 r=0.255*	p<0.001 r=0.314**	
GLIM	p=0.319	p=0.066	p=0.002 r=-0.233*	p=0.041 r=0.217*	

Table 3. Relationship between sarcopenia and frailty

	SARC-F	Handgrip	SMMI	Gait speed	TUG
Fried	p<0.001 r=0.460**	p<0.001 r=-0.406**	p=0.240	p=0.03 r=-0.212*	p=0.02 r=0.241*
SOF	p<0.001 r=0.340**	p<0.001 r=-0.348**	p=0.022 r=-0.243*	p=0.02 r=-0.271*	p<0.001 r=0.325**

MALNUTRITION

SS – 072

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COMPARISON OF THREE NUTRITIONAL SCREENING TOOLS IN THE EVALUATION OF MALNUTRITION IN ELDERLY HEMODIALYSIS PATIENTS

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Aim: Older hemodialysis (HD) patients are more likely to develop nutritional problems and timely diagnosis of malnutrition is crucial to prevent hazardous consequences following poor nutrition. Current methods of nutritional evaluation are mostly subjective, and time-consuming. There are many methods for assessment of nutritional status in the elderly; mini nutritional assessment (MNA), recommended by the European Society of Parenteral and Enteral Nutrition (ESPEN) is the most widely used assessment which identifies the malnourished and at risk elderly. Creatinine index (CI) and geriatric nutritional risk index (GNRI) are very simple and objective methods to assess the nutritional status of HD patients. The present study compares the performance of CI, GNRI and MNA-SF as nutritional risk assessment tools.

Methods: 149 patients over 65 years old were included in our cross-sectional study in various hemodialysis units of Malatya. Anthropometric and biochemical measurements were made, CI, GNRI and MNA-SF were evaluated in our study group. The sensitivity, specificity and predictive values of the three indices, their compatibility and their correlation with anthropometric and biochemical pa-

rameters were evaluated. In our study population, recipient surgery characteristic (ROC) curve analysis was performed to determine the optimal cut-off point for GNRI and CI.

Results: Of the 149 patients whose nutritional status was evaluated according to MNA-SF, there were twenty-eight (18.8%) normal nutritional status, severe malnutrition for forty-one patients (27.5%) and malnutrition to 80 (53.7%) patients. Cut-off values for the identification and screening of malnutrition were 90 (Se: 0.57; Sp: 0.78) and 100 (Se: 0.95; Sp: 0.42) for the GNRI; 21 CI (female) (Se: 0.76; Sp: 0.100) and 18.5 (Se: 0.78; Sp: 0.46) for the CI (male), respectively.

Discussion: CI or GNRI was a valid tool for longitudinal monitoring of patients' nutritional status in chronic HD and facilitated screening of malnutrition cases. however, compared with CI, it was found to be higher in GNRI performance for evaluation and monitoring of Nutritional status in HD patients.

Keywords: nutritional screening tools, malnutrition, hemodialysis

Table 1. Demographics of hemodialysis patients according of nutritional status (n=149)

Variables	*Severe malnutrition*	*Moderate malnutrition*	*Normal*	*p value*
N (%)	41 (27.5)	80 (53.7)	28 (18.8)	
Dialysis vintage (m)	65.59±46.094	76.22±50.369	53.29±34.565	0.26
BMI (kg/m^2)	21.74±3.80	23.80±3.15	32.11±4.29	0.00*
Albumin (g/dL)	3.46±0.45	3.63±0.24	3.81±0.24	0.00*
Vit D	11.30±7.31	9.11±4.57	10.96±8.40	0.52
Kt/V	1.78±0.34	1.70±0.35	1.66±0.39	0.45
GNRI	91.92±9.66	98.25±6.24	116.35±7.12	0.01*
CI Men (n=81)	19.61±2.41 (n=21)	19.87±2.22 (n=51)	20.35±2.46 (n=9)	0.30
CI Women (n=68)	17.68±2.03 (n=20)	19.16±2.66 (n=29)	18.44±2.48 (n=19)	0.07

NEUROLOGIC DISORDERS

SS – 074

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INVESTIGATION OF PERIPHERAL INFLAMMATION IN TWO NEURODEGENERATIVE DISEASES OF THE CENTRAL NERVOUS SYSTEM

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Introduction: Alzheimer's disease (AD) is the most common cause of dementia in the elderly population. It is a progressive, neurodegenerative disease of the central nervous system, characterized by impaired cognitive functions, inability to perform daily living activities, and behavioral disorders (1). Cerebral amyloid deposition and the presence of neurofibrillary tangles are responsible for the pathogenesis of the disease. Idiopathic Parkinson's disease (PD) is a neurodegenerative movement disorder manifested by tremor, rigidity, bradykinesia and postural imbalance, which are also common in the elderly population. In PH; Cells secreting dopamine degenerate with damage to the basal ganglia, especially the substantia nigra (2). Inflammation is a well-known feature of many chronic diseases. It is assumed that inflammation has a direct or indirect effect on the pathophysiology of these two most common neurodegenerative diseases of the geriatric population (3). Many studies have shown that the Neutrophil-to-lymphocyte ratio (N/L) may be a marker for peripheral inflammation (4).

Aim: The purpose of this study is to evaluate the NLR in patients diagnosed with AD and PD through a comparative approach.

Methods: The study is conducted on 102 PD and 87 AD patients who have been diagnosed at the Neurology Outpatient Clinic, and 40 healthy subjects who have been confirmed to have no chronical diseases by the Internal Diseases Outpatient Clinic of our hospital. Complete blood count parameters were collected retrospectively from the internal records of the hospital.

Findings: Table 1 shows the mean values of PD, AD and control group's age and CBC parameters. The means were compared statistically. Table 2 and Table 3 indicate that the NLR of PD patients was more statistically significant than that of AD patients and the control group.

Discussion and Conclusion: Studies reporting that chronic inflammation plays a critical role in the occurrence and progression of chronic neurodegenerative diseases in the literature have increased in recent years. It is discussed that N/L, which is considered as a marker showing peripheral inflammation in chronic diseases, can obtain information about the course of the disease and response to treatment. In this study, it was found that N/L in PH was significantly higher than the control group and AD. Although it can be interpreted in favor of more peripheral chronic inflammation in Parkinson's disease, the relation of this finding with disease course characteristics and subtypes should be evaluated.

Keywords: Alzheimer's disease, Parkinson's disease, neutrophil-lymphocyte ratio

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Table 1. Means of PD, AD and the control group

	Parkinson's (N: 102)	*Alzheimer's (N: 87)*	*Control (N: 40)*
Age	71.3±10.1	77.2±9.01	68±5.1
Hb	12.7±1.4	12.7±1.3	13.7±1.3
MCV	90.2±6.3	90.9±6.1	91.1±5.1
RDW	14.1±2	15.1±7.85	13.5±1.24
NLR	2.48±1.7	2.14±1.1	1.86±0.7

Table 2. Statistical analysis of PD and AD patients

	Parkinson's (N: 102)	*Alzheimer's (N: 87)*	*P*
Yaş	71.3±10.1	77.2±9.01	<0.001
Hb	12.7±1.4	12.7±1.3	>0.05
MCV	90.2±6.3	90.9±6.1	>0.05
RDW	14.1±2	15.1±7.85	>0.05
NLR	2.48±1.7	2.14±1.1	0.008

Table 3. Statistical analysis of PD and control group

	Parkinson (N: 102)	Kontrol	P
Yaş	71.3±10.1	68±5.1	0.015
Hb	12.7±1.4	13.7±1.3	0.001
MCV	90.2±6.3	91.1±5.1	>0.05
RDW	14.1±2	13.5±1.24	>0.05
NLO	2.48±1.7	1.86±0.7	0.001

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 075

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LIFETIME DAIRY CONSUMPTION AND HEALTH RELATED QUALITY OF LIFE IN MIDLIFE WOMEN: ISPARTA MENOPAUSE AND HEALTH STUDY

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Background: Dairy consumption and its health effects has recently been in the forefront due to their association with adverse as well as favourable outcomes (Godos 2020, Willett 2020, Thorning 2016). Concerns about adverse health effects of dairy has even led to recommendations of calcium fortified foods and supplements to replace dairy (Willett 2020). However there is limited knowledge on the effect of such practices on the health related quality of life which is a multi-dimensional concept that includes domains related to physical, mental, emotional, and social functioning.

Objectives: To evaluate how lifetime intake of dairy and other sources of calcium and vitamin D influence health related quality of life in participants of the Isparta Menopause and Health Study (IMH) Study.

Methods: Self-reported information on subject characteristics were derived by cognitive interviewing of participants of the cross-sectional IMH Study (2006–2008). The intake of dietary sources of calcium and vitamin D were assessed with the help of a food frequency questionnaire. The interviews were performed by 2 trained nurses followed with a debriefing session by the principal investigator. Factors in this analysis included reproductive, health-related and socioeconomic variables and variables defining the intake of calcium and vitamin D. HRQOL was assessed with the Brief Version of The World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF). Association between HRQOL and predictor variables was analysed with linear mixed-effects models treating the interviewer as a random effect.

Results: N=1106 women (aged 44–61) were evaluated. Mean (SD) WHOQOL-BREF score was 99.9 (10.1). Of the 5 variables defining the intake of calcium and vitamin D, all but lifetime number of months on calcium were associated with WHOQOL-BREF score in univariate analysis (Table). Lifetime use of headscarf and lifetime number of months on vitamin D had a negative influence on the total score whereas Lifetime fish consumption and lifetime dairy consumption had a positive influence. Among the 5 variables only lifetime dairy consumption was an independent predictor of WHOQOL-BREF score, with higher intake of dairy predicting better QOL scores. When analysis was repeated for 3 domains of WHOQOL-BREF score (physical, psychological and social-environmental), lifetime dairy consumption was the strongest predictor for each domain.

Conclusions: Our findings are consistent with health benefits of dairy intake and a previous study which reported a positive influence of dairy intake on QOL for teenage boys, though not in girls (Gopinath 2016). Our intake assessment which reflects not only current but also past habits may have contributed to disclosing a stronger association in this study. The mechanism for positive health effects of dairy products may stem from their specific bioactive components such as whey protein, probiotics in fermented dairy products, fatty acids and minerals (Park 2009).

Keywords: health related quality of life, dairy intake, vitamin D intake, calcium intake

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Table 1. Unadjusted and multivariate* adjusted regression coefficients predicting WHOQOL-BREF score for variables defining intake of calcium and vitamin D (N=1106)

Category	No (%) of participants	Unadjusted regression coefficient (SE)	P	P for trend	Multivariate* adjusted regression coefficient (SE)	P	P for trend
Lifetime use of headscarf							
<half of adulthood	447 (40)	0	<0.0001	<0.0001	0	0.3860	0.6643
half of adulthood	46 (4)	-3.53 (1.53)			-1.67 (1.48)		
>half of adulthood	613 (55)	-4.24 (0.62)			0.36 (0.87)		
Lifetime number of months on calcium							
0	488 (44)	0	0.4691	0.2318	0	0.4384	0.2046
0.3–3	355 (32)	-0.28 (0.72)			-0.54 (0.74)		
3.5–132	263 (24)	-0.95 (0.77)			-1.37 (1.09)		
Lifetime number of months on vitamin D							
0	751 (68)	0	0.0528	0.0385	0	0.3756	0.2146
0.3–3	192 (17)	-1.74 (0.82)			-1.15 (0.88)		
4–132	163 (15)	-1.34 (0.87)			-1.13 (1.26)		
Lifetime fish consumption (serving/week)							
0 – 0.4573	320 (29)	0	<0.0001	<0.0001	0		
0.4651– 0.9876	326 (30)	1.78 (0.79)			0.82 (0.74)	0.1886	0.0708
1–3.5	460 (42)	3.67 (0.74)			1.30 (0.71)		
Lifetime dairy consumption (serving/week)							
1.278–10.878	368 (33)	0	<0.0001	<0.0001	0	<0.0001	<0.0001
10.880–15.138	369 (33)	2.93 (0.73)			2.33 (0.70)		
15.14–43.1	369 (33)	5.08 (0.73)			4.28 (0.72)		

SE: Standard Error, *Multivariate adjusted regression coefficient derived from comprehensive model which includes reproductive, health-related and socioeconomic variables and variables defining intake of calcium and vitamin D.

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 076

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AGEISM NEVER GETS OLD: RESULTS OF A SURVEY TO UNDERSTAND PREJUDICE AND ATTITUDES TOWARD THE AGED IN THE ERA OF COVID-19

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Purpose: Ageism against the elderly differs from other forms of discrimination in that every human being is inevitably a subject of it as they live long enough. In the era of COVID-19, as the older population is under the spotlight, ageism can be encountered in various aspects of life, such as conventional/social media and our daily lives. To assess society's prejudice and attitudes toward elderly during the pandemic and to understand whether the ageism is related to nonfactual information spread, we designed an online survey. To the best of our knowledge, this is the first study addressing these questions based on responses to a survey.

Material and Methods: We designed a cross-sectional online survey consisting of 26 questions to assess/understand the perception and attitudes of the Turkish population toward the elderly during the pandemic. Among the questions, 5 of them were demographic, rest of them questioned false beliefs and community's source of information about COVID-19, attitudes to aged, and awareness of ageism.

Findings: 550 participants enrolled into the study. 65.3% of them are women. 94.3% of participants are under 65 years old. 81.1% of participants never heard about ageism term. Surprisingly, 23% falsely believe that older people spread the virus more than young ones. There is a significant relation between not knowing ageism and false beliefs (p=0.04). As can be expected, false information is more common at the low education levels. On the other hand, 51% of respondents think that health services during the pandemic should be prioritized according to age with 35% thinking that <55 years should be favored. Finally, although almost everyone (% 92.4) agrees that the elderly experience psychological distress during the pandemic, only 50% of respondents take action to reduce anxiety of their elderly relatives.

Conclusion: 'A society is measured by how it cares for its "older" citizens' says WHO. In this regard, we tried to understand how our society approaches the elderly and cares for them throughout COVID-19 pandemic. Our results suggest that educating the society about facts and prevention of misinformation may reduce ageism. Finally, we believe that increasing awareness is our duty as healthcare providers until the next pandemic.

Keywords: COVID-19, ageism, elderly, pandemic, aged

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 077

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EVALUATION OF THE RELATIONSHIP BETWEEN DIABETIC NEPHROPATHY AND FRAGILITY IN HEMODIALYSIS PATIENTS

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Purpose: The leading cause of chronic hemodialysis in all over the world has been diabetic nephropathy. Diabetes mellitus is known to be a risk factor for frailty, but it still remains unknown whether diabetic nephropathy is associated with frailty in chronic dialysis patients. We carried out the present study to reveal the association between frailty and diabetic nephropathy in chronic hemodialysis patients.

Material and Methods: A total of 151 patients who were on hemodialysis were recruited. Participants were divided into two groups of either patients who suffered diabetic nephropathy with endstage renal disease (DN group, n=66 (45%)) or not (Non-DN group, n=83 (55%)). The authors investigated the difference of the prevalence of frailty between the two groups.

Findings: The prevalence of frailty in the DN group was significantly higher than that in the Non-DN group (80.8% vs 15.6%, P=0.00). To evaluate the association between frailty and its risk factors, we compared frail patients (n=56), patients at risk of fragility (n=42) and non-frail patients (n=53). We found a significant relationship between fragility and age, dialysis vintage, HbA1 c levels, and nutritional parameters between GNRI and CI.

Conclusion: We found a close relationship between fragility and diabetic nephropathy in chronic hemodialysis patients. In addition, we found that it is effective in the age of patients as well as dialysis age and nutritional status in fragility.

Keywords: diabetes mellitus, diabetic nephropathy, frailty, hemodialysis

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 078

Publication Hall: *Salon B*
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ANXIETY AND DEPRESSION AMONG GERIATRIC POPULATION DURING THE OUTBREAK OF COVID-19

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Objective: Older age and the presence of comorbidities are associated with increased risk of mortality during the outbreak of COVID-19 pandemic. Similar with many other countries, a curfew for elderly people was announced in Turkey on March 21, 2020 to protect the geriatric population by decreasing the rate of transmission. The restrictions and social isolation were assumed to be protective interventions on physical health of tha3t population, however, they also might cause psychological distress, anxiety and depression (Santini et al, 2020). Anxiety and depressive disorders were common in elderly and both were related with decreased physical activity, well-being and functional ability. There are many studies conducted on COVID-19 pandemic but as far as we know, only a few researched anxiety and depressive symptoms among elderly population during the curfew period. We hypothesized that; due to the pandemic itself and restrictions imposed to that population, physical and mental symptoms like anxiety, depressive symptoms, sleep and memory problems, hopelessness, change in appetite and decrease in physical activities may occur or get worse.

Methods: 136 geriatric participants who had admitted to outpatient clinics in last 6 months were included in the study. Due to the curfew for people aged 65 or older at the time that study was conducted, the participants were called for interview. On the phone, the data including sociodemographic features, knowledge about infection and physical symptoms of COVID-19 were recorded. Physiological impact, anxiety and depressive symptoms were assessed by Hospital Anxiety and Depression Scale (HADS). Concerns associated with the infection, sleep and memory problems, hopelessness, changes in appetite and physical activities during pandemic were also questioned. Data were analyzed using SPSS version 21.0.

Results: The mean age of participants (n=136) was 73.3 years and 60.3% were female. The most common comorbidity was hypertension (75%) and diabetes (45.6%). Hundred and nine participants who were physically active at different levels before the curfew, had a reduction in physical activity or no activity during this period. Fourty two participants (30.9%) defined at least one symptom compatible with COVID-19 infection during isolation, but none of them had COVID-19 diagnosis. The rate of participants that postponed the admission to hospital was 47.8%. The rate of changes in appetite was 23.5%, new-onset or worsened memory problems was 25.7%, changes in sleep pattern was 28.7% and fatigue was 30.1%. Approximately half of the participants (43.4%) reported hopelessnes about the future. The frequency of anxiety and depressive symptoms were 25.7% and 16.9%, respectively among the participants according to HADS subscales and total scores of 29.4% of participants were above cut-off point of HADS. Female patients had higher HADS-anxiety, HADS-depression and HADS-total scores than male participants ($p<0.05$). Participants with anxiety and depression, reported more sleep problems, lower energy and hopelessness about the future, and they postponed hospital admissions more frequently.

Conclusion: These results supported that the geriatric population was mentally affected from the restrşctşons and isolation, consistently with previous studies (Qui et al, 2020; Wang et al, 2020). Females were found to be at higher risk for anxiety and depression during COVID-19 pandemic. Sleep disturbances, hopelessness, changes in appetite, fatigue and memory problems were common in elderly patient during curfew period. Increasing mental health problems may lead physical well-being to get worse, thus we should pay attention to elderly people during ongoing pandemic. Early detection of high risk population is important to provide appropriate psychosocial support to this vulnerable population.

Keywords: COVID-19, elderly, depression, anxiety, mental health, SARS-CoV-2

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 079

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VITAMIN D DEFICIENCY IN GERIATRIC PATIENTS

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Introduction: The duration and level of vitamin D deficiency, which is usually asymptomatic in adults, is also effective in the appearance of symptoms. Knowing the level of vitamin D in geriatric patients who are at risk for bone health is very important in terms of mortality and morbidity of patients.

Method: 792 patients over 65 years of age who applied to the university hospital geriatrics outpatient clinic between January 2018 and August 2019 were included in our study. The data obtained were recorded in SPSS 21.0 program (Statistical Package For Social Sciences v. 21.0, SPSS Inc. Chicago, IL). Vitamin D levels were measured as 25 (OH) Cholecalciferol. It was evaluated as deficiency below 20 μg/L, insufficiency between 20–30 μg/L, normal between 30–85 μg/L and height above 85 μg/L. The ages of the patients were classified as 65–85 years old and 85–105 years old. Comparison was made between two groups t-test (student's t-test) for continuous variables.

Results: 25 (OH) Cholecalciferol values of patients were found to be deficient in 47.1%, insufficient in 25.1%, normal in 25.9%, and high in 1.9%.

To investigate whether there is a difference between vitamin D deficiency and age, 25 (OH) Cholecalciferol levels of patients who were divided into two groups as 65–84 years (Group-1) and 85–105 years (Group-2) were compared. No significant difference was found between vitamin D deficiency and age. ($P=0.5$). The average vitamin D in the first group was 24.7 μg/L and in the second group it was 23.7 μg/L.

Conclusion: Vitamin D deficiency, which is important at all ages, is an important condition in terms of bone metabolism especially in geriatric age and its deficiency should be replaced. It is very important to look at the vitamin D levels of very old people who remain indoors with age, in terms of morbidity and mortality due to falling.

Keywords: 25 (OH) cholecalciferol, geriatric patient

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 080

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ASSOCIATION OF ANTICHOLINERGIC BURDEN WITH COGNITIVE AND PHYSICAL FUNCTIONS IN OLDER ADULTS

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Objectives: Anticholinergic medications are usually prescribed for older adults and associated with adverse outcomes. The aim of the present study is to investigate the association between anticholinergic burden and health outcomes such as disability in activities for daily living, frailty, depression, cognitive decline and falls.

Methods: A cross-sectional study was conducted in the outpatient clinic with 600 patients aged 60 years and above. Anticholinergic burden was measured using the Anticholinergic Drug Scale (ADS). Cognitive decline was evaluated using the Mini Mental State Examination (MMSE). The Katz Index was used to evaluate their activities of daily living (ADL), and the Lawton Index was used to assess the instrumental activities of daily living (IADL). Depression was assessed using the Geriatric Depression Scale (GDS). The FRAIL scale was used to determine the degree of frailty of patients. The number of falls were assessed by self-reported fall in the last year.

Results: The mean age of the study population was 72.1±7.6 years and 33 (5.5%) patients were exposed to high anticholinergic effect. An increased anticholinergic burden was associated with number of chronic diseases (p=0.011), number of drugs (p=0.001), frailty (p=0.017), and disability in IADL (p=0.026). There was no significant association with falls, depression, cognitive decline and disability in ADL.

Conclusion: Increased anticholinergic burden was associated with some of adverse outcomes in our study unlike other studies. This could be related to number of patients exposed to high anticholinergic effect. Further studies are needed to evaluate the association between anticholinergic medications and adverse health outcomes.

Keywords: Anticholinergic burden, drugs, older adults

Table 1. Demographic and clinical characteristics of study population

Characteristics	Entire sample (n = 600)	ADS low (<3 points) (n=567)	ADS high (≥3 points) (n=33)	P value
Age, mean ± SD	72.11 ± 7.625	72± 7.645	74± 7.137	0.144
Female, n (%)	423 (70.4)	400 (94.56)	23 (5.43)	0.527
Male, n (%)	177 (29.5)	167 (94.35)	10 (5.64)	0.527
Chronic conditions				
Diabetes, n (%)	278 (46.3)	263 (94.60)	15 (5.39)	0.528
Hypertension, n (%)	411 (68.4)	385 (93.67)	26 (6.32)	0.134
Cerebrovascular disease, n (%)	36 (6)	32 (88.88)	4 (11.11)	0.129
Parkinson disease, n (%)	18 (3)	18 (100)	0 (0)	0.356
Dementia, n (%)	22 (3.7)	19 (86.36)	3(13.63)	0.114
Osteoporosis, n (%)	43 (7.2)	41 (95.34)	2 (4.65)	0.573
Coronary heart disease, n (%)	104 (17.3)	98 (94.23)	6 (5.76)	0.525
No. of diseases, mean ± SD	2.57± 1.410	2.54± 1.405	3.18± 1.380	**0.011**
No. of drugs, mean ± SD	4.05± 2.817	3.88± 2.671	6.91± 3.609	**<0.001**

Bold values are statistically significant

ADS: Anticholinergic drug scale, SD: standard deviation, No.: Number

Table 2. Geriatric syndromes related to anticholinergic drugs according to ADS

Geriatric syndromes	ADS (<3 points)	ADS (≥3 points)	P value
Falls, n (%)	189 (96.42)	7 (3.57)	0.339
Disability in ADL, n (%)	16 (84.21)	3 (15.7)	0.080
Disability in IADL, n (%)	113 (90.4)	12 (9.6)	**0.026**
Frail, n (%)	151(90.4)	16 (9.5)	**0.017**
Prefrail, n (%)	294 (96.71)	10 (3.28)	
Depression, n (%) (GDS<14)	220 (92.82)	17 (7.17)	0.129
Cognitive decline, n (%) (MMSE<24)	133 (93.66)	9 (6.33)	0.405

Bold values are statistically significant

ADS: Anticholinergic drug scale, ADL: activities of daily living, IADL: instrumental activities of daily living, GDS: Geriatric Depression Scale, MMSE: Mini Mental State Examination

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 083

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POLYPHARMACY AND POTENTIALLY INAPPROPRIATE MEDICATIONS OF NURSING HOME RESIDENTS; PILL BURDEN AND COMORBIDITY STATUS

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Introduction: Given the rising population over the age of 65 worldwide, polypharmacy and Potentially Inappropriate Medications (PIM) have become more common in older adults, especially living in nursing home. This study focuses on pill burden and burden of comorbidities associated with polypharmacy and PIM among nursing home residents.

Material and Method: This observational and cross-sectional study was conducted between March to April 2019 among 217 adults ≥60 years of age institutionalized in Buca Nursing Care Home in Izmir.

Results: By univariate analysis, total number of comorbidities and pill number were significantly associated with both PIM and polypharmacy ($p<0.001$). However, these were not seen in the multivariate analyses. Also, the multivariate analyses showed that incontinence and constipation increase the use of PIM 3.2-fold, 8.4-fold respectively.

Conclusion: Current comorbidity indices are usually designed to predict survival. To predict PIM use, comorbidity index including specific comorbidities that increase PIM such as constipation and incontinence, should be designed. Besides, increasing pill number could reduce medication adherence and increase side effects and adverse drug reaction. So, pill number is important as well as medication number in terms of PIM use.

Keywords: polypharmacy, potentially inappropriate medications, pill burden, burden of comorbidities, nursing home residents

Table 1. Not questioned STOPP criteria

Central nervous system and psychotropic drugs	
	- Selective serotonin re-uptake inhibitors (SSRI's) with a history of clinically significant hyponatremia (non-iatrogenic hyponatremia < 130 mmol/l within the previous 2 months) - At a long-term dose >125microgram/day with impaired renal function (eGFR <50mL/minute)
Musculoskeletal System	
	- Non-steroidal anti-inflammatory drug (NSAID) with chronic renal failure - eGFR 20-50mL/minute
Endocrine System	
	- Metformin in patients with eGFR<30

Table 2. Questioned comorbidities

Arrhythmia	Malignancy
Asthma	Muscle-skeletal disease (osteoarthritis etc.)
Benign tremor	Osteoporosis
Bleeding disorder	Parkinson's disease
Cardiovascular disease	Peptic ulcer disease
Cerebrovascular disease	Peripheral vascular disease
Chronic constipation	Psychotic disorders
Chronic obstructive pulmonary disease	Restless leg syndrome
Chronic prostatism	Rheumatoid disease (rheumatoid arthritis etc.)
Chronic renal failure	Sleep disorders
Cognitive disorders (Dementia etc.)	Symptom-Oriented Drug Therapy (pain, itching,
Depression	dizziness-vertigo, forgetfulness, vomiting and
Diabetes mellitus	nausea, diarrhea)
Gastrointestinal bleeding	Thyroid disease
Glaucoma	The other chronic comorbidities which are taken
Gout	medicine (epilepsy, Aortic aneurysm, diabetic
Heart failure	neuropathy
Hypertension	

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 084

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AN OVERVIEW OF A PATIENT PROFILE IN A NEW ESTABLISHED GERIATRIC OUTPATIENT CLINIC

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Introduction: The older population in the world and also in our country rapidly increase due to many factors such as development in health technologies, improved sanitation, raising awareness for prevention and treatment of many fatal diseases. As a consequence geriatric syndromes have become highly prevalent. Herein, I would like to present an overview of patient profile and prevalence of common geriatric syndromes in a new established geriatric outpatient clinic.

Methods: The data of the patients who admitted to our hospital geriatric outpatient clinic between September 2019- February 2020 consisting of gender, age, primary complaint during admission, the number of diseases and mediciations, geriatric syndromes and symptoms associated with geriatric syndromes, hospitalization status were evaluated retrospectively. Mini-nutritional assessment short form and FRAIL scale were used to assess malnutrition and frailty respectively.

Results: 70 patients aged between 62–97 (mean: 76.81±7.86) were included in this study. 49 patients (70%) were female and 21 (30%) patients were male. While the 20% of the patients admitted only for geriatric assessment, 64.3% of the patients' complaints were primarily associated with geriatric syndromes. Sleep problems were common and affected 65.2% of the patients. 60.9% and 34.8% of the patients reported forgetfullness and urinary incontinence respectively. 47.1% of the patients needed further evaluation according to the results of depression screening with two questions. 34.8% of the patients reported at least one fall in previous year. While 32.9% of the population was under the risk of malnutrition, the prevalence of malnutrition was 22.9%. 44.3% and 44.1% of the patients were prefrail and frail respectively. The number of medications varied 0–16 (mean:

5.45±3.36). Prevalence of polypharmacy was 65.2% and 51.5% of the patients used at least one potentially inappropriate medication (PIM). . 20.3% of the patients was hospitalized after the first or the second admission. Prevalence of fraility, sleep problems and depressive symptoms were statistically different between genders and more common in female (p=0.01, p=0.001 and p=0.04 respectively).

Conclusion: Geriatric syndromes are highly prevalent among community dwelling older people. The frequency of PIM use and sleep problems were striking in our patient group. Comprehensive geriatric assessment is essential in a large proportion of the population. Geriatricans play important role for the improvement of qualified health care for older people.

Keywords: geriatric assessment, insomnia, potentially inappropriate medication

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 085

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THE FREQUENCY OF SHORT-TERM MORTALITY IN OLDER PATIENTS IN THE INTENSIVE CARE UNIT AND THE PREDICTORS OF MORTALITY

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Background/Purpose: There is an increased number of older patients in intensive care units. Decreased physiological reserve and frailty makes them more vulnerable to illnesses We aimed to evaluate short-term mortality data of older patients hospitalized in the intensive care unit (ICU) and to reveal parameters associated with mortality.

Methods: Between July 2019 and november 2019, patients who were hospitalized in our ICU were retrospectively analyzed. . The patients were divided into two groups according to age (≥65 and <65 years old). Mortality rates were calculated for one and three month after admittion to ICU in both age groups. Albumin, CRP, RDW, lenght of hospitalization, comorbidity counts and Charlson comorbidity index (CCI) were assessed

Results: 89 patients were enrolled to the study. 49 of them were <65 and 40 patient were ≥65years old. The mortality rate was 30.6% for first month and 38.7% for third month in younger group. It was 42.5% for first month and 50% for third month in older group. There was no statistically significant difference between age groups for short term mortality rates and mortality predictors (CRP, albümin, RDW and lenght of hospitalization). CCI and comorbidity counts were significantly difference in both of age groups. (p=0.037 and p=0.01, respectively). Overall patients were evaluated, high RDW and low albumin levels were statistically significant relationship with mortality (p=0.02, pearson=-0.32 and p=0.021, pearson=0.24, respectively). But, When only the elderly group is evaluated, there wasn't statistically significant difference between RDW, albümin levels and mortality. CRP, comorbidtiy counts, CCI and length of hospitalization were found to have no significant importance

Conclusion: Baseline evaluation of simple parameters that may play a role in short-term mortality of ICU older patients may be important for survival prediction. Evaluation of these factors on admission may contribute to development of different approaches to high-risk patients. This study showed that high RDW and low albümin levels increased short-term mortality, bot not in older age. These predictors may be poor to show short-term mortality in the elderly.

Keywords: mortality, intensive care unit

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Table 1. First and third month mortality rates in age groups

Age groups	*First month mortality % (n)*	*Third month mortality % (n)*	*p value*	*Pearson x2*
≥65 yaş	42.5 (17)	(20)	0.24	1.35
<65 yaş	30.6 (15)	38.7 (19)	0.28	1.12

Table 2. Relationship between Mortality predictors and age groups mortality

Predictors	*<65 years, mortality*	*≥65 years, mortality*	*All patients, mortality*
Charlson comorbidity index, Pearson x2, p value	0.282–0.05	0.03–0.85	0.164–0.125
Comorbidity counts, Pearson x2, p value	0.23–0.113	-0.32–0.04**	0.009–0.935
RDW, Pearson x2, p value	0.371–0.009**	0.29–0.069	0.319–0.002**
Albumin, Pearson x2, p value	-0.37–0.01**	-0.2–0.21	-0.301–0.004**
CRP, Pearson x2, p value	-0.075–0.610	0.17–0.286	0.047–0.664
length of hospitalization, Pearson x2, p value	0.277–0.054	0.12–0.43	0.198–0.062

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 086

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THE RELATIONSHIP BETWEEN FRAILTY AND ALPHA KLOTHO PROTEIN IN GERIATRIC PATIENTS

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Aim: Frailty; is a medical syndrome resulting in decreased endurance, loss of strength and loss of psychological function due to multiple causes of the individual with advancing age, resulting in increased dependence and/or death. We do not have sufficient data to clarify frailty formation at gene level. Klotho gene has been defined as an anti-aging gene with many functions that prolong the life span and we aimed to investigate the relationship between frailty and alpha Klotho protein.

Methods: A total of 89 patients aged 65 years and older, 45 of whom were frail and 44 of whom were not frail, without acute disease, physical disability and advanced dementia, included in the study. Within the scope of the study, sociodemographic and clinical information form, Turkish version of the validity and reliability of the FRAIL scale, and comprehensive geriatric assesment were evaluated. In addition to routine laboratory tests, plasma alpha Klotho protein levels were measured in blood tests.

Results: In our study, the mean alpha Klotho levels of the patients were 0.76±1.01 ng/ml in the control group and 0.54±0.61 ng/ml in the frail group, but there was no statistically significant difference between the two groups (p=0.286). C-reactive protein (CRP) levels were significantly higher and hemoglobin (Hb) levels were significantly lower in the frail patients compared to the control group. In our study, it was observed that alpha Klotho protein levels decreased as CRP values increased (p=0.022). As the Hb levels of the patients increased, alpha Klotho levels increased (p=0.018).

Conclusion: In our study, no significant relationship was found between alpha Klotho protein level and frailty, but the CRP level, which is considered as one of the markers of inflammation, has been found to be increased significantly in frail individuals and supports the hypothesis that chronic inflammation is involved in the formation of frailty. Alpha Klotho levels, which are defined as an anti-aging protein, decrease in CRP height, indicating that alpha Klotho levels may be important in the formation of frailty. Similar to the literature, the presence of chronic disease anemia due to chronic inflammation in frail patients was found to be significantly different in our study and Hb levels were lower in the frail group. In our study, as hemoglobin levels increased, alpha Klotho levels increased, suggesting that there may be a relationship between alpha Klotho and frailty, but further studies are needed with more patients.

Keywords: Alpha Klotho protein, FRAIL scale, frailty

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 087

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ANTITHROMBOTIC USAGE RATES IN PATIENTS OVER 65 YEARS OF AGE PRESENTING WITH ACUTE GASTROINTESTINAL BLEEDING

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Introduction: Gastrointestinal bleeding (GIB) in older adults is a frequent cause of hospital admissions. The presence of multiple comorbidities and greater medication use in this age group influence the clinical outcome. In the United States, approximately 350.000 patients are hospitalized for upper gastrointestinal bleeding (UGIB) each year and 35% to 45% are 60 years of age or older. The annual incidence of UGIB ranges between 50 to 150 per 100.000 population per year, with women aged 60 years and older accounting for 60%. The mortality of UGIB has remained approximately 6% to 10% for the past 6 decades. The exact incidence of lower gastrointestinal bleeding (LGIB) is not known, but the annual incidence of hospitalization is approximately 20 to 27 episodes per 100.000 persons per year. A 200-fold increase of LGIB is seen with advancing age from the third to ninth decades. The mortality for LGIB is 4% to 10% or greater and is more common when associated with severe bleeding and in those undergoing emergent surgery. During the clinical assessment drug history is important, especially the use of aspirin, nonsteroidal anti-inflammatory drugs (NSAIDs), and anticoagulant drugs. In this study we aimed to evaluate the antithrombotic usage rates in patients over 65 years of age presenting with acute gastrointestinal bleeding.

Patients and Methods: A total of 112 patients who were admitted to gastroenterology department of our hospital with GIB in the last year were enrolled in this study. The past medical history was learned from retrospective data. Laboratory parameters, endoscopy and colonoscopy reports, total number of daily drug usage, antiplatelet, NSAIDs, anticoagulation usage were recorded. Bleeding proximal to the ligament of Treitz was termed as UGIB and distal to as LGIB. The statistical analyses were conducted with SPSS 21.

Results: Ninety-nine patients with UGIB and 13 patients with LGIB were enrolled in the study. Median age of patients was 78.5 (min-max: 65–99) years, 45.5% were female. HT incidence was 41.7%, DM incidence was 18.7% and AF incidence was 15.2%. Most common diagnoses among patients with UGIB were, gastritis 27.7%, gastric ulcer 19.6%, esophageal varices 13.4%, duodenal ulcer 8.9% and malignancy 8.9%. Other rare causes were esophageal ulcer, Mallory-Weiss tear, angiodysplasia and combinations of other lesions, 1% to 3.6%. The most common causes of LGIB was diverticular bleeding accounting for 38.4% of the patients. On admission, the average hemoglobin concentration level was 9.7±7.7 gr/dl. Mean prothrombin time was 1.6±1.5. Median number of drugs was 5 (min-max: 0–10). Thirty five percent of the patients were on antiplatelet therapy and frequency of anticoagulant therapy was 25%. Among patients receiving anticoagulant therapy, 85% was taking a drug from novel oral anticoagulants (NOACs) and 15% was on warfarin therapy. Dual antiplatelet use ratio was 6.2%, while 4.5% of the patients were both using anticoagulant and antiplatelet therapy. Additionally, 6% of the patients were on NSAIDs drug therapy. Remarkably, antidepressants were the third most common drugs after antihypertensive and antidiabetic drugs. When we compared patients with UGIB and LGIB, neither antiplatelet nor anticoagulant usage was different (p=0.07, p>0.05, respectively). Also, number of drugs were similar between two groups (p>0.05).

Discussion: We showed that among the patients receiving anticoagulant therapy, NOACs usage was more common than warfarin therapy. Gastrointestinal bleeding is a common geriatric problem. NOACs are gaining popularity in the prevention of embolic stroke in non-valvular atrial fibrillation as well as in the prevention and treatment of venous thromboembolism. However, similar to traditional anticoagulants, NOACs have the side effects of bleeding, including GIB. Results from both randomized clinical trials and observational studies suggest that high-dose dabigatran (150 mg b. i. d), rivaroxaban and high-dose edoxaban (60 mg daily) are associated with a higher risk of GIB compared with warfarin. Other risk factors of NOACs-related GIB include concomitant use of ulcerogenic agents, older age, renal impairment, Helicobacter pylori infection and a past history of GIB.

Conclusion: GIB in the older adults is associated with greater morbidity and mortality. The major advantage of NOACs is that the drug does not require monitoring. However, considering the GIB rates, it is useful to think once again while using NOACs instead of warfarin.

Keywords: antithrombotic usage, gastrointestinal bleeding, older adults

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 088

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SERUM LITHIUM LEVELS AND TREATMENT EFFICACY OF GERIATRIC BIPOLAR DISORDER PATIENTS IN LITHIUM MAINTENANCE TREATMENT

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Introduction and Aim: "Lithium has been licensed for the long-term maintenance treatment of bipolar disorder (BD) for more than 45 years and is justifiably considered one of the first line options in major global treatment guidelines"such as the WFSBP guideline, the NICE guideline, the RANZCP guideline, the Dutch guideline, the BAP guideline, the CINP guideline and the CANMAT/ISBD guideline. However, lithium has a very low therapeutic index, there is a low ratio between the dose (or serum level) that is associated with toxicity, side effects and therapeutic effect. In this study our aim is to determine, how much of 65 years and older Bipolar Disorder patients receiving lithium maintenance treatment get treated in the therapeutic range and how much of them can not receive effective treatment. Hereby providing positive contributions to patients receiving effective treatment.

Material and Methods: Patients who were admitted to a Training and Research Hospital psychiatry outpatient clinic between the dates of 15.2.2019–15.2.2020, who were diagnosed with BD according to DSM-5 diagnostic criteria, were the sample of the study. Patients with comorbid mental retardation and dementia were not included in the study. Records of all patients were scanned retrospectively over the system for the last 5 years, and their serum lithium levels were examined with their sociodemographic data. Measurements that were initiating or concluding lithium therapy and need to be adjusted for dose (reduction) due to side effects were not included in the study.

Results: A total of 46 patients were included in our study, 12 women (26.09%) and 34 men (73.91%). The mean age of the patients was 67.39 (min: 65, max: 78), and the mean serum lithium levels were determined as 0.66 mmol/L (min: 0, max: 3). The average time between the polyclinic date when the patient was included in the study and the last polyclinic date on which the lithium serum level was checked was 7.27 months (min: 0, max: 55). When the system records of 46 patients for the last 5 years were examined, a total of 134 serum lithium level results were obtained. An average of 2.91 (min: 1, max: 10) results were determined in the last 5 years per patient with BD. When the serum lithium level results are examined: 22.39% (N=30) below 0.40 mmol/L, 26.86% (N=36) 0.40–0.60 mmol/L range, 16.42% (N=22) is in the range of 0.61–0.80 mmol/L and 34.33% (N=46) is above 0.8 mmol/L. Delphi survey recommend that "The standard serum level in the maintenance treatment of Bipolar Disorder for the elderly patients should be 0.40–0.60 mmol/L. with the option to go to maximally 0.70 or 0.80 mmol/L at ages 65–79 years, and to maximally 0.70 mmol/L over age 80 years. Levels below 0.40 mmol/L are considered ineffective."In the maintenance treatment of BD, if the recommended therapeutic range for patients 65 years and older is considered to be "0.40–0.80"mmol/L; 43.28% (N=58) of lithium serum level results were within the recommended range, while 56.72% (N=76) of the results were determined outside of the therapeutic range. In the study, it was determined that one fifth of lithium serum level results were below 0.40 mmol/L. It was stated that "It is not reasonable to prescribe lithium at levels below 0.40 mmol/L in terms of treatment efficacy."Although a considerable portion of patients seem to be receiving treatment, they were not actually able to receive effective treatment. In additionally it was also stated in the Delphi consensus that "There is no benefit other than the treatment of acute manic episodes, exceeding 0.80 mmol/L serum lithium levels for patients aged 65 and over."Approximately one third of the results were determined to be above 0.80 mmol/L. It was posed an additional risk in terms of lithium toxicity and side effects, especially in the geriatric BD patients. It has been determined that 30.43% of the patients in the study (N=14), the lithium dose was reduced due to side effects (Tremor, sedation… etc). It was also determined that two patients (4.34%) were treated in the intensive care unit due to lithium toxicity.

Conclusion: As a result, it was determined that more than half of the serum lithium level results in the study were in the range not suitable for the therapeutic effect. In order to prescribe lithium in patients over the age of 65, by making serum lithium level control mandatory every six months, it will be possible to contribute receiving the effective treatment. Just like hemogram control is mandatory to be able to prescribe clozapine, much more geriatric Bipolar Disorder patients can be treated in the therapeutic range with serum lithium levels to be checked every six months.

Keywords: Keywords: Bipolar disorder, geriatrics, lithium, maintenance treatment, serum level, treatment efficacy

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 089

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Publication Start Date: *2020–10–18 10:15:00*
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EXAMINING THE DISTRIBUTION OF PATIENTS OVER 65 YEARS OF AGE WHO APPLIED TO THE INTERNAL MEDICINE CLINIC

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Background: As a result of the recent developments, the life expectancy has increased due to the ease of access to health services and the increase in the quality of life (1). The burden of the increasing number of hospital admissions and hospitalizations of patients over the age of 65, which is called the geriatric population, has become popular (2). Due to the increasing health costs, it should be evaluated whether elderly patients need long-term care after hospital admissions (3). As it is known, about ten percent of people over 65 years old apply to the hospital once a year (4). The combination of morbidities and geriatric conditions of these patients is an important criterion for hospitalization, and the patients who develop secondary cognitive and functional decline affects patients. The aim of this study is to investigate the number of patients over 65 years old who applied

to our internal medicine clinics for one year and to evaluate the demographic structure of these patients

Material and Methods: This retrospective study was conducted between April 2019 and April 2020, in an 1115-bed tertiary training hospital in Eskişehir province. The patients were selected from those who applied to internal medicine and internal medicine subspecialty outpatient clinics and clinics. All patients aged 65 and over who used at least one drug were included. Patients transferred to another unit or hospital and discharged or deceased were excluded. The demographical data, medical histories, and the reasons for admission of the patients were obtained from the electronic files.

Results: There were 17957 participants enrolled in the study. The mean age was 73 years with a range of 65–114 years and 62% were women. 56% of the elderly individuals reported having attended one and the average length of hospitalization for all admissions is 6.14 days in the last 12 months. Thirty-two percent of patients readmitted to the hospital within 1 year. While 4094 of the participants in the study applied only for examination and prescription, 8449 of them applied for a medication report renewal. The most common diagnosis group in the study was diabetes. When classified according to the ICD-10 (International Classification of Diseases, 10th Revision) code, 80 percent of the patients had diabetes, 65 percent hypertension, 45 percent COPD, and 15 percent cerebrovascular disease. Nine of the patients were diagnosed with delirium. In our study, 93% of all patient admissions were to the internal medicine polyclinics, and only 0.6% were to the emergency service. We found that the number of prescribed drugs per admission increased with age (p=0.003, R=0.060). Our findings also showed we prescribed 3.25 drugs per admission to internal medicine polyclinics compare to 0.77 drugs per admission to geriatric polyclinics.

Conclusion: To our knowledge, this is one of the largest studies evaluating the distribution of geriatric patients' admissions. In our study, the differences in patients over 65 years of age who applied to different branches were revealed. Hospital readmissions of patients over the age of 65 and polyclinic practices that cause polypharmacy, which is increasing in the world as in our country, cause an increase in health costs. In our study, the differences in patients over 65 years of age who applied to different branches were revealed. Based on these findings, we recommend that the establishment and increase of geriatric medicine units in medical centers will contribute to preventing over-prescription and improved financial outcomes.

Keywords: geriatry, hospitalization, elderly, admission, polypharmacy

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 090

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SOCIOECONOMIC AND CULTURAL FACTORS AS PREDICTORS OF FACIAL SKIN WRINKLING IN ISPARTA MENOPAUSE AND HEALTH STUDY

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Background: Socioeconomic (SE) factors are known to be strong determinants of health and successful aging with higher SE status being linked to better outcomes. However there is limited information on the contribution of specific cultural and SE factors to facial skin aging in Turkish women.

Objectives: To evaluate the socioeconomic and cultural determinants of facial skin wrinkling in Isparta Menopause and Health Study (IMH) Study.

Methods: Self-reported information on SE and cultural factors were derived by cognitive interviewing of participants of the cross-sectional IMH Study (2006–2008). The interviews were performed by 2 trained nurses followed with a debriefing session by the principal investigator. SE/cultural factors assessed included monthly family income, level of education and lifetime use of headscarf. Facial wrinkling was assessed with the photographic Lemperle Wrinkle Score (LWS). Association between LWS and predictor variables was analysed with ordinal logistic regression. Multivariate analysis was adjusted for interviewer effect, age, solar exposure related, health related and reproductive factors.

Results: N=1106 women (aged 44–61) were evaluated. All three SE/cultural factors were found to be significant predictors of facial wrinkling in both age and interviewer (partially) adjusted and multivariate (fully) adjusted analysis (Table). In partially adjusted analysis, greater education level and greater monthly income appeared to be correlated with less facial wrinkling with a significant linear trend. However in fully adjusted analysis, the linear trend was non-significant with specific categories standing out. For instance those with <5 years of schooling seemed to fare best whereas those with 13–14 years of schooling fared worst compared to illiterate, in terms of facial wrinkling. With monthly income, those with an income of 350–700 USD had worse whereas those with an income of >1400 USD had better LWS compared to those with <350 USD monthly income. In contrast, lifetime use of headscarf seemed to have a consistent linear association with facial wrinkling such that those who reported greater use of lifetime headscarf had worse LWS status in both partially and fully adjusted analysis (greater than half of adulthood >half of adulthood >less than half of adulthood).

Conclusions: To our knowledge, the detrimental influence of wearing headscarf on facial wrinkles is reported for the first time. The effect of wearing headscarf on skin aging may be mediated through lower levels of vitamin D observed in veiled women (Erkal 2006, Güllü 1998). On the other hand, multiple mechanisms likely explain impacts of SE and other social factors on health; and the effects of any given social factor are often contingent on a host of other factors (Braveman 2014). The reasons for the specific effects of SE factors found in our study are likely to be specific to the living conditions of this population.

Keywords: skin aging, skin wrinkling, socioeconomic status, cultural factors, headscarf

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Table 1. Age & interviewer adjusted and multivariate* adjusted ORs (95% CL) predicting greater LWS score status for socioeconomic and cultural factors (N=1106)

Category	*No (%) of participants*	*Age and interviewer adjusted OR (95% CLs)*	*P*	*P for trend*	*Multivariate* adjusted OR (95% CLs)*	*P*	*P for trend*
Lifetime use of headscarf							
<half of adulthood	447 (40)	1	<0.0001	<0.0001	1	0.0564	0.0204
Half of adulthood	46 (4)	1.49 (0.84–2.66)			1.54 (0.81–2.93)		
>half of adulthood	613 (55)	2.06 (1.63–2.61)			1.62 (1.08–2.43)		
Monthly family income (USD)							
<350	146 (13)	1	<0.0001	<0.0001	1	0.0174	0.1098
350–700	441 (40)	1.34 (0.93–1.91)			1.45 (0.97–2.17)		
700–1400	340 (31)	0.82 (0.57–1.18)			1.12 (0.70–1.78)		
>1400	179 (16)	0.57 (0.38–0.87)			0.79 (0.47–1.34)		
Education level							
Illiterate	42 (4)	1	0.0010	<0.0001	1	0.0458	0.0622
<5 years	49 (4)	0.41 (0.18–0.92)			0.53 (0.23–1.23)		
Elementary school (5 yrs)	538 (49)	0.52 (0.27–0.98)			0.70 (0.35–1.40)		
Secondary school (8–9 yrs)	66 (6)	0.43 (0.20–0.94)			0.75 (0.32–1.78)		
High school (11–12 years)	179 (16)	0.38 (0.19–0.75)			1.12 (0.50–2.53)		
Undergraduate (13–14 yrs)	136 (12)	0.38 (0.19–0.76)			1.61 (0.50–2.53)		
Graduate (≥15 years)	96 (9)	0.24 (0.11–0.49)			0.99 (0.40–2.41)		

OR: Odds ratio, CL: Confidence limit, LWS: Lemperle Wrinkle Score, USD: United States Dollars. * Multivariate OR derived from comprehensive model which includes interviewer effect, age, solar exposure related, health related and reproductive factors.

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 091

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GTS-21, AN ALPHA-7 NICOTINIC RECEPTOR AGONIST, AMELIORATES CONTRAST-INDUCED NEPHROPATHY IN RATS

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Background: The use of contrast agents and the incidence of contrast-induced nephropathy (CIN) increase in today's medicine, there is still no proven pharmacological therapy to prevent renal damage. Mechanisms of CIN include renal vasoconstriction, medullar hypoxia, endothelial injury, oxidative stress and direct tubular toxicity of contrast agent due to inflammatory effect. GTS-21 is a selective alpha-7 nicotinic receptor (α7nAChR) agonist with anti-apoptotic, anti-inflammatory and anti-oxidative properties as shown in many studies. We aimed to demonstrate the effects of GTS-21 on CIN.

Methods: Male Sprague-Dawley rats 4 groups were included within the scope of our study: saline-control (SL, n=8), GTS-21-control (n=8), contrast (n=14) and GTS-21+contrast (n=10). GTS-21 were administrated for 3 days, 4 mg/kg twice a day intraperitoneally. CIN was established by intravenously injecting indomethacin (10 mg/kg), L-NAME (10 mg/kg) and a high-osmolar contrast agent (Urografin 76%, 6 ml/kg) at 25th h of the experiment. 7 rats that died after contrast administration in 48 h were included in survival analysis. Renal functions in the serums; histopathological investigations, cytokine levels in the tissue specimens with PCR and oxidative stress parameters were evaluated. Data were analyzed using ANOVA and Student's t-test.

Results: Serum creatinine and BUN levels increased in the contrast group compared to controls ($p<0.05$ for both), which decreased with the effect of GTS-21. Histopathological injury was significantly increased in contrast group compared to SL group ($p<0.001$), the injury was decreased with the addition of GTS-21 to the contrast group ($p<0.001$). IL-6 expression in the two contrast groups demonstrated a 6 to 9 fold increase compared to the SL group ($p<0.01$ and $p<0.05$, respectively), and IL-6 expression was reduced by about 1.4-fold with the addition of GTS-21 to contrast. IL-1β expression was similar between all groups. TGF-β expression was significantly increased in GTS-21+contrast group compared to the contrast group ($p<0.01$). Although myeloperoxidase value increased in contrast group compared to SL group and decreased in GTS-21+contrast group, the groups were statistically similar. While malondialdehyde increased in contrast and GTS-21+contrast groups compared to SL group ($p<0.001$ for both), it was partially decreased in the GTS-21+contrast. Glutathione value increased in GTS-21+contrast group compared to SL group ($p<0.05$).

Conclusions: In CIN model, GTS-21 provides significant improvement in histological parameters and partial improvement in renal function. This improvement is achieved through anti-oxidant and anti-inflammatory mechanisms.

Keywords: contrast-induced nephropathy, GTS-21, alpha 7 nicotinic acetylcholine receptor agonist, cholinergic anti-inflammatory pathway

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 092

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FACIAL WRINKLING AND REPRODUCTIVE FACTORS IN ISPARTA MENOPAUSE AND HEALTH STUDY

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Background: Reproductive factors appear to be strong determinants of facial skin wrinkling in women with a prominent detrimental effect of menopause. However influence of other reproductive factors is less explored.

Objectives: To evaluate the reproductive determinants of facial skin wrinkling in Isparta Menopause and Health (IMH) Study.

Methods: Self-reported information on reproductive factors were derived by cognitive interviewing of participants of the cross-sectional IMH Study (2006–2008). The interviews were performed by 2 trained nurses followed with a debriefing session by the principal investigator. Reproductive factors assessed included age at menarche, menopausal status, time since menopause (post-menopausal years), parity, duration of breastfeeding, number of months on oral contraceptives and duration of postmenopausal estrogen and/or progestogen (E/P) use. Facial wrinkling was assessed with the photographic Lemperle Wrinkle Score (LWS). Association between LWS and predictor variables was analysed with ordinal logistic regression. Multivariate analysis was adjusted for interviewer effect, age, solar exposure related, health related and socioeconomic/cultural factors.

Results: N=1106 women (aged 44–61) were evaluated. Menopause and post-menopausal years were found to be significant predictors of facial wrinkling in both age and interviewer (partially) adjusted and multivariate (fully) adjusted analysis (Table). Higher parity is associated with increased odds of worse LWS status in partially adjusted analysis. Parity is a significant factor only if assumed to have a linear effect in fully adjusted analysis. Though not significant in partially adjusted analysis, being in the higher category of duration of breastfeeding is associated with decreased odds of worse LWS status in fully adjusted analysis. In postmenopausal women, n=409 had never used postmenopausal E/P, n=49 used for <5 months and n=49 used for ≥5 months. In the multivariate analysis for postmenopausal group (n=507) (model not shown), influence of duration of postmenopausal E/P use did not reach significance (p=0.057) and the odds ratio (OR) (95% CI) of being in a worse category of LWS is 1.79 (0.93–3.42) for those in the highest category of postmenopausal E/P use (>=5 months) compared to non-users. The respective OR is 0.64 (95% CI: 0.35–1.18) for those in middle category (<5 months of hormone use) compared to non-users.

Conclusions: Of the reproductive factors, menopause has a consistent adverse effect on facial wrinkling with the detriment increasing in proportion to postmenopausal years. Though parity appears to increase facial wrinkling, breastfeeding appears to be protective. Our findings on duration of breastfeeding are novel and may explain previous controversial findings on the influence of parity on skin aging (Youn 2003, Lucas 2009, Weiler 2006).

Keywords: skin aging, skin wrinkling, reproductive factors, parity, breastfeeding duration

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Table 1. Age & interviewer adjusted and multivariate* adjusted ORs (95% CL) predicting greater LWS score status for socioeconomic and cultural factors (N=1106)

Category	*No (%) of participants*	*Age and interviewer adjusted OR (95% CLs)*	*P*	*P for trend*	*Multivariate* adjusted OR (95% CLs)*	*P*	*P for trend*
Menopausal status and post-menopausal years							
Premenopausal	599 (54)	1	0.0081	0.0021	1	0.0164	0.0049
Post 1–5 years	276 (25)	1.26 (0.93–1.72)			1.43 (1.03–2.00)		
Post 6–24 years	231 (21)	1.77 (1.24–2.54)			1.75 (1.17–2.61)		
Age at menarche (years)							
<13	241 (22)	1	0.3214	0.8528	1	0.5413	0.7126
13	322 (29)	0.92 (0.67–1.26)			0.88 (0.62–1.24)		
14	318 (29)	0.79 (0.58–1.09)			0.79 (0.56–1.13)		
≥15	225 (20)	1.042 (0.74–1.47)			0.97 (0.67–1.42)		
Parity							
0	33 (3)	1	0.0051	0.0002	1	0.1818	0.0200
1	56 (5)	0.74 (0.33–1.65)			0.70 (0.29–1.68)		
2	517 (47)	1.01 (0.52–1.95)			1.13 (0.54–2.38)		
3	332 (30)	1.39 (0.71–2.70)			1.43 (0.66–3.12)		
4	115 (10)	1.51 (0.73–3.12)			1.51 (0.64–3.56)		
5–8	53 (5)	2.27 (0.98–5.23)			2.01 (0.78–5.49)		
Duration of breastfeeding (months)							
0–19	364 (33)	1	0.0993	0.1205	1	0.0181	0.0103
20–36	427 (39)	0.95 (0.73–1.23)			0.67 (0.49–0.91)		
37–234	315 (28)	1.27 (0.95–1.69)			0.61 (0.41–0.90)		
Number of months on oral contraceptives							
0	732 (66)	1	0.7781	0.4852	1	0.7577	0.4614
1–7	189 (17)	0.96 (0.71–1.30)			0.93 (0.67–1.28)		
8–300	185 (17)	0.90 (0.66–1.22)			0.89 (0.64–1.24)		

OR: Odds ratio, CL: Confidence limit, LWS: Lemperle Wrinkle Score. * Multivariate OR derived from comprehensive model which includes interviewer effect, age, solar exposure related, health related and socioeconomic/cultural factors.

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 094

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RELEVANCE OF SELF REPORTED QUALITY OF LIFE WITH GERIATRIC SYNDROMES

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Background: The EuroQol five dimensinal questionnare (EQ-5D) is an instrument which assesses the generic quality of life that has been developed and widely used in Europe. The descriptive system EQ-5D is a preferential health-related quality of life (HRQL) measure with one question for each of the five dimensions which includes mobility, selfcare, usual activities, pain/discomfort, and anxiety/depression. EQ-VAS (visual analogue score) is an important and under-used element of the EQ-5D. The EQ-VAS provides important, complementary information on patients' views about their own health. Quality of life in geriatric syndromes is an important criterion in the treatment of patients and in evaluating optimal medical care. We aimed to assess the relationship between self-reported quality of life (EQ-5 VAS) and falls, sleep disorders, urinary incontinance, malnutrition, frailty and chronic pain.

Methods: 277 individuals ≥65 years of age admitted to Istanbul Medical School Geriatrics Outpatient Clinic for the first time between a period from August 2015 to November 2016 and who haven't had cognitive impairment to provide information about their health. We used The International Association of Nutrition and Aging's FRAIL scale. Patients were asked about their falls for the last year, urinary incontinence, sleep disorders. Patients assessed about their nutritional status by Mini Nutritional Assessment (MNA). Univariate and multivariate linear regression analysis were performed to investigate the association between quality of life and geriatric syndromes.

Results: 277 patients were analyzed with a comprehensive geriatric assessment. The sample was composed of women 65% and men 35% with mean age of 73.7±6.48 years. The median of the EQ-5D VAS is 70 (10–100). In univariate analysis EQ-5D VAS was found associated with urinary incotinence ($p<0.05$), frailty ($p<0.05$), malnutrition ($p=0.006$), chronic pain ($p<0.05$), sleep disorders ($p=0.002$). There is no difference between male and female ($p=0.38$). In multivariate analysis dementia was found independently assosiated with urinary incontinence ($p=0.014$), chronic pain ($p=0.006$), frailty ($p=0.004$).

Conclusions: Geriatric syndromes, especially frailty and chronic pain, were common among older adults. A greater number of geriatric syndromes were associated with poorer quality of life. Urinary incontinence also have a psychological impact and substantially reduce patients' quality of life. There is a decline in quality of their personal, social, and professional life. So clinicans should be aware of geriatric syndromes and should not forget the effects on quality of life.

Keywords: quality of life, malnutrition, urinary incontinence, frailty

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 095

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PREVALANCE OF GERIATRIC SYNDROMES AMONG OUTPATIENT CLINICS PATIENTS OVER 60 YEARS

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Aim: The aim of this study is to show the frequency of geriatric syndromes such as malnutrition, falls, depression, sleep problems, urinary incontinence, constipation, frailty, in patients over the age of 60 who applied to our outpatient clinic.

Methods: 376 patients who admitted to the geriatric outpatient clinic were included to the study. The mean age of the patients was 74±6.6. The demographic characteristics of the patients, whether they had fallen within the last year, constipation, urinary incontinence, presence of sleep problem a are retrospectively evaluated. Mini-nutritional assessment (MNA), frail tests were documented as a part of comprehensive geriatric assessment. Malnutrition was considered in patients who received 7 points or less in the short form of MNA. In addition to 1 point and above with frail test was considered fragile and pre-fragile. Patients were evaluated for depression with the long form of the geriatric depression scala. Over 10 were defined as depression and possible depression.

Results:% 29.5 of the participants were male (n=111) and% 70 were female (n=265). The frequency of malnutrition% 3.2 (n=12), urinary incontinence% 47.9 (n=180), falls% 41.4 (n=155), frailty% 63.6 (n=239), sleep problem% 42.5 (n=200) constipaiton% 29.4 (n=110) and geriatric depression% 47.1 (n=177).

Conclusion: Geriatric syndromes are frequently encountered in elderly people, manifested by atypical symptoms and are not fully explained by the definition of disease. It is important for these syndromes to be known not only by geriatricians, but also to all practitioners who are frequently encountered with elderly patients to take preventive measures and to determine treatment approach.

Keywords: geriatric syndromes, malnutrition, frailty, depression

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 096

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Publication End Date: *2020–10–18 11:03:00*

DETERMINATION OF OLDER ADULTS REQUIRING COMPREHENSIVE GERIATRIC ASSESSMENT IN A FAMILY HEALTH CENTER BY G8 QUESTIONNAIRE

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Introduction: Comprehensive geriatric assessment (CGA) is a method that used in daily practice by geriatricians all over the world and containing some clinical evaluations including nutritional, cognitive and mood status, medications, activities of daily living, physical performance of the older adults. However, it is a very time-consuming evaluation that making it not suitable for other specialists. G8 questionnaire has been developed for an oncologist for the first time to detect the older adults who required CGA with a simple and easy test. Further studies have shown it has been used reliably for other study populations rather than the oncology department. We aimed in this study to show the frequency of the older adults that required CGA in a family health center by G8 questionnaire.

Methods: This study was conducted in a family health center in Konya. Preliminary data of an ongoing research is presented in this study. Totally, 271 participants were included. All participants were evaluated by the G8 questionnaire. This questionnaire includes eight domains; appetite, weight loss, mobility, psychological problems, body mass index, medication number, perception of health status and age. The total score of this questionnaire ranges from 0–17 and ≤14 indicates further evaluation with CGA of the patients is needed. In addition, socio-demographic characteristics, co-morbidities, and medications were recorded. Age of the participants were divided into three groups as group 1 (65–74 years) (n=135, 49.8%), group 2 (75–84 years) (n=101, 37.3%) and group 3 (85 years and over) (n=35, 12.9%).

Results: The median age was 75 years (min-max: 65–95) and 55.4 percent was female. The median G8 score was 14 (min-max: 7–17). The frequency of participants requiring CGA detected by the G8 questionnaire was 52.4 percent (n=142). Chronic renal failure, Alzheimer's disease, depression, anxiety, and malignancy frequencies were more common in participants with G8 score ≤14 compared to without (all had $p<0.05$). There was a statistically and significantly trend between median G8 scores of the group 1 [15, min-max: 8–17], group 2 [14, min-max: 7–17] and group 3 [12, min-max: 7–15] ($p<0.001$).

Conclusion: The findings of this study have demonstrated that the majority of the participants followed up in a family health center might be required for evaluation with CGA.

Keywords: comprehensive geriatric assessment, family medicine, G8 questionnaire

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 097

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Publication End Date: *2020–10–18 11:09:00*

POTENTIALLY INAPPROPRIATE MEDICATIONS AND TYROSINE KINASE INHIBITORS-DRUG INTERACTIONS IN GERIATRIC PATIENTS

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Objective: Polypharmacy and inappropriate medication use is an important problem in geriatric patients, as a consequence, adverse drug reactions are inevitable. This makes treatment challenging. Tyrosine kinase inhibitors (TKIs) are frequently used in oncology practice for older patients with malignancies. This study aims to show the level of drug-drug interactions with TKIs determined by "*Lexicomp® Drug Interactions*" program (1), and to investigate the relationship between the TKIs-drug interactions and the prevalence of potentially inappropriate drug use according to The Screening Tool of Older Person's Prescriptions (STOPP) criteria (2).

Patients and Methods: Data from 72 geriatric patients with solid organ malignancies on TKIs were retrospectively evaluated between January 2007 and December 2017. Additional drugs taken by patients simultaneously with TKIs were evaluated according to the STOPP criteria and potentially inappropriate medications (PIMs) were detected. Polypharmacy was assessed as 5 and above drug use. The drug-drug interaction with TKIs was determined using the "Lexicomp® Drug Interactions, App Version 1.1" program.

Results: Out of 73 patients, 40 (55.6%) were males and 32 (44.4%) were females. The median age was 71 (65–87). The majority of patients had renal cell cancer 24 (33.3%) and GIST 20 (27.8%), and 11 (15.3%) patients were presented with lung cancer. Overall 19 (26.4%) patients were on imatinib treatment, 14 (19.4%) were on sunitinib treatment, 11 (15.3%) were on pazopanib treatment, 10 (13.9%) were on erlotinib treatment, and the remaining were on other TKIs. While polypharmacy rate was 41.7% (n=30), PIMs rate was 65.3% (n=47). The most commonly used concomitant drugs were proton pump inhibitors (PPI) (34.7%) and NSAIDs (29.2%). The "*Lexicomp® Drug Interactions*"program detected TKIs-drug interactions were compared with PIMs detected with STOPP criteria. PIMs were found to be correlated with TKIs-drug interactions (Spearman's $p=0.002$). In univariate analysis, polypharmacy was associated with increased risk of both PIMS and TKIs-drug interactions ($p<0.001$). There was also a significant relationship between polypharmacy, PIMs and TKI efficacy decrease, ($p=0.013$ and $p=0.042$ respectively).

Conclusion: Drug-drug interactions are highly prevalent among geriatric patients. In oncology practice, older patients should be cared more cautiously in this regard. This study is significant in terms of revealing the importance of detecting PIMs regularly to minimize drug-drug interactions in oncology practice.

Keywords: potentially inappropriate medications, drug interactions, polypharmacy, STOPP criteria, geriatrics.

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 098

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Publication End Date: *2020–10–18 15:06:00*

GERIATRIC SYNDROME PREVALENCE AMONG NONAGENARIANS: A SINGLE CENTER OBSERVATION

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Objective: The most common condition in the aging population is comorbidity, which is a combination of more than one chronic disease or condition[1]. Contrary to the traditional view that specific symptoms are characteristic of a single disease, the coexistence of multiple diseases and other age-related conditions in elderly individuals leads to what is defined as geriatric syndromes[2]. Geriatric syndromes are quite common in the elderly population and are associated with adverse health status, and increased cost[3]. It is known that the frequency of comorbidity and geriatric syndrome increases especially in the elderly[4]. However, in the oldest age group, which is showing the fastest increase in population, these rates are not clearly known. The aim of this study is to shed light on the management of elderly patients by identifying geriatric syndromes and comorbidity prevalence, as well as chronic diseases and common geriatric syndromes, in patients 90 years of age and older who applied to the geriatric outpatient clinic.

Method: Data of patients 90 years and older who applied to the geriatric outpatient clinic between November 2016 and January 2020 were retrospectively analyzed. The drugs used by the patients with their demographic characteristics such as age, gender, chronic diseases and geriatric syndromes were gathered. The drugs used were also obtained from the hospital-registered files and through the E-Pulse health system. DM, HT, CVD, CVO, COPD, CKD were recorded as chronic diseases. Dementia, depression, fall, incontinence, malnutrition, sleep disorders, polypharmacy and fall were recorded as geriatric syndrome. The modified Charlson comorbidity index was used to calculate the comorbidity index.

Results: The number of patients 90 years and older who applied to the Geriatric outpatient clinic was 235. The mean age of the patients left was 93.2. HT was present in 70.6% of patients, CVD in 43.4%, DM was found in 20%. When considering the frequency of geriatric syndromes incontinence was present in 68.5% of patients, polypharmacy in 59.6%, depression in 43.5%, sleep disorder in 41.5%, dementia in 32.8%, fall in 26%, malnutrition in 24.7%, MCI in 23% and delirium was observed in 9.4%. When patients with DM were examined, polypharmacy was the most common geriatric syndrome with a rate of 76.6%. This was followed by incontinence with 76.6% and depression with sleep disturbance, both at 44.7%. The most common geriatric syndrome in patients with HT was again polypharmacy with a rate of 64.5%. This was followed by depression with 44.6% and sleep disorders with 43.4%. In patients with CVD, polypharmacy was present at a rate of 72.5%, incontinence at 68.6% and depression at 41.4%.

Conclusion: We found the leading geriatric syndrome was polypharmacy, followed by depression and incontinence, among nonagenarians with any chronic disease. This study implicates the need to review carefully and regularly the medication management, which is a dynamic and complex process in that vulnerable group.

Keywords: geriatric syndrome, the polypharmacy, nonagenarians, comorbidity

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OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 099

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Publication Start Date: *2020–10–18 15:06:00*
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WHICH MALNUTRITION TEST IS MORE USEFUL IN POLYPHARMACY STUDIES?

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Introduction: Frailty and malnutrition are prevalent among older adults and may be associated with morbidity and mortality. The aim of this study was to investigate relationship between malnutrition and drug use by evaluating number of medications prescribed (polypharmacy) in people aged 65 and over. We also aimed to evaluate which malnutrition test predicted polypharmacy more accurately.

Material and Methods: This cross-sectional study was conducted for a period of 4 months from September 2019 to January 2020. Patients applied to outpatient clinic of geriatrics were taken in the study. Malnutrition was assessed by mini nutritional assessment short form (MNA-SF), long form (MNA-LF), Global Leadership Initiative on Malnutrition criteria (GLIM) and geriatric nutrition risk index (GNRI). Polypharmacy was assessed from the database of Social Security System. Patients were evaluated for inappropriate medication use in the light of TIME (Turkish Inappropriate Medication Use in the Elderly) criteria. Data analysis was done by using SPSS (Statistical Package for the Social Sciences) version 22. Chi square test, correlation analysis and linear regression model were used to evaluate relationship between parameters.

Results: The study population was composed of 57 women and 43 men, of mean age 72.8 +/– 7.4 years. Polypharmacy (5 to 9 drugs) and excessive polypharmacy (≥10 drugs) were reported in 56 and 14% of the study population, respectively. Polypharmacy was revealed to be related with MNA-SF, MNA-LF and GLIM scores. But no relationship was found between polypharmacy and GNRI. Results were summarized in table-1. Nutritional status of patients was shown in table-2. We found that MNA-LF was independently associated with polypharmacy in linear regression analysis ($r^2=0.079$, $p=0.005$). We demonstrated a cut-off value of 5.5 of drug number for carrying risk of malnutrition according to MNA in ROC (Receiver operating characteristic) curve (sensitivity 76% ; specifity 52% ; CI=95%, $p=0.031$) (figure-1). Frequency of inappropriate medicine use was 38%. There was no relation between inappropriate drug use and malnutrition. Frequencies of drugs used inappropriately were depicted in table-3.

Discussion: In this study, we revealed that malnutrition was related with polypharmacy. Many studies were done in order to elucidate the relationship between polypharmacy and malnutriton. In many of them MNA-SF and MNA-LF was used for diagnosing malnutrition

(1). But, our study is the first that done with GLIM criteria. We designated that only MNA-LF influenced polypharmacy independently. That finding made us thought that MNA-LF was more useful to define relationship with polypharmacy. Polypharmacy is defined as number of used drugs >4 but the definition isn't unquestioned (2). Values between 3 and 6 were being suggested (2). We found a cut off value as 5.5. Prospective studies in order to evaluate effect of decreasing the number of used drugs on malnutrition will be useful.

Keywords: malnutrition, polypharmacy

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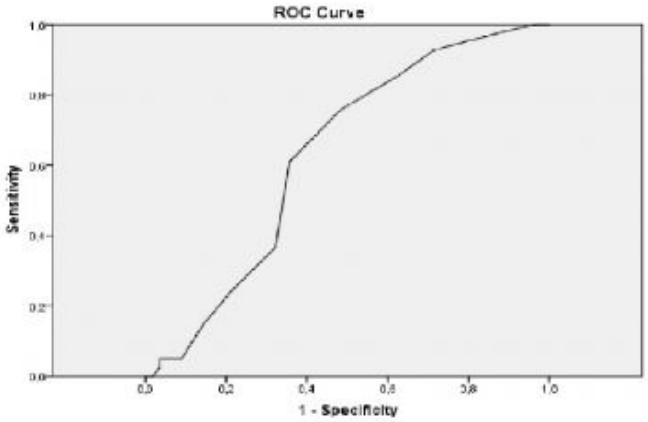

Figure 1. Cut-off value of number of medicine for development of malnutrition

Table 1. Relationship between malnutrition and polypharmacy

	Number of medicine	*Presence of polypharmacy*
MNA-SF	p=0.01, r=-0.224*	p=0.05, r=-0.201*
MNA-LF	p=0.004, r=-0.269**	p=0.023, r=-0.263**
GLIM	p=0.007, r=0.255*	p=0.047, r=0.215*
GNRI	p=0.309	p=0.547

Table 2. Nutritional status of patients

	MNA-SF (n=%)	*MNA-LF (n=%)*	*GLIM (n=%)*	*GNRI (n=%)*
Normal	39	48	50	87
Risk of malnutrition	45	43	28 (moderate malnutrition)	9
Malnutrition	16	9	22 (severe malnutrition)	4

Table 3. Frequencies of drugs used inappropriately

Drug name	*Number of patients' used (n)*	*percent (%)*
Piracetam	15	40
Myorelaxant	13	34
Proton pump inhibitor	4	10
Digoxin	1	2.66
Anticholinergic	1	2.66
Paroxetin	1	2.66
More than 1 drug	3	8

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

SS – 100

Publication Hall: *Salon B*
Publication Start Date: *2020–10–18 15:12:00*
Publication End Date: *2020–10–18 15:18:00*

WHICH FRAILTY MEASUREMENT TOOL IS MORE EFFECTIVE IN POLYPHARMACY STUDIES?

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Introduction: Frailty is a common geriatric syndrome that carries an increased risk for poor health outcomes. Aim of this study is to investigate relationship between frailty and polypharmacy in people aged 65 and over. Also we aimed to evaluate which frailty criteria predicted polypharmacy more accurately.

Material and Methods: This cross-sectional study was conducted for a period of 4 months from September 2019 to January 2020. Patients applied to outpatient clinic of geriatrics were taken in the study. Frailty was assessed by using Fried and SOF (Study of Osteoporotic Fractures) criteria. Polypharmacy was assessed from the database of Social Security System. Patients were evaluated for inappropriate medication use in the light of TIME (Turkish Inappropriate Medication Use in the Elderly) criteria. Comprehensive geriatric assessments, SARC-F, hand grip test, bioimpedence analysis, 4-meter walking speed test and timed up and go test (TUG) were done to all patients. Sarcopenia was evaluated according to EWGSOP2 (European Working Group on Sarcopenia in Older People) criterion (1). Data analysis was done by using SPSS (Statistical Package for the Social Sciences) version 22.

Results: The study population was composed of 57 women and 43 men and the mean age was 72.8 +/– 7.4 years. Polypharmacy (5 to 9 drugs) and excessive polypharmacy (≥10 drugs) were reported in 56 and 14%, respectively. Polypharmacy was found to be related with both Fried and SOF scores. Polypharmacy was also associated with tinetti scores. Results were summarized in table-1. Patients' frailty status was depicted in table-2. We found that Fried score was associated with polypharmacy in regression analysis (r^2=0.166, p=0.031). We showed a cut-off value of 5.5 of drug number for being frail according to Fried scale in ROC (Receiver operating characteristic) curve (figure-1). Frequency of inappropriate medicine use was 38%. There was no relation between inappropriate drug use and frailty. Frequencies of drugs used inappropriately were depicted in table-3.

Discussion: In this study, we revealed that frailty was related with polypharmacy. Many studies were done in order to elucidate the relationship between polypharmacy and frailty. In many of the studies Fried criteria was used for diagnosing frailty (2). But, our study is the first that done with SOF criteria. We designated that only Fried criteria influenced polypharmacy independently. That finding made us thought that Fried criteria were more useful to define relationship with polypharmacy. Polypharmacy is defined as number of used drugs >4 but the definition isn't unquestioned (3). We found a cut-off value of 5.5 of drug number for carrying risk of frailty according to Fried criteria in ROC (Receiver operating characteristic) curve (sensitivity 72% ; specifity 51% ; CI=95%, p=0.001). Prospective studies in order to evaluate effect of decreasing the number of used drugs on frailty and balance will be useful.

Keywords: frailty, sarcopenia, polypharmacy

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Figure 1. Cut-off value of number of drugs for frailty.

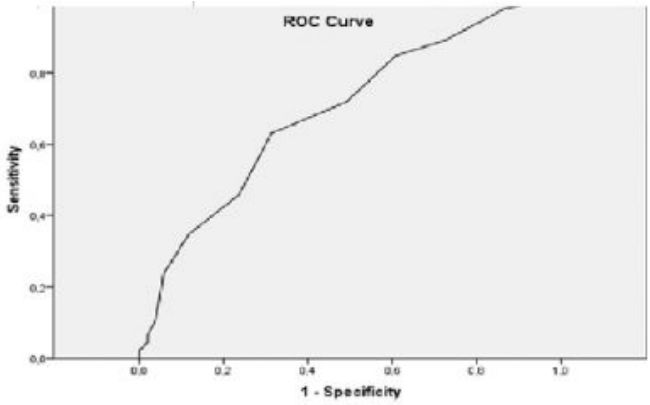

Table 1. Relationship between frailty, ADL, IADL, tinetti, sarcopenia and polypharmacy

	Number of drugs	*Presence of polypharmacy*
Fried criteria	p=0.00, r=0.384**	p=0.005, r=0.288**
SOF criteria	p=0.007, r=274**	p=0.011, r=0.260*
Katz Index of Independence in Activities of Daily Living (ADL)	p=0.081	p=0.501
The Lawton Instrumental Activities of Daily Living Scale (IADL)	p=0.301	p=0.343
Tinetti score	p=0.003, r=-0.304**	p=0.029, r=-0.223*
SARC-F	p=0.103	p=0.093
handgrip	p=0.086	p=0.014, r=-0.252*
Skeletal muscle mass index adjusted to height (SMMI)	p=0.387	p=0.450
Gait speed	p=0.108	p=0.346
Timed up and go test (TUG)	p=0.581	p=0.363

Table 2. Patients' frailty status

	Fried (n=%)	*SOF (n=%)*
Robust	5	20
Pre-frail	49	35
Frail	46	45

PHYSICAL ACTIVITY

SS – 101

Publication Hall: *Salon B*
Publication Start Date: *2020–10–18 15:18:00*
Publication End Date: *2020–10–18 15:24:00*

FACTORS ASSOCIATED WITH FUNCTIONALITY IN OLDER OLD

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Introduction: Functional impairment is common in older adults and disability significantly affects the quality of life of older people. We aimed to investigate the associatied factors with functionally in community dwelling oldest old.

Methods: Community-dwelling older adults aged ≥80 years admitted to a geriatric outpatient clinic were enrolled. Functionality was assessed with evaluation of activities of daily living (ADL) and instrumental activities of daily living (IADL) scales. Nutrition was assessed by mini-nutritional assessment (MNA-SF) test. The demographic characteristics of the patients, polypharmacy, comorbidities are evaluated. Frailty was screened by FRAIL test and depression was assessed by yesvage geriatric depression scale short form. Muscle strenght was assesed by measurement of hand grip strenght (HGS) with hydraulic hand dynamometer.

Results: We studied 474 patients ≥80 years of age admitted to our geriatrics outpatient clinics. % 37.1 of the participants were male (n=176) and% 62.9 were female (n=298). Mean age was 83.9 ± 3.5 years, BMI was 29.7±5.5 kg/m², number of drugs was 7±4. Median hand-grip strenght was 21 kg (6–40), ADL score was 6 (1–6), IADL score was 7 (1–8), MNA-SF was 12 (8–14), frailty score was 2 (0–5), EQ5D was 8 (5–12) and GDS-SF was 3 (0–14). Spearman's analysis revealed that, ADL scores were negatively correlated with BMI (p<0.045 r=-094), frailty (p<0.0001 r=– 0.372), GD-SF (p<0.0001 r=-0.351), number of drugs (p<0.004 r=-0.177), comorbidities (p<0.003) and positively correlated with hand-grip strenght (p<0.0001 r=0.283), MNA-SF (p<0.0001 r=0.285).

Conclusion: We observed that poor nutritional status, lower HGS, higher BMI, depression, and fraility were associated with lower functionality in ADL in the oldest old. Gender and age were not associated with functionality in ADL.

Keywords: disability, fraility, functionality

PHYSICAL ACTIVITY

SS – 102

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Publication Start Date: *2020–10–18 15:24:00*
Publication End Date: *2020–10–18 15:30:00*

ASSOCIATION OF HYPOMAGNESEMIA WITH GERIATRIC SYNDROMES AND MORTALITY

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Background: Hypomagnesemia is a common electrolyte imbalance. Despite the association with cardiovascular and neuromuscular functions have been well-described in the general population, impacts of hypomagnesemia on comprehensive geriatric assessment measures has not been studied in detail. In this study, we have eval-

uated association of hypomagnesemia with geriatric syndromes and mortality among subjects with an age of 65 years or more.

Methods: Electronic medical records of subjects who were evaluated in geriatrics clinic were reviewed retrospectively. Subjects who had a serum magnesium level of <1.6 mg/dL were included in the hypomagnesemia group. Exlusions were lack of magnesium measurements, lack of comprehensive geriatric evaluation, and hypermagnesemia (serum magnesium >2.3 mg/dL). Patients in hypomagnesemia and normomagnesemia groups were compared for clinical characteristics and geriatric syndromes (dementia, depression, dynapenia, urinary incontinence, polypharmacy, falls, frailty, malnutrition). Continuous variables are presented as median (range, minimum-maximum) due to non-normally distribution in the majority. Logistic regression analysis was performed for the association of hypomagnesemia with each of the syndromes. Geriatric syndromes which had significant association with hypomagnesemia (p-value of <0.05) were determined, and multivariate regression models were used in order to evaluate whether hypomagnesemia had an independent effect. Logistic regression models were used to assess independent predictors of mortality.

Results: Among the 1265 patients, 150 did not have a magnesium measurement, 134 did not have comprehensive geriatric assessment, and 93 had hypermagnesemia. Of the 888 patients included, 48 had hypomagnesemia (5.4%). Patients with hypomagnesemia were older, more commonly had diabetes mellitus and chronic kidney disease, exposed to higher number of drugs, and had lower median hemoglobin, serum vitamin B12 and folic acid levels (Table 1). Significant associations were observed between hypomagnesemia with dynapenia (grip strength of <16 kg in women, and <27 kg in men, according to hand dynamometer test) and geriatric depression (geriatric depression scale of ≥5 points) in univariate analysis. In the entire cohort, older age, male sex, shorter duration of education, and lower body-mass index, hemoglobin, and lower glomerular filtration rate were significantly associated with dynapenia in the univariate analysis along with hypomagnesemia. In the multivariate regression model, older age (per year, OR 1.08, 95% confidence interval [CI] 1.06–1.12, p<0.001) and hypomagnesemia (per 1 mg/dL, OR 2.27, 95% CI 0.97–5.29, p=0.057) were associated with and increased risk of dynapenia, while female sex (OR 0.26, 95% CI 0.16–0.44, p<0.001), longer duration of education (per year, OR 0.93, 95% CI 0.87–0.99, p=0.018), and a higher hemoglobin level (per 1 g/dL, OR 0.73, 95% CI 0.64–0.82, p<0.001) were associated with a lower risk of dynapenia. Between serum magnesium levels of 1.2 through 2.3 mg/dL, an increase of 0.1 mg/dL was associated with a 10% decrease in the risk of dynapenia (95% CI 0.83–0.98, p=0.018). Female sex (OR 1.94, 95% CI 1.32–2.84, p=0.001) and hypomagnesemia (OR 2.91, 95% CI 1.44–5.89, p=0.003) were independently associated with an increased risk of depression while longer duration of education (per year, OR 0.94, 95% CI 0.89–0.98, p=0.008) and higher hemoglobin levels (per 1 g/dL, OR 0.86, 95% CI 0.78–0.95, p=0.004) were associated with a lower risk of depression in the multivariate regression analysis. Between serum magnesium levels of 1.2 to 2.3 mg/dL, and increase of 0.1 mg/dl was assocatiated with a 9% decrease in the risk of depression (95% CI 0.85–0.98, p=0.009). Older age (per year, OR 1.08, 95% CI 1.06–1.12, p<0.001) was associated with an increased risk of mortality, while female sex (OR 0.26, 95% CI 0.16–0.44, p<0.001), a higher hemoglobin value (per 1 g/dL, OR 0.73, 95% CI 0.64–0.82, p<0.001), longer duration of education (per year, OR 0.93, 95% CI 0.87–0.99, p=0.018) and a higher serum magnesium level (per 0.1 mg/dL, OR 0.90, 95% CI 0.83–0.98, p=0.018) were associated with a lower risk of mortality in the multivariate logistic regression analysis.

Conclusion: Hypomagnesemia is independently associated with dynapenia, depression, and mortality in elderly subjects. Prospective studies are needed in order to confirm our results and test the possible benefits of magnesium supplementation.

Keywords: aged, geriatric assessment, magnesium, mortality

Table 1.

Variables	*Normomagnesemia (n=840)*	*Hypomagnesemia (n=48)*	*P-value*
Age, years	73 (67–78)	77 (69–85)	0.004
Female sex	% 68	% 64.6	0.625
Duration of education, years	3 (0–5)	1 (0–5)	0.191
Hypertention	% 67.3	% 77.1	0.170
Diabetes mellitus	% 36.2	% 52.1	0.029
Chronic kidney disease	% 19.2	% 35.4	0.006
Charlson comorbidity index	0 (0–1)	1 (0–1)	0.140
Number of drugs	4 (2–6)	6 (3–9)	0.001
Body-mass index, kg/m^2	31.4 (27.8–35.4)	30.8 (26.7–35.1)	0.358
Serum magnesium, mg/dL	2.0 (1.9–2.1)	1.5 (1.4–1.5)	<0.001
Hemoglobin, g/dL	13.9 (12.9–14.9)	12.6 (11.7–13.9)	<0.001
Serum creatinine, mg/dL	0.75 (0.63–0.94)	0.91 (0.72–1.01)	0.001
Glomerular filtration rate, mL/min/1.73 m^2	85 (67–93)	72 (54–88)	0.001
Serum albumin, g/dL	4.2 (4.0–4.4)	4.1 (3.8–4.2)	<0.001
Folic acid, ng/mL	8.9 (6.6–11.4)	7.2 (5.2–10.7)	0.030
Vitamin B12, pg/mL	226 (167–323)	316 (232–466)	<0.001
Vitamin D, ng/mL	13 (9–23)	11 (9–19)	0.241

PHYSICAL ACTIVITY

SS – 103

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GAIT AND BALANCE AND ASSOCIATED GERIATRIC SYNDROMES IN OLDER PATIENTS

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Introduction: Balance is essential for maintaining a static posture, stabilizing dynamic movements and performing daily activities. Chronic diseases, aging and accompanying geriatric syndromes can negatively affect the gait and balance ability of older people. Among several performance balance measures, such as the timed up and go, functional reach, Tinetti balance and gait (TBG), and Berg balance scales, TBG has been reported as the most suitable performance scale for evaluating balance in community-dwelling older people, hence it is highly correlated with decline in activities of daily living. Here we aimed to assess the gait and balance of the older patients and to explore the relationship between gait/balance and related geriatric syndromes.

Method: Gait and balance was evaluated by TBG. Study population was dichtomized as low risk (TBG total score >23) and moderate/high risk (TBG total score <24). Falls in the previous 12 months and fears of falling were recorded. Frailty assessed according to Fried criteria. Probable sarcopenia was determined by handgrip strenght according to EWGSOP2 criteria. Depression was evaluated by Geriatric depression scale. A score of ≥14 defined as depression. Cognitive function was assessed by mini-mental state examination (MMSE).

Serum levels of 25 (OH) vit D values were recorded. Patients with severe dementia and history of cerebrovascular disease were excluded from analysis.

Results: A total of 434 (300 F/134 M) patients were included in the study. 21.4% (n=93) of the patiens were at moderate/high risk according to TBG scores. Patients at moderate/high risk were older (p<0.001), experienced more falls (p=0.024) and fear of falling (p<0.001) were more frequently observed. Depression, frailty and sarcopenia were more prevalent in moderate/high risk patients (p<0.001 in all). MMSE scores were higher in low risk group (p<0.001). 25 (OH) vitD levels did not differ between the groups. In multivariate analysis only depression was independently associated with moderate/high risk TBG (OR: 2.045, CI: 1.116–3.748, p=0.021).

Conclusion: Depression seems to be an important risk factor for gait and balance impairment in older people. Furthermore gait and balance impairment may be a motor symptom of depression that is under-represented in the assessment of depression. In addition cerebral white matter lesions are associated with different geriatric syndromes such as falls, executive cognitive impairment and depressive symptoms, These lesions could interfere with long deep reflexes critical for gait and balance. A comprehensive assessment of gait and balance is valuable in preventing falls and ensuring the continuity of independent living in older people. Prospective studies are needed to evalute gait and balance after treatment of depression.

Keywords: gait; balance; elderly; depression

Table 1. Clinical characteristics of the patients according to Tinetti balance and gait test

Variables	Total n=434	Tinetti		p
		Low risk n=341	Moderate/high risk n=93	
Age, years	71.8±7.0	70.3±5.9	77.1±8.2	<0.001
Sex Male Female	 134(30.9) 300(61.9)	 116(34.0) 225(66.0)	 18(19.4) 75(80.6)	0.004
DM,n	204(49.4)	165(51.1)	39(43.3)	0.119
OH,n	109(36.5)	81(34.0)	28(45.9)	0.059
Number of drugs	4.3±2.6	4.1±2.4	5.0±2.9	0.004
CCI	3.6±1.1	3.5±1.1	4.1±1.1	<0.001
Falls	138(31.8)	100(29.3)	38(40.9)	0.024
Fears of falling	196(45.2)	136(39.9)	60(64.5)	<0.001
Frailty,n	160(44.3)	104(36.4)	56(74.7)	<0.001
Probable sarcopenia,n	120(30.1)	78(24.5)	42(52.5)	<0.001
Depression,n	168(40.2)	119(35.8)	49(57.0)	<0.001
MMSE, score	25.6±3.8	26.3± 3.3	23.2±4.6	<0.001
25(OH) vit D	18.5(13-26)	18.3(13-25)	19.0(12-28)	0.526

N(%), mean±sd, median(25th-75th), DM:Diabetes mellitus;OH:orthostatic hypotension;CCI:Charlson comorbidity index;MMSE:Minimental state examination

Table 2. Binary logistic analysis of clinical characteristşcs of patients according to Tinetti balance and gait test

Variables	Univariate		Multivariate	
	OR (95%CI)	P	OR (95%CI)	P
Age	1.144(1.103-1.186	<0.001	-	
Sex female male	2.148(1.226-3.765)	0.008	-	
DM	0.732(0.457-1.172)	0.194	Not selected	
OH	1.645(0.930-2.910)	0.087	-	
Number of drugs	1.139(1.042-1.246)	0.004	-	
CCI	1.624(1.323-1.994)	<0.001	-	
Falls	1.665(1.036-2.677)	0.035	Not selected	
Fears of falling	2.741(1.701-4.415)	<0.001	Not selected	
Frailty	5.158(2.907-9.152)	<0.001	-	
Probable sarcopenia	3.415(2.055-5.674)	<0.001	-	
Depression	2.370(1.464-3.839)	<0.001	2.045(1.116-3.748)	0.021
MMSE	0.829(0.781-0.880)	<0.001		
25(OH) vit D	1.009(0.983-1.036)	0.489	Not selected	

DM:Diabetes mellitus;OH:orthostatic hypotension;CCI:Charlson comorbidity index;MMSE:Minimental state examination

PHYSICAL ACTIVITY

SS – 104

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IS THERE A RELATIONSHIP BETWEEN SARCOPENIC OBESITY AND FRAILTY?

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Introduction: Sarcopenic obesity is defined as the presence of sarcopenia and obesity. Diagnostic criteria and proposed definitions are debated. Its association between frailty and sarcopenic obesity is not well described before. We designed a study to show the association between frailty and sarcopenic obesity in elderly patients.

Material and Methods: We evaluated sarcopenic obese patients admitted to Geriatrics Outpatient Clinic whose frailty status were known within the last 6 months. Totally 89 obese elderly patients included for the study. All patients underwent comprehensive geriatric assessment. We defined sarcopenic obesity as the presence of low muscle function (defined by a hand grip strength <27 kg in males and <16 kg in females) and high BMI (≥30 kg/m2). Frailty status of the patients was evaluated by Fried Frailty Scale that contains five parameters (weight loss, exhaustion, walking speed, handgrip strength and physical activity).

Results: The median age of the eighty-nine obese patients was 72 years (min-max: 65–85), and 72 (81%) patients were female. Age, gender and comorbidities (except for coronary artery disease and osteoporosis) were similar between sarcopenic obese and non-sarcopenic obese participants. Sarcopenic obese participants had poorer physical and cognitive function compared to non-sarcopenic obese ones. The percentage of frailty in the sarcopenic obese group was 26%, whereas 2% in the non-sarcopenic obese group (p<0.01). Fried Frailty Scale scores were higher in the sarcopenic obese patient group than in those without [2 (0–4) vs. 1 (0–4)] (p<0.01).

Conclusion: In this study we have found that Fried Frailty Scale scores were higher in sarcopenic obese group. Sarcopenic obesity may be a risk factor for frailty in elderly obese patients. Large prospective studies are needed to evaluate its relationship with frailty.

Keywords: sarcopenia, sarcopenic obesity, obesity

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 106

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EXAMINATION OF OSTEOSARCOPENIA IN PATIENTS OVER 65 YEARS OLD WITH HIP FRACTURE

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Introduction and Aim: In the elderly, there is a relationship between osteopenia and osteoporosis and the risk of falls and fractures. Nevertheless clinical, functional and biochemical characteristics of osteosarcopenic (OS) patients, which is a new entity, remain unknown. In this study, we investigated the phenotype of osteosarcopenia in hospitalised patients aged 65 and older with a history of falling and hip fracture.

Material and Methods: A total of 76 patients included in the study according to power analysis results. We accepted patients aged 65 and above, with a history of falling and hospitalised in orthopedics clinic because of hip fracture. Patients with a known history of dementia and myopathy were excluded. We assessed weight, height, body mass index, upper arm and calf circumference, measurements along with parathormone, calcium, phosphorus, thyroid stimulating hormone (TSH), creatinine, albümin and 25-hydroxy vitamin D levels. A short form of MNA (Mini nutritional assessment) score were used to evaluate nutritional status. Appendicular lean mass (ALM) and osteopenia/osteoporosis status were measured with dual x-ray energy absorptiometry (DEXA) and muscle strength were measured with hand dynamometer. We used SARC-F scale to determine the physical performance, FRAIL scale to assess frailty and SAFFE (Survey of activities and fear of falling in the elderly) score to assess the fear of falling. The relationship between osteosarcopenia and other parameters were evaluated in the study. The patients were separated into four groups as normal, osteopenic/osteoporotic, sarcopenic, osteosarcopenic and two groups as normal and pathological (osteopenic/osteoporotic, sarkopenic ve osteosarcopenic). Difference between groups were assesed with SPSS 22.0 and p values less than 0.05 were considered statisitcally significant.

Results: 77.6% of patients were women (N: 59) and 22.4% of them were men (N: 17). The average age of the patients was 81. 18.4% of patients were normal (N: 14), 14.4% were sarkopenic (N: 11), 30.2% were osteopenic/osteoporotic (N: 23) and 36.8% of them were osteosarcopenic (N: 28). Normal group involved 18.4% (N: 14) and pathological group involved 81.5% (N: 62) patients. In comparison of 2 groups, there were statistically significant difference in height adjusted appendicular lean mass, grip strength, fat mass index and upper arm circumference. On the other hand when all 4 groups were compaired, only height adjusted appendicular lean mass and grip strength showed significant difference. In sarcopenia (Mean ± SD: 5.2±0.60) and osteosarcopenia (Mean ± SD: 5.2±0.77) groups, height adjusted appendicular lean mass were detected lower than the other groups. Grip strength were significantly lower in osteosarcopenic group (Mean ± SD: 15±7.98). There was no significant differencein other parameters. While there was a positive relationship between height adjusted appendicular lean mass and weight, fat mass index, upper arm circumference, calf circumference; there was a negative correlation with blood phosphorus and albumin levels ($p<0.05$). A positive correlation was found between total T score and age and weight; a negative correlation was found between total T score and blood phosphorus levels ($p<0.05$).

Conclusion: In our study, osteosarcopenia was largely accompanied by hip fracture in geriatric patients. In elderly patients with hip fractures, reduction of bone mass always comes to mind as a risk factor, while the contribution of sarcopenia remains in the background. Almost 40% of these patients were accompanied by osteosarcopenia. The parameters associated with osteosarcopenia are primarily height adjusted appendicular lean mass and grip strength. According to the results of our study, we think that treatments only for bone mass will be insufficient in the prevention of fractures in the elderly. In this group of patients, osteosarcopenia should definitely be kept in mind as a risk factor. As a result, the frequency of osteosarcopenia has increased significantly in patients over 65 years old with hip fracture.

Keywords: osteosarcopeni, hip fracture

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 107

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THE PREVALENCE OF FALLS AND FACTORS RELATED TO FALLS

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Objective: Falls are major causes of morbidity and mortality with devastating consequences (1, 2). However, reporting different risk factors in different studies creates difficulties in determining the factors associated with falling. Therefore, in this study, fall frequency and fall-related factors in geriatric patients were investigated.

Materials and Methods: Between January 2016 and January 2018, 312 patients aged 65 years or older who applied to our outpatient clinic were included in the study. Patients who refuse to participate in the study and could not cooperate were excluded from the study. A fall history was questioned in all patients in the past year. The patients were divided into two groups, with and without fall history. Demographic and clinical tests were compared between the two groups. The normal distribution in age and number of drugs was examined with the Kolmogorov-Smirnov test. Chi-square test was used to compare categorical variables, Mann Whitney U test was used to analyze non-parametric variables and logistic regression analysis was used to analyze risk factors associated with falls.

Results: 223 (71.5%) of the patients were female and 89 (28.5%) were male. The prevalence of falls among older adults in the last year was 38.8%. The mean age of patients with a history of falling was 75±6.9 years. There was a significant difference between groups with and without fall history in terms of fear of falling, use of walking aid, depression, sleep problem, urinary and fecal incontinence (Table 1). According to logistic regression analysis, age (OR, 1.034; 95% CI, 1.001–1.068, p=0.045), number of drugs (OR, 1.127; 95% CI, 1.04–1.222, p=0.004), use of walking aid (OR, 2.384; 95% CI, 1.178–4.824, p=0.016), fear of falling (OR, 2.236; 95% CI, 1.404–3.561, p=0.001) and depression (OR, 2.144; 95% CI, 1.019–4.507, p=0.044) were associated with falls; but dementia (OR, 1.577; 95% CI, 0.692–3.597, p=0.278) was not associated.

Conclusion: Comprehensive geriatric assessment is a valuable tool for determining fall risk factors. Evaluation of changeable risk factors is very important to prevent falls in older adults.

Keywords: falls, risk factors, geriatrics

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Table 1. Demographics and findings associated with falls

	Patients with a fall history (N = 121)	Patients without a fall history (N = 191)	p
Age (mean ± SD, year)	75±6,9	74±7,1	>0,05
Gender (n, %)			
Woman	93 (76,9%)	130 (68,1%)	>0,05
Male	28 (23,1%)	61 (31,9%)	
Education (n, %)			
Illiterate	19 (15,7%)	26 (13,6%)	>0,05
Primary school graduate	56 (46,2%)	69 (36,1%)	
Secondary school graduate	4 (3,3%)	12 (6,2%)	
High school graduate	7 (5,7%)	14 (7,3%)	
Graduated from a University	10 (8,2%)	23 (12%)	
Number of drugs	7 (min:2, max:14)	5 (min:1, max:12)	**0,006**
Use of walking aid (n, %)			
Yes	15 (12,3%)	12 (6,2%)	**0,01**
No	51 (42,1%)	90 (47,1%)	
Fear of falling (n, %)			
Yes	69 (57,9%)	72 (37,7%)	**0,001**
No	51 (42,1%)	119 (62,3%)	
Vision problem (n, %)			
Yes	1 (0,8%)	1 (0,5%)	>0,05
No	10 (8,2%)	32 (16,7%)	
Dementia (n, %)			
Yes	13 (10,7%)	13 (6,8%)	>0,05
No	71 (58,6%)	112 (58,6%)	
Depression (n, %)			
Yes	19 (15,7%)	15 (7,8%)	**0,03**
No	65 (53,7%)	110 (57,5%)	
Parkinson's disease (n, %)			
Yes	3 (2,4%)	5 (2,6%)	>0,05
No	81 (66,9%)	120 (62,8%)	
Sleep problem (n, %)			
Yes	55 (45,4%)	68 (35,6%)	**0,04**
No	65 (53,7%)	123 (64,3%)	
Urinary incontinence (n, %)			
Yes	59 (48,7%)	66 (34,5%)	**0,01**
No	62 (51,2%)	124 (64,9%)	
Fecal incontinence (n, %)			
Yes	9 (7,5%)	4 (2,7%)	**0,03**
No	112 (92,5%)	186 (97,3%)	

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 108

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RELATIONSHIP BETWEEN SARCOPENIA AND ACTN3 R577X GENE IN TURKISH OLDER ADULTS

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Purpose: Sarcopenia is characterized by decreased muscle strength, mass and function with an increased risk of adverse outcomes. Very recently, ACTN3 genotype was reported as it may influence decline in muscle mass in older Korean adults. We aimed to evaluate whether there isa relationship between ACTN3 R577X gene polymorphism and low muscle mass or muscle strength in older Turkish adults.

Methods: The study included patients ≥65 years admitted to the geriatric outpatient clinic. Muscle mass was assessed with bioimpedance analysis (BIA). Muscle strength was evaluated by hand grip strength with a Jamar hydraulic hand dynamometer. Sarcopenia was diagnosed according to EWGSOP2 criteria. Skeletal muscle mass index (SMMI) was adjusted with two alternative methods: SMMI (height) and SMMI (BMI). Blood samples were collected from the all participants, after DNA isolation, RT-PCR method was used for genotyping of polymorphisms.

Results: 197 participants were included aged between 65–99 years (mean age: 76.2±6.1). 151 patients (76.6%) were female. XX genotype of ACTN3 was present in 23.9%. Homozygous (RR) and heterozygous (RX) genotypes were 31% and 45.2%, respectively. No significant difference was observed in mean age, height, weight, BMI, body fat, timed-up-and-go-test, chair stand, gait speed across the genotypes. 50.8% had low SMMI (BMI), whereas all participants except one case had normal SMMI (height). Alleles were not different between SMMI normal and low groups (Table 1). Characteristics of SMMI (BMI) normal and low groups are shown in Table 2. 44.67% of the participants had probable sarcopenia, and 29.4% had confirmed sarcopenia. In univariate analyses, there was no significant difference in ACTN3 polymorphism in between patients with probable sarcopenia or confirmed sarcopenia compared with the patients without probable and confirmed sarcopenia. In regression analysis SMMI or muscle strength or sarcopenia was neither associated with ACTN3 R577X genotypes.

Conclusion: To our knowledge, this is the first study evaluating the association of ACTN3 R577X gene polymorphism with sarcopenia parameters among community dwelling older adults in Turkey. Our study suggests that there is no significant relationship between sarcopenia parameters and ACTN3 R577X gene polymorphism in Turkish older adults.

Keywords: sarcopenia, ACTN3, handgrip strength, SMMI, muscle mass

This work was funded by Scientific Research Projects Unit of Istanbul University. (Project Number: 34004)

Table 1.
Table 1- Genotype distribution of *ACTN3* gene in the study population (p=0.81)

	RR	RX	XX
Low SMMI(BMI)	29	47	24
Normal SMMI(BMI)	32	42	23

SMMI (BMI) cut-points were 1.049 vs. 0.823 kg/BMI for males and females.

Table 2.
Table 2- Comparison of demographic data of the groups

	Low SMMI(BMI)	Normal SMMI(BMI)	p
Handgrip (kg)	22±7.2	28±8.4	.0001
TUG (sec)	10.5±4.1	8.9±2.8	.002
OYH /sec)	0.92±0.35	1,08±0.35	.004
BMI (kg/m^2)	32.87±4.5	26.21±3.5	.0001
ADL	5.52±0.75	5.73±0.44	.018
IADL	6.65±2.07	7.47±1.25	.001
EQ-5D index	8.09±2.03	6.21±1.4	.000
Number of Diseases	1.45±1.2	1.02±1.1	.010
Chair stand	12.09±3.7	11.71±4.7	.699
EQ-5D%	81.1±82.96	70.83±16.56	.450
Number of Drugs Used	5.21±2.52	4.83±2.74	.480

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 109

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LIVER ENZYMES AND LOSS OF MUSCLE MASS

Semih Kalyon

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Introduction: AST is an enzyme that expressed on heart, muscle, kidney and erythrocyte while ALT is a liver specific transaminase. Especially liver steatosis and inflammation may occur because of the insulin resistancy. As a result liver enzymes may increase. Muscle mass may decrease with similar mechanism in particularly older patients.

Purpose: Detecting the relationship between liver enzymes and loss of the muscle mass

Method: Over the age of 65 patients were included in this study with approval. Age, gender, height, weight, BMI, AST, ALT, fasting blood glucose were recorded. Bioimpedance measurements were done with Tanita Innerscan and FFMI scores were calculated. The results were evaluated with SPSS statistical programme.

Findings: The patients were divided in two groups as a low FFMI and normal FFMI. Gender, age, fasting blood glucose, BMI were equal in two groups. But in low FFMI group, AST and ALT results were statistical significantly high compare the normal FFMI group. ($P<0.05$) (Table 1)

Discussion and Conclusion: Loss of muscle mass and liver inflammation's mechanisms are likely similiar. Up to today researches show insulin resistance and inflammation with cytokines like IL-6 and TNF alpha. Shibata et al. showed that in their study (n: 892692); over the age of 60 and lower weight patients had skeletal muscle pathologies with normal ALT and high AST values. In Seko et al. study; liver function and sarcopenia index (appendicular skeletal mass/BMI) and SF ratio (skeletal muscle mass/body fat mass) were well-corelated in non alcoholic fatty liver disease. So in geriatric patients, the loss of the muscle mass and liver inflammation relationship should not be overlooked.

Keywords: muscle, ALT, AST, FFMI

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Table 1.

(n=39)	*Low FFMI*	*Normal FFMI*	*P*
Gender (Male/Female)	13/2	18/6	0.07
Age (Year)	73.4±6	75.7±6	0.85
FPG (md/dl)	129±58	113±36	0.19
BMI (kg/m^2)	22±3	27±4	0.30
Muscle Mass (KG)	46±6	54±9	0.05
AST (IU/L)	23±7	17±3	0.003
ALT (IU/L)	19±6	11±3	0.03

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 110

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EVALUATION OF THE FREQUENCY OF SARC-F IN PATIENTS OVER 65 YEARS WITH CHRONIC DISEASE

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Introduction: Sarcopenia is a current entity that occurs in the course of chronic diseases and is related to the worsening of diseases. In this study, we aimed to review the frequency of SARC-F and associated conditions in individuals with chronic diseases.

Aim: We conducted a SARC-F questionnaire on individuals with chronic diseases over the age of 65. Method: We evaluated the relationship between disease and biochemical parameters with the SARC-F questionnaire. 104 patients, 39 males and 65 females with chronic diseases, who applied to the tertiary care hospital were included in the study.

Result: Average age was 70.1±5.4. SARC-F 4≤was detected in 37.5% of all patients. SARC-F 4≤was measured in 25 (53.2%) of 47 Type 2 Diabetes Mellitus patiens, 28 (41.8%) of them with HT, and 7 (31.8%) of them with CRF. In patients with SARC-F 4≤, the mean values of albumin, hemoglobin, vitamin D, uric acid, calcium, sedimentation were lower, and the mean BMI and CRP values were higher.

Conclusion: It would be an appropriate approach to evaluate individuals with chronic diseases in terms of sarcopenia with questionnaires and other pre-evaluation methods.

Keywords: SARC-F, chronic disease, sarcopenia

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 112

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Publication Start Date: *2020–10–18 16:45:00*
Publication End Date: *2020–10–18 16:51:00*

COMPARISION OF CLINICAL RISK FACTORS BETWEEN FALLERS AND NON-FALLERS IN OLDER PEOPLE

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Introduction: Falls are the fifth leading cause of death and are one of the main causes of hospitalization. Falls frequently occurr as a result of impaired postural reflexes, due to degenerative changes that accompany the aging process. However, geriatric syndromes such as sarcopenia and various clinical conditions are also associated with the risk of falling. The present study aimed to estimate the prevalence of falls and associated clinical factors.

Methods: Falls in the previous 12 months were recorded. Fraility was determined according to FRAIL scale. Sarcopenia was assessed by SARC-F scale. According to Geriatric depression scale, 14 points and higher defined as depression. Polypharmacy was assessesd as 5 or more drug in chronic use. Charlson comorbidity indexes were calculated for each patient. Cognitive status was evaluated by mini-mental state examination. Serum 25 (OH) vit D levels were recorded. Muscle strenght and muscle performance were evaluated by hand grip strength (HGS) and 4-m gait speed (GS), respectively. Skeletal muscle mass indexes (SMMI) were determined by bioimpedance analysis (BIA). Waist circumference measured in centimeters. Body mass index (BMI) was calculated by dividing weight by the square of the height.

Results: A total of 102 patients were included in the study (30M/72F). 35.3% (n=36) of the patients had experienced falls. Falls were not related with age, sex, comorbidities and polypharmacy. In addition there were no difference with regard to BMI, waist circumference, HGS and SMMI between fallers and non-fallers in both genders. Sarcopenia was more prevalent among fallers (p=0.051) and falls were significantly related with depression (p=0.015).

Conclusion: Depression and sarcopenia defined by SARC-F are significantly associated with falls. Depression and falls are common and co-exist for older people. Depression causes gait alteration, which may be a motor sign of depression and facilitates the risk of falling. In clinical practice, more attention should be given to old fallers concerning diagnosis and treatment of associated depression and sarcopenia. Safe management of each of these conditions is important to quality of life.

Keywords: falls; depression; sarcopenia; SARC-F

Table 1. Clinical characteristics of study population and comparison of fallers and non-fallers

Variables	Total N=102	Fallers N=36	Non-Fallers N=66	p
Age	69.6±6.1	69.4±6.8	70.8±6.5	0.318
Sex				
Male	30(29.4)	10(27.8)	20(30.3)	0.488
Female	72(70.6)	26(72.2)	46(69.7)	
CCI	3.5±0.9	3.5±1.0	3.7±1.2	0.550
Poypharmacy,n	36(40.9)	14(45.2)	22(38.6)	0.354
Sarcopenia (SARC-F),n	42(41.2)	19(52.8)	23(34.8)	**0.051**
Frailty,n	23(22.5)	10(27.8)	13(19.7)	0.245
Depression,n	43(42.6)	21(58.3)	22(33.8)	**0.015**
MMSE scores	25.8±3.5	25.7±4.1	25.5±4.0	0.837
4-m GS	4.51(3.60-6.33)	4.88(4.0-7.0)	4.47(3.5-5.1)	0.575
25(OH)vit D	19.2±7.5	18.0±7.2	21.1±8.7	0.107
Female				
BMI	34.1±6.7	35.1±6.5	32.8±6.7	0.161
Waist,cm	109±13.0	112±11.7	107±14.3	0.108
HGS	18.6±4.9	18.3±4.0	18.8±5.5	0.729
SMMI	7.9±1.2	8.0±1.2	7.7±1.7	0.491
Male				
BMI	27.9±4.7	26.5±2.4	28.6±5.4	0.258
Waist	105.5±13.1	103.1±10.0	105.9±13.8	0.569
HGS	31.3±11.8	28.5±4.1	32.8±14.2	0.397
SMMI	9.7±1.3	9.8±0.9	9.6±1.5	0.800

N(%), mean±sd, median(25th-75th);CCI: Chalson comorbidity index;MMSE:Mini-mental state examination; GS:Gait speed;BMI:Body mass index;HGS:Hand grip strength;SMMI:Skeletal muscle mass index

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 113

Publication Hall: *Salon B*
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EFFECTS OF DIABETIC POLYNEUROPATHY ON PAIN, FUNCTIONAL STATUS AND QUALITY OF LIFE IN KNEE OSTEOARTHRITIS

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Objective: It was aimed to investigate the effects of neuropathic pain on functional status and quality of life in knee osteoarthritis (OA) patients with type 2 diabetes mellitus.

Methods: 122 primary knee OA patients with type 2 diabetes mellitus were included in this cross-sectional study. Demographic data of the patients were recorded. Antero-posterior knee radiographs of the patients were evaluated using the Kellgren-Lawrence staging system. Visual Analogue Scale (VAS) for pain severity at rest and physical activity, Douleur Neuropathique en 4 Questions (DN4) questionnaire and Leeds Assessment of Neuropathic Symptoms and Signs (LANSS) pain scale for determining neuropathic pain component, Lequesne index to assess functional status and Short form-36 (SF-36) questionnaire for quality of life were applied.

Results: 109 patients (89.3%) were female and 13 patients (10.7%) were male. The mean age was 67.3±9.8 years. Neuropathic pain was present in 38.5% of the patients according to the DN4 questionnaire and in 13.1% of the patients according to the LANSS pain scale. In the group with neuropathic pain according to DN4, VAS-rest (p=0.015), and the group with neuropathic pain according to LANSS, the Lequesne scores (p=0.022) were found to be statistically significantly higher than the group without neuropathic pain. According to DN4 and LANSS, no statistically significant difference was found between the groups with and without neuropathic pain in VAS-activity and SF-36 scores (p>0.005).

Conclusion: The findings of this study showed that neuropathic pain is a factor that increases pain and disability in chronic knee OA patients with type 2 diabetes mellitus. Neuropathic pain should be questioned in knee OA patients with diabetes mellitus, and neuropathic pain treatment should be applied as a part of osteoarthritis treatment.

Keywords: diabetes mellitus, exercise, knee joint

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SKELETAL MUSCLE SYSTEM DISORDERS

SS – 114

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Publication End Date: *2020–10–18 17:03:00*

SITES OF FRAGILITY FRACTURES IN OLDER WOMEN AND MEN WITH AND WITHOUT TYPE 2 DIABETES MELLITUS

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Background and Aims: Patients with type 2 diabetes mellitus (T2DM) are at increased risk of fragility fractures regardless of bone mineral density. T2DM has been associated with micro– and macroarchitectural abnormalities that lead to a reduction in bone strength, which may cause hidden fractures in vertebral bodies. On the other hand, classical comorbidities and high rates of falls have also been postulated and were linked to higher risk of non-vertebral fractures. This study compared the fracture sites in patients with T2DM and controls.

Materials and methods: This cross-sectional study involved older women and men (aged 65 years or above) with and without T2DM who had a recent vertebral fracture evaluation (VFE) in an outpatient setting. Wrist, proximal humerus, and hip fracture history were self-reported. Radiographic vertebral fractures were diagnosed by a 20% or greater loss of vertebral body height.

Results: Four hundred twenty older adults [n: 220 with T2DM, mean (SD) age: 73.3 (5.9), 75.5% female; n: 200 control subjects, mean (SD) age: 74.8 (6.6), 75.0% female] were included in the study. Age and gender-adjusted rate of overall fracture (32.7% vs. 23.5%, p=0.010), wrist (10.5% vs. 4.5%, p=0.019), and radiographic vertebral fracture (24.5% vs 18.0%, p=0.038) were higher in T2DM group vs. controls. The frequencies of proximal humerus, hip, and multisite fractures were similar. Compared to the control group, after adjustment for age, female patients with T2DM had more wrist fractures vs. male patients (13.9% vs. 4.7%, p=0.007). In contrast, male patients with T2DM had more radiographic vertebral fractures vs. female patients (22.2% vs. 10.0%, p=0.022). After adjustment for age and gender, a single history fall in the last 12 months was associated with increased frequency of overall (OR: 1.90, 95% CI: 1.06 to 3.42, p=0.032) and wrist fractures (OR: 2.80, 95% CI: 1.07 to 7.32, p=0.036) in the T2DM but not in the control group (OR: 1.27, 95% CI: 0.62 to 2.59, p=0.516). The duration of T2DM (14 years, median) was not associated with fracture after adjustments. Fifty percent (6/12) of self-reported vertebral fractures were not confirmed by VFE concerning >=20% loss of vertebral body height.

Conclusion: In this study, we report that overall, wrist and radiographic vertebral fractures were significantly more frequent in older adults with T2DM. Wrist fractures were more prevalent in female T2DM patients, but radiographic vertebral fractures were more prevalent in male T2DM patients. A single fall history was the predictor of overall and wrist fractures in the T2DM but not in the control group.

Keywords: diabetes mellitus, osteoporosis, fragility fracture

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 115

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Publication End Date: *2020–10–18 17:09:00*

RELATIONSHIP BETWEEEN SERUM ALPHA-KLOTHO AND SARCOPENIA IN OLDER ADULTS

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Introduction and Objective: Various phenotypes such as osteoporosis, aging-related skin changes, life-shortening, muscle weakness, and muscle atrophy, which are characteristics of the premature aging syndrome, have been shown In the homozygous mutation of the Klotho gene in mice. Sarcopenia is a geriatric syndrome which associates with mortality, falls, and impaired functionality in geriatric people. This study aims to evaluate the relationship between alpha Klotho protein levels and sarcopenia in geriatric patients.

Materials and Methods: The study design is case-control. In this study, we included a total of 89 patients aged 65 and over; 43 patients with sarcopenia in the case group and 46 patients without sarcopenia in the control group. Within the study's scope, we measured plasma alpha klotho protein levels and evaluated comprehensive geriatric assessment, anthropometric measurements, walking speed, handgrip strength, muscle mass, and fat mass.

Results: In the study, there was no relationship between alpha Klotho protein level and sarcopenia. There was no difference between alpha Klotho protein level and anthropometric measurements, walking speed, and handshaking power, The frequency of hypertension and hemoglobin level were correlated with high alpha Klotho level in both groups. There was a negative correlation between alpha Klotho protein levels and ALT levels.

Discussion and Conclusion: It is essential to reveal the development mechanism of sarcopenia and its related conditions in diagnosis, treatment, and follow-up. In this study, we found no statistically significant relationship between sarcopenia and alpha Klotho protein levels. A further comprehensive, with high numbered patients and prospective observational studies, are needed.

Keywords: sarcopenia, alpha klotho protein, geriatric age, muscle mass

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 116

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FECAL INCONTINENCE FREQUENCY AND ITS RELATION WITH HAND GRIP STRENGTH

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Aim: Fecal incontinence is prevalance reported to be between 1–10% among old aged patients. Defacation process involves smooth and striated muscles, central and peripheral innervation, reflex coordination, mental competence and physical conditioning to g oto toilet. In this study we aimed to analyze if there is any relation between handgrip strength and fecal incontinence

Materials and Methods: Between August 2019-January 2020 every geriatric patient admitted to gastroenterolgy department of Ankara university were included in the study. Bedridden patients, patients with advanced dementia, patients with laxative use, constipation or diarrhea and not voluntereed were excluded from the study. SPSS-23.0 were used for statistical analyses.

Results: Among 603 patients included 17 (% 2.8) had fecal incontinence. Female gender (p: 0.01) and urinary incontinece (p: 0.004) were smore common among patients with urinary incontinence. FRAIL score was statistically significantly lower among patients with fecal incontinence (p: 0.013) Handgrip strength was statistically significantly ($p<0.001$) lower among patients with urinary incontinence.

Discussion: Since striated muscles are a component of fecal continence handgrip strength may be an indirect measure of strength of anal pressure.

Conclusion: Fecal incontinence may be an alarming symptom or an antecedent symptom of frailty

Keywords: fecal incontinence, handgrip strength, frailty

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 117

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SARCOPENIA IN HOSPITALIZED PATIENTS AND RELATED FACTORS: A MULTICENTER STUDY

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Aim: Objective of this study is to investigate the prevalence of sarcopenia in hospitalized older patients and assess the associations between sarcopenia and health care outcomes including dependency, malnutrition and dysphagia.

Methods: This multicenter cross-sectional study is a part of annual National Prevalence Measurement of Quality of Care (LPZ). Hospitalized patients age 65 and older were included in the study. Sarcopenia was evaluated by SARC-F. Dependency was appraised according to Care Dependeny Scale (CDS). Nutritional status was established with respct to Malnutrition Universal Screening Tool (MUST). Dysphagia was screened by structured two questions.

Results: A total of 492 (244F/248M) patients were included in the analysis. Prevalences of sarcopenia, dependeny and malnutrition were 48.8% (240), 38.4% (189), 40.7% (200), respectively. Sarcopenia was highly observed in patients with diagnosis of infectious disorders (61.3%), dementia (73.8%) and stroke (62.5%). Sarcopenia was more prevalent among women ($p=0.007$) and sarcopenic patients were older ($p<0.001$). Hospital stay was longer and malnutrition and swallowing problems were more prevalent in patients with sarcopenia than without (all $p<0.001$). All nutritional interventions were mostly applied to patients with sarcopenia than without. In multivariate analysis advanced age (OR: 2.414, CI: 1.510–3.857, $p<0.001$), female gender (OR: 1.068, CI: 1.032–1.104, $p<0.001$) and dependency (OR: 5.022, CI: 2.922–8.632, $p<0.001$) were independently associated with sarcopenia.

Conclusion: Sarcopenia is related with unfavorable outcomes in hospitalized patients. Older female patients are at most risky group for sarcopenia. It is important to recognize sarcopenia at an early stage and to prevent its progression, before dependency develops. SARC-F may be a useful tool for screening sarcopenia in hospitalized patients.

Keywords: sarcopenia, hospitalization, dependency, malnutrition

Table 1. Characteristics af the patients and sarcopenia status

Variables	Total N=492	Sarcopenia N=240	No Sarcopenia N=252	p
Age, years	75.5 ±7.6	77.6 ±7.8	73.5 ±6.8	<0.001[1]
Sex Female Male	 244(49.6) 248(50.4)	 134(55.8) 106(44.2)	 110(43.7) 142(56.3)	 0.007[2]
BMI kg/m^2 Female Male	 28.8(7.0) 24.8(5.2)	 29.0 ±7.9 24.5 ±5.7	 28.7 ±5.9 25.1 ±4.9	 0.891[1] 0.175[1]
Dementia, n(%)	42(8.5)	31(12.9)	11(4.4)	0.001[2]
Stroke, n(%)	24(4.9)	15(6.3)	9(3.6)	0.242[2]
Mental health disorders, n(%)	26(5.3)	16(6.7)	10(4.0)	0.256[2]
Cancer, n(%)	91(18.5)	54(22.5)	37(14.7)	0.026[2]
Infectious disorders, n(%)	93(18.9)	57(23.8)	36(14.3)	0.007[2]
DM, n(%)	151(30.7)	82(34.2)	69(27.4)	0.103[2]
Mean length of stay med(min-max)	6.0(0-317)	8(0-317)	5(0-92)	<0.001[1]
Malnutrition, MUST prevelance n(%)	189(44.7)	107(53.0)	82(37.1)	0.001[2]
CDS total score med(min-max)	66(15-75)	75(15-75)	51(15-75)	<0.001[1]
Dependent, n(%)	200(40.7)	151(62.9)	49(19.4)	<0.001[2]
Swallowing problems, n(%)	102(20.9)	70(29.4)	32(12.7)	<0.001[2]
Sneeze/Cough while swallowing, n (%)	89(18.4)	62(26.3)	27(10.9)	<0.001[2]

[1]Mann Whitney u , [2] Yates Contiounity Correction, [3] Chi-Square

Table 2. Univariate and multivariate analysis according to sarcopenaia status

Variables	Univariate		Multivariate	
	OR (95% CI)	p	OR(95% CI)	p
Age, years	1.079(1.051-1.107)	<0.001	2.414(1.510-3.857)	<0.001
Sex	1.632(1.143-2.330)	0.007	1.068(1.032-1.104)	<0.001
Diagnosis				
Dementia	1.903(0.884-4.094)	0.100	-	-
Cancer	2.305(1.406-3.781)	0.001	-	-
Infectious disorders	1.724(1.063-2.797)	0.027	-	-
Mean lenght of stay	1.022(1.009-1.035)	0.001	-	
Malnutrition	2.128(1.404-3.225)	<0.001	-	-
Dependency	6.351(4.113-9.806)	<0.001	5.022(2.922-8.632)	<0.001
Swallowing problems	2.597(1.599-4.217)	<0.001	-	-
Sneeze/Cough while swallowing	2.597(1.548-4.355)	<0.001	-	-

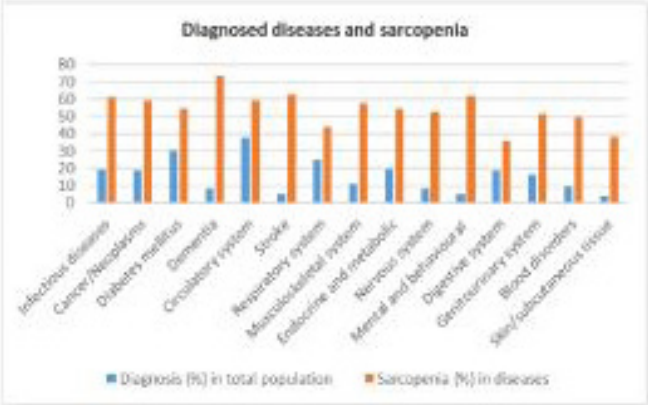

Figure 2. Blue bars represent the percentage of diseases in study population Bars with orange color represent the percentage of sarcopenic patients among each disease.

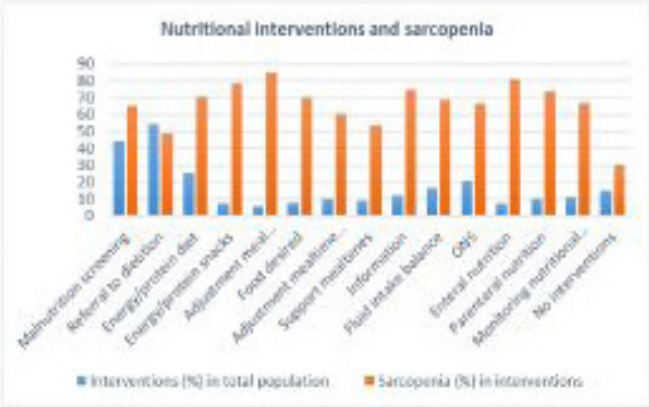

Figure 3. Blue bars represent the percentage of nutritional interventions in study population Bars with orange color represent the percentage of sarcopenic patients among each intervention.

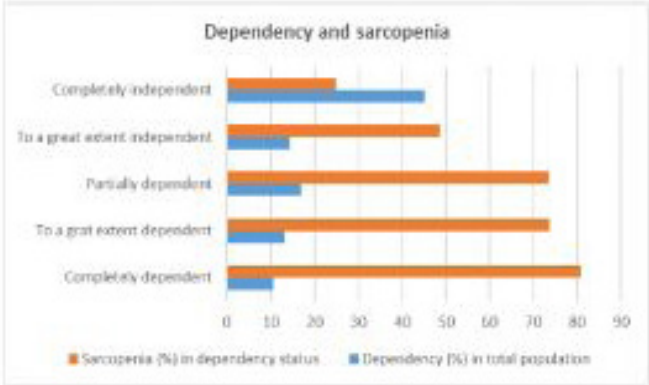

Figure 4. Blue bars represent the dependency status in study population Bars with orange color represent the percentage of sarcopenic patients among each dependency status.

SKELETAL MUSCLE SYSTEM DISORDERS

SS – 118

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TURKISH ADAPTATION AND VALIDATION OF THE SARCOPENIA QUALITY OF LIFE QUESTIONNAIRE (SARQOL)

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Purpose: To cross culturally adaptate and validate the Sarcopenia Quality of Life (SarQoL) questionnaire to assess sarcopenia related quality of life in Turkey.

Methods: The translation and cultural adaptation process was carried out in 5 stages; (i) two initial translations from English to Turkish, (ii) combining of these 2 translations, (iii) backwards translations, (iv) expert committee review to compare backward translations with the English questionnaire and (v) pretest. Sarcopenia was diagnosed by three different (EWGSOP1, EWGSOP2 and FNIH algorithm) diagnostic criteria. According to EWGSOP2, sarcopenia was classified as probable sarcopenia (low muscle strength) and confirmed sarcopenia (presence of low muscle quantity or quality and low muscle strength). To validate the Turkish SarQoL, we assessed its validity (discriminative power, construct validity), reliability (internal consistency, test–retest reliability) and floor/ceiling effects.

Results: The Turkish SarQoL questionnaire was translated with minor difficulties. For cultural adaptation, some important points have arisen, and they have been resolved by close e-mail interaction with the creators of the questionnaire. A total of 100 community-dwelling subjects aged 74.6±6.1 (71% females) were studied. Seven, twenty-seven, five and eleven participants were diagnosed with sarcopenia according to EWGSOP1, EWGSOP2 (probable sarcopenia), EWGSOP2 (confirmed sarcopenia) and FNIH definition respectively. According to EWGSOP1 and EWGSOP2 (confirmed sarcopenia) definitions, individuals with sarcopenia have reduced global quality of life scores compared to non-sarcopenic subjects (p>0.05). According to FNIH and EWGSOP 2 (probable sarcopenia) definitions, individuals with sarcopenia have significantly reduced global quality of life scores compared to non-sarcopenic subjects (<0.001) (Table1). Results showed a high internal consistency (Cronbach's alpha=0.882), consistent construct validity and excellent test-retest reliability (ICC=0.96, 95% CI=0.94–0.98). There was no floor/ceiling effect.

Conclusion: The Turkish SaQoL questionnaire was found to be a reliable and valid for the measurement of quality of life for sarcopenic patients and is therefore available for use in clinical research and practice.

Keywords: sarcopenia, quality of life, validation

Table 1. Comparison of SarQoL total scores according to different sarcopenia definitions

	Sarcopenia	*No sarcopenia*	*p-value*
EWGSOP1	56.6±20.7 (n: 7)	64.3±18.4 (n: 73)	0.311
EWGSOP2 Probable sarcopenia	50±16 (n: 27)	68.9±16.9 (n: 73)	<0.001
EWGSOP2 Confirmed sarcopenia	58.6±20 (n: 5)	64±18.6 (n: 95)	0.527
FNIH	43.6±16.5 (n: 11)	66.3±17.3 (n: 89)	<0.001

SKELETAL MUSCLE SYSTEM DISORDERS

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SARCOPENIC OBESITY AND RELATED FACTORS

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Objective: Sarcopenic obesity (SO) is a relatively new geriatric giant associated with important negative outcomes in older adults. SO is related to accelerated functional decline, high risk of diseases and mortality. Aim of the study is to evaluate SO prevalence and related factors in community-dwelling older adults.

Matherials and Methods: This is a retrospective cross-sectional study consisting of older adults refering to outpatient clinic between 2014 and 2019. We noted demographic characteristics, diseases and medications. Falling episodes, fear of falling, frailty (by modified Fried scale), activities of daily living (ADL) and instrumental activities of daily living (IADL), malnutrition, chronic pain, sleep disorders and depressive mood were assessed. Quality of life was questionned by EQ-5D. We assessed hand-grip strength and evaluated body composition by bioimpedance analysis. We defined sarcopenia by EWGSOP2 definition and obesity by WHO definition.

Results: There were 435 patients; 309 (71%) female. The mean age was 74.5±6.7 years. SO prevalence was 4.8%. Age, frailty, IADL and quality of life had a significant association with SO (p values 0.001, <0.001, 0.02 and <0.001; respectively). Multivariate analyses revealed that frailty, IADL and quality of life were independently associated with SO (Table 1)

Conclusion: This study suggests that SO is related to frailty, functionality and quality of life. More studies are needed to identify factors related with SO as it has become increasingly important in the aging population.

Keywords: sarcopenia; obesity; frailty

Table 1. Factors Associated with Sarcopenic Obesity in the Multivariate Analysis

Variables	*OR (95% CI)*	*p value*
Frailty	7.345 (2.94–18.3)	<0.001
IADL	0.747 (0.615–0.908)	0.003
Decreased quality of life	1.504 (1.194–1.896)	0.001

OR: Odds Ratio, CI: Confidence Interval, IADL: Instrumental Activities of Daily Living

SKELETAL MUSCLE SYSTEM DISORDERS

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THE LONGITUDINAL ASSOCIATIONS OF SARCOPENIA DEFINITIONS WITH ADVERSE OUTCOMES: A COMPARATIVE STUDY

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Background: There is no global consensus definition of sarcopenia despite the great efforts in the recent years. Sarcopenia definitions should prove its association with adverse outcomes that are attributed to sarcopenia. We aimed to study the longitudinal associations of different sarcopenia definitions with functional outcomes.

Methods: We recruited participants admitted to geriatrics outpatient clinics of a university hospital. The patients that have follow-up evaluation for usual gait speed (UGS), activities of daily living (ADL) and instrumental ADL and frailty included. Body composition was assessed by bioimpedance analysis (TANITA BC532). HGS, UGS, ADL, IADL were assessed by Jamar hydraulic hand dynamometer, gait speed at 4 m course, Katz and Lawton scales, respectively. Frailty was screened by FRAIL questionnaire. Sarcopenia was defined by EWGSOP1, EWGSOP2 and the two alternative FNIH definitions. EWGSOP2-sarcopenia was evaluated by universally suggested cut-offs (i. e. 27 and 16 kg). EWGSOP2-probable sarcopenia was assessed also by Turkish cut-offs (i. e. 32 and 22 kg) as an additional parameter alternatively. The patients were assessed for detoriation in UGS, ADL, IADL, FRAIL scores and also for decrease in UGS to <=0.8 m/s and detoriation to frailty.

Results: Among a total of 1881 patients, 264 patients had follow-up data for functional measures and included in the study. The mean age was 75.3±6.3, 195 (73.9%) patients were female with a mean and median follow-up days of 600 and 511 days (Table 1a, 1b). In the first evaluation, the prevalence of sarcopenia ranged between 0.8% -6.1% with standard definitions while it increased to 37% when EWGSOP2-probable sarcopenia was assessed by Turkish cut-offs (probable sarcopenia EWGSOP2-Turkish) (Table 1). The EWGSOP1 or EWGSOP2-confirmed/probable sarcopenia were not associated with adverse outcomes. The EWGSOP2-probable sarcopenia by Turkish cut-offs was associated with detoriation in IADL and decrease in UGS to <=0.8 m/s (p=0.049 and pearson chi square=3.9; p=0.044 and Pearson chi square=4.1, respectively) (Table 2). The FNIH sarcopenia definition including slow UGS was associated with detoriation in IADL (p=0.045, Pearson chi square=5.0) (Table 2). In the regression analysis including age, MNA-SF, number of chronic diseases and drugs, dementia and diabetes none of the regression parameters were associated with adverse outcomes.

Conclusion: In this follow-up study of about 1.5 years, the adverse outcomes associated with sarcopenia were decrease in UGS to <=0.8 m/s and detoriation in IADL. The sarcopenia definitions associated with adverse functional outcomes were EWGSOP2-probable sarcopenia by Turkish cut-offs and FNIH sarcopenia definition including the slow gait speed. EWGSOP2-probable sarcopenia by Turkish cut-offs came forward as having more extensive association with adverse functional outcomes.

Keywords: sarcopenia definitions, frailty, activities of daily living, instrumental activities of daily living

Table 1a

Table 1a. The demographic, functional and sarcopenia-related characteristics of the study population at the first evaluation.

Parameter	
Age	**75.3±6.3**
Sex	
Female	195 (73.9%)
Male	69 (26.1%)
Low SMMI(height)	**9 (3.5%)**
Low SMMI(BMI)	161 (62.9%)
Low HGS (32/22)	**97 (37.0%)**
Low HGS (30/20)	61 (24.5%)
Low HGS (27/16)	**16 (6.1%)**
Low HGS (26/16)	12 (4.6%)
Low UGS (<0.8 m/s)	**82 (31.4%)**
Low UGS (<=0.8 m/s)	84 (32%)
ADL	**5.5±0.5**
IADL	7.1±1.7
Frailty (prefrail+frail)	**95 (46.8%)**
Sarcopenia	
EWGSOP1	**6 (1.9%)**
EWGSOP2-confirmed	**2 (0.8%)**
EWGSOP2-probable (HGS-universal cut-offs)	**16 (6.1%)**
EWGSOP2-probable (HGS-Turkish cut-offs)	**97 (37.0%)**
FNIH definition1 (low HGS+low SMMI)	**10 (3.8%)**
FNIH definition2 (low HGS+low SMMI+low UGS)	**6(2.3%)**

Data are given as mean±standard deviation or number (percentage) as applicable.

HGS: Hand Grip Strength, **UGS:** Usual Gait Speed , **SMMI:** Skeletal Muscle Mass Index, **BMI:**Body Mass Index, **ADL:** Activities of Daily Living, **IADL:** Instrumental Activities of Daily Living

Table 1b

Table 1b. The functional characteristics and follow-up duration of the study population at the second evaluation.

Parameters	
Low HGS (32/22)	**123 (%46.8)**
Low HGS (30/20)	77 (29.3%)
Low HGS (27/16)	**27 (10.3%)**
Low HGS (26/16)	21 (8%)
Low UGS (<0.8 m/s)	**90 (34.1%)**
Low UGS (<=0.8 m/s)	94 (35.6%)
ADL	**5.5±1.4**
IADL	6.8±1.7
Frailty (prefrail+frail)	**113 (%53)**
Follow-up duration (days) (mean, median)	600 (511)

HGS: Hand Grip Strength, **UGS:** Usual Gait Speed, **ADL:** Activities of Daily Living, **IADL:** Instrumental Activities of Daily Living

Table 2

Table 2. Association of definitions of sarcopenia with adverse functional outcomes that are significant in univariate analyses.

Parameter	EWGSOP2-PR sarcopenia (Turkish HGS cut-offs) sarcopenia (+)	sarcopenia (-)	p	FNIH sarcopenia (with slow UGS) sarcopenia (+)	sarcopenia (-)	p
Decrease in UGS<=0.8 m/s	**13/50 (26.0%)**	**17/127 (13.3%)**	**0.044**	**N/A**	**N/A**	**N/A**
Detoriation in IADL	**25/73 (34.2%)**	**23/109 (21.1%)**	**0.049**	**4 /6 (66.6%)**	**45(25.4%)**	**0.045**

The data are given as number (percentage).

*N/A: non applicable

UGS: Usual Gait Speed, **IADL:** Instrumental Activities of Daily Living

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USING SARC-F QUESTIONNAIRE TO IDENTIFY FRAILTY IN THE OLDER ADULTS

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Introduction: The physical phenotype of frailty, described by Fried et. al, shows significant overlap with sarcopenia. EWGSOP2 recommends SARC-F questionnaire to screen for sarcopenia. Considering common features between both conditions, we aimed to investigate whether SARC-F questionnaire could also be a reliable tool to screen or evaluate frailty.

Methods: Community-dwelling older adults aged ≥65 years admitted to the geriatric outpatient clinic were enrolled to the study. Frailty was assessed by modified Fried scale and SARC-F questionnaire were performed to all participants.

Results: 447 patients were included (70.7% female, 29.3% male; mean age: 74.5±6.6 years. 93 (20.8%) were frail according to Fried index. SARC-F cut-off >=1 had sensitivity 91.4% and specificity 44.9%. SARC-F cut-off >=2 presented the best balance between sensitivity and specificity (sensitivity: 74.2% vs specificity: 73.7%) to identify frailty (AUC=0.807; 95% CI: 0.76–0.84, p<0.0001). SARC-F >=4 had high specificity 92.6% with sensitivity 46.2%.

Conclusion: We suggest that SARC-F >=1 point can be used to screen for frailty and SARC-F >=4 to diagnose frailty. SARC-F may be used to evaluate frailty in usual geriatric practice.

Keywords: frailty, sarcopenia, aged, geriatrics

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CUTOFF VALUES TO IDENTIFY LOW MUSCLE MASS BY COMPUTED TOMOGRAPHY AT L3 VERTEBRA LEVEL

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Introduction: Computed tomography (CT) is considered as gold standard for evaluation of total skeletal muscle quantity. Skeletal muscle assessments at L3 vertebra level were revealed to be significantly correlated with whole body muscle measurements (1). Herein, we aimed to provide gender specific cutoff values for psoas muscle mass index (PMI) and skeletal muscle mass index (SMI) at the third lumbar vertebra level in Turkish population.

Material and Method: Preoperative plain CT images of living adult liver donors admitted our hospital transplantation center between June 2010- April 2018 were evaluated to determine psoas muscle area (PMA), PMI, skeletal muscle area (SMA) and SMI at the level of the third lumbar vertebra. Cutoff values using both 5th percentile and two standard deviations were considered to define low muscle mass in total study population, and in younger population aged 18–40.

Results: 601 patients (age 18–59; 326 male, 275 female) were evaluated; 482 (% 80) were young (age 18–40; 268 male, 214 female). In patients aged 20–40 gender specific PMI and SMI by using 5th percentile were calculated as 5.40 cm^2/m^2, 41.42 cm^2/m^2 for males and 3.56 cm^2/m^2, 30.7 cm^2/m^2 for females respectively. In the same age group, gender specific PMI and SMI by using two standard deviations were estimated as 4.62 cm^2/m^2, 38.67 cm^2/m^2 for males and 2.66 cm^2/m, 27.8 cm^2/m^2 for females respectively. In whole study population, gender specific PMI and SMI by using 5th percentile were calculated as 5.34 cm^2/m^2, 41.33 cm^2/m^2 for males and 3.56 cm^2/m, 31.4 cm^2/m^2 for females respectively. In the same age group, gender specific PMI and SMI by using two standard deviations were estimated as 4.46 cm^2/m^2, 37.84 cm^2/m^2 for males and 2.69 cm^2/m^2, 27.82 cm^2/m^2 for females respectively (Table 1). In our study, cutoff values for PMI and SMI were comparable with the other cutoffs reported in so far studied populations (2–5). (Table 2).

Conclusion: Our study provides cutoff values for PMI and SMI at the third lumbar vertebra level for Turkish population with different calculation methods.

Keywords: sarcopenia, cut-off, computed tomography

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Table 1.

Table 1.
Gender specific cutoff values of Psoas Muscle Area, Psoas Muscle Index, Skeletal muscle Mass, Skeletal Muscle Index at lumbar L3 vertebra level

	PMA cm^2		L3-SMA cm^2		PMI cm^2/m^2		L3-SMI cm^2/m^2	
	Men	Women	Men	Women	Men	Women	Men	Women
Aged 18–40 years								
mean+2SD	14.08	6.52	121.2	69.48	4.62	2.66	38.67	27.8
p5	16	9	132	83	5.40	3.56	41.42	30.7
Aged 18–60 years								
mean±2SD	13.45	6.67	118.9	70.17	4.46	2.69	37.84	27.82
p5	16	9	131.35	84	5.34	3.56	41.33	31.14

Table 2.

Table 2. Comparison of the cutoff values of PMI and L3-SMI in different populations

	Van der Werf et al[a].	Derstine et al.(2017)[b]	Derstine et al. (2018)	Hamaguchi et al[c].	Kim et al[d].	Our study (aged 18-40)	Our study (aged 18-60)
Population	Caucasian	American	American	Japanese	Korean	Turkish	Turkish
PMI (cm²/m²)							
Men							
p5						5.40	5.34
mean±2SD				6.36	3.31-5.92	4.62	4.46
Women							
p5						3.56	3.56
mean±2SD				3.92	1.48-4	2.66	2.69
L3-SMI(cm²/m²)							
Men							
p5	43.1					41.42	41.33
mean±2SD	39.7	44.6	45.4			38.67	37.84
Women							
p5	32.7					30.7	31.14
mean±2SD	31.2	34.4	34.4			27. 8	27.82

All of the studies cited in this table were performed among healthy individuals.

[a] the cutoff values of participants aged 20-60. In this study, 94% of the participants was Dutch, %2.6 was European- non Dutch and remaining 3.3% was non European.

[b] the participants were aged 18-40

[c] cutoff values were determined among age <50 years

[d] cutoff values were determined for age decades; participants were aged 20-89

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WHICH PARAMETERS AFFECT GERIATRICIANS'ANTIRESORPTIVE DRUG SELECTION

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Introduction: Osteoporosis is a progressive metabolic bone disease that results in an increased tendency to bone fractures as a result of low bone mass and disruption of the micro-architecture of bone tissue. Antiresorptive drugs (intravenous bisphosphonate, oral bisphosphonate and denosumab) are commonly used in the pharmacological treatment of osteoporosis. In this study, we evaluated the determining factors in our antiresorptive drug preferences in osteoporosis patients who applied to our geriatric outpatient clinic.

Material and Method: In this retrospective study, a total of 90 patients aged 65 and over who applied to our outpatient clinic within a period of 4 months were included. The demographic data of the patients, comprehensive geriatric evaluation results, bone mineral densitometer results, presence of a fracture on the graph, type of antiresorptive drug were recorded. The reasons for the preference of the doctors in the osteoporosis treatment were evaluated with six different categories.

Results: The median age of the patients was 76 (±7.8) years and% 86.7 (n=78) were women. The two most commonly used antiresorptive drugs were zoledronic acid (% 55) and oral bisphosphonate (% 33), respectively. The most important reason for drug selection was personal opinion (% 51.1). The second reason was to continue the previous preferred drug (% 27.8). The median score of the Mini-mental state examination score was significantly lower in the intravenous bisphosphonate group [24 points (10–30)] than the oral bisphosphonate group [28 points (20–30)] (P=0.003). Besides, one of the primary reasons for determining antiresorptive treatment options was the degree of the patients' frailty.

Discussions: In this study, we have shown that the degree of frailty and cognition status play an essential role in doctors' choice of osteoporosis drugs. Evaluation of cognition status and frailty might help improve to determine the best treatment option for elderly patients.

Keywords: antiresorbtive drug selection, frailty, cognition

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ASSESSMENT OF OSTEOPOROSIS AND OSTEOPOROSIS SCREENING STATUS IN ELDERLY PEOPLE WITH AND WITHOUT DIABETES MELLITUS

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Objective: The issue that bone mass density (BMD) scores show any difference between patients with or without diabetes mellitus (DM) is still debating. However, it was demonstrated that DM patients faced elevated risk of osteoporotic fracture than non-DM patients, even if they have same T-scores. So, screening of DM patients with dual-energy x-ray absorptiometry (DEXA) as suggested by US National Osteoporosis Foundation (NOF) is vital. In this study, we aimed to reveal that whether BMD scores are different between patients with or without DM and whether DM patients screened for osteoporosis at the time that suggested by NOF or not.

Material and Method: Non-institutionalized geriatric patients with and without DM were enrolled. The age at which the first DEXA scan was performed was recorded. If DEXA scan is suggested by the NOF guideline on basis of age indication and did not performed in last year, a DEXA scan was performed.

Results: 197 females, 29 males and a total of 226 individuals were enrolled and the mean age was 73.56±6.03.67 (28.8%) of patients were diabetic. T-score values of lumbar total (DM (+): -1.58; DM (-): -1.87; p=0.250), femur total (DM (+): -0.89; DM (-): -1.18; p=0.147), femur neck (DM (+): -1.36; DM (-): -1.54; p=0.288) and osteoporosis prevalence (DM (+): 40% ; DM (-): 44% ; p=0.724) showed no significant difference between groups. Late screening ratios were significantly higher in DM group (64.2% and 47.8%, respectively, p=0.029).

Conclusion: No significant difference was detected between BMD scores of patients with or without DM. Despite reliable data that shows osteoporotic fracture risk is higher among DM patients, on-time screening rates of DM patients were significantly lower.

Keywords: osteoporosis, screening, diabetes mellitus,

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THE EFFECT OF OSTEOSARCOPENIA ON COMPREHENSIVE GERIATRIC ASSESSMENT, CLINICAL FRAILTY SCORE AND MORTALITY.

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Background: Osteosarcopenia is a relatively newly defined syndrome in older people, defined as the coexistence of osteoporosis and sarcopenia.

Aims: To determine whether osteosarcopenia (OSP) has a greater effect on daily living activities, fraility, mortality, comorbidities and laboratory values than osteoporosis (OP) and sarcopenia (SP).

Methods: This cross-sectional study included patients aged 65 and over who underwent bone mineral densitometry (BMD) and bioelectrical impedance (BIA) tests between 2013–2019. Comprehensive geriatric assessment, comorbidities and frailty scores of the patients were recorded from files. Mortality detection was performed using the Health Public Health Agency of Death System'. Sarcopenia was diagnosed according to the European Working Group on Sarcopenia in Older People and osteopenia/osteoporosis was diagnosed according to the World Health Organisation criteria.

Results: The mean age of 306 patients (199 women, 65%) was 76.93±7.03. The prevalence of each category (normal, OP, SP and OSP) was 40.8%, 17.0%, 19.0% and 23.2%, respectively. In the comparison between groups, the mean age of the OSP group was significantly higher than the other groups. (79.41±7.21, p<0.001). Katz, Lawton-Brody, Mini-Mental State Exam (MMSE) and Mini Nutritional Assessment (MNA) scores were significantly lower in the OSP group (p values were 0.014; 0.005; <0.001; <0.001, respectively). The clinical frailty score was highest in OSP, consistent with frailty (p: 0.001). When mortality of the patients was examined, 73 (23.8%) of the 306 patients died. Mortality rate was highest in the OSP group (37%, p: 0.014).

Conclusion: It was shown that osteosarcopenia, which is the most serious and last stage of bone and muscle loss combination, can cause physical and cognitive dependence, frailty and mortality, which are the most feared conditions in older people. Osteoporosis and sarcopenia should be screened together and preventive measures should be taken before they become serious.

Keywords: older people, osteosarcopenia, osteoporosis, sarcopenia, comprehensive geriatric assessment, frailty, mortality

Table 1. Comparison of Patient's Comprehensive Geriatric Assessment Tests, Frailty, Mortality

	Normal n (%)	*OP n (%)*	*SP n (%)*	*OSP n (%)*	*All*	*p value*
n (%)	125 (40.8)	52 (17.0)	58 (19.0)	71 (23.2)	306	
Age	75.10±7.07	76.96±6.81	77.67±5.80	79.41±7.21	76.9±7.27	<0.001
Katz ADL	5.34±1.48	4.77±2.03	4.90±2.05	4.49±2.02	4.96±1.85	0.014
LB-IADL	6.58±2.16	5.77±2.79	6.02±2.71	5.21±3.07	6.02±2.65	0.005
MMSA	23.5±5.35	21.40±6.45	22.31±6.74	18.93±8.40	21.82±6.98	<0.001
MNA-SF	12.13±1.66	11.87±1.63	11.56±2.21	10.29±3.19	11.5±2.31	<0.001
GDS	3.92±3.85	5.90±7.41	6.04±2.85	4.07±3.57	4.67±3.21	0.163
4 m walking speed (m/sn)	0.6±0.26	0.47±0.27	0.70±0.38	0.51±0.40	0.58±0.51	0.114
Handgrip Strength (kg)	20.77±7.91	17.9±18.17	17.61±7.16	13.6±6.46	18.05±8.03	<0.001
Clinical Frailty Score	4.04±1.54	4.57±1.58	4.74±1.43	4.90±1.50	4.46±1.55	0.001
Mortality n (%)	23 (31.5)	12 (16.5)	11 (15.1)	27 (37.0)	73	0.014

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BONE DENSITY LOSS AND OSTEOPOROSIS AMONG OLDER ADULTS WITH ALZHEIMER'S DISEASE, VASCULAR DEMENTIA, AND MIXED DEMENTIA

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Background: Current evidence suggests that patients with osteoporosis have a higher risk of developing Alzheimer's disease (AD). We examined bone mineral density (BMD) and osteoporosis in subjects with dementia and normal cognitive status with a focus on gender and the type, severity or length of dementia diagnosis.

Materials and Methods: We compared older persons with AD, vascular dementia (VaD) or mixed dementia (AD-VaD) with age– and gender-matched controls. We used dual-energy X-ray absorptiometry (DXA) to measure BMD of the lumbar spine, total hip, and femoral neck.

Results: Overall, 363 participants were enrolled prospectively (Mean age ± SD: 78.4±5.4 years, female: 62.5%). Controlled for age and gender, demented (n=93) and non-demented (n=270) participants had similar BMD (g/cm2) at lumbar spine [F (1, 358): 0.83, p=363] but lower values of BMD at total hip [F (1, 359): 10.26, p=0.001] and femoral neck [F (1, 359): 15.21, p<0.001] were found in patients with dementia. Adjusted percentage of osteoporosis and low bone mass based on total hip and femoral neck T-scores were

also significantly higher in this group. Mean BMD values, frequency of osteoporosis and low bone mass did not differ according to the subtype of dementia, gender, disease duration or disease severity.

Conclusions: We found that demented elders had lower BMD and higher frequency of osteoporosis at the hip but not at the lumbar spine, regardless of gender and characteristics of dementia. Our results also indicated that not only AD but also VaD and AD-VaD might be associated with bone loss at the hip.

Keywords: osteoporosis, dementia, Alzheimer's disease, vascular dementia

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PERFORMANCE OF SARC-F TO FIND CASES OF PROBABLE SARCOPENIA IN OLDER ADULTS

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Introduction: Sarcopenia is a progressive and generalised skeletal muscle disorder that is associated with increased likelihood of adverse outcomes including falls, fractures, physical disability and mortality. In 2018 European Working Group on Sarcopenia in Older People (EWGSOP-2) uses low muscle strength as the primary parameter of sarcopenia; muscle strength is presently the most reliable measure of muscle function. Specifically, sarcopenia is probable when low muscle strength is detected. Also EWGSOP recommends use of the SARC-F questionnaire as a way to elicit self-reports from patients on signs that are characteristic of sarcopenia. The aim of the study is to demonstrate the ability of the Turkish version SARC-F to predict probable sarcopenia in older patients.

Methods: Community-dwelling older adults aged ≥65 years, 456 individuals admitting to a geriatric outpatient clinic were enrolled to study. Probable sarcopenia was diagnosed according to the EWGSOP 2 criteria. Muscle strength was assesed by hand grip strength. Hand grip strength was assessed by Jamar hydraulic hand dynamometer.

Results: 456 patients were analyzed with a comprehensive geriatric assessment. The sample was composed of women 71.1% and men 28.9% with mean age of 74.57±6.64 years. Among the patients in the sample, 58 of them (12.7%) had probable sarcopenia. SARC-F with a cut-off point of 2 had a sensitivity of 64.9% and a specificity of 80% to detect probable sarcopenic patients. The sensitivity is the highest when the cut off point ≥1 (84.2%). SARC-F with a cut-off point of 4 had a sensitivity of 33.3% and a specificity of 92.05%. For the estimation of probable sarcopenia, the area under the receiver operating characteristics curve of SARC-F was 0.710 (95% Cl: 0.66–0.752).

Conclusions: SARC-F is suggested to be one of the best tools to evaluate sarcopenia in practice. It has a high specificity. Our findings suggest that SARC-F is quite successful test to exclude muscle function impairment and probable sarcopenia. We suggest SARC-F ≥1 cut-off point to be used as the sarcopenia screening tool regarding its high sensitivity. SARC-F ≥4 cut-off is better to be used if one prefers to exclude low muscle strength and probable sarcopenia.

Keywords: sarcopenia, hand grip strength, probable sarcopenia

SKELETAL MUSCLE SYSTEM DISORDERS

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SARCOPENIA EVALUATION WITH COMPUTERIZED TOMOGRAPHY IN TRAUMA PATIENTS

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Objective: Sarcopenia is defined as skeletal muscle dysfunction associated with age, chronic diseases, cancer, nutrition problems and physical inactivity. Early detection of sarcopenia in older adults and patients is important to prevent morbidity, functional decline and death and the diagnos is requires assessment of muscle mass, muscle strength and physical performance. Skeletal muscle cross-sectional area from the abdomen, is strongly correlated to whole body muscle distribution (1). Cross-sectional skeletal muscle area (SMA, cm^2) at this level is highly correlated with total body skeletal muscle mass (2). Further more, it provides the ability to determine muscle radiation attenuation (SMRA, Hounsfield Units (HU)), a measure of muscle quality which is inversely related to muscle fat content. Another advantage is that abdominal CT scans are conducted as part of routine care in several patient populations. In these patient populations this method can be used for muscle analysis without additional burden to the patient (3). In this study, we aimed to draw attention to the need CT imaging cut-off values according to age and gender in terms of sarcopenia in our country by showing that muscle area and density measured by cross-sectional CT varies according to age and gender.

Materials and Methods: 265 patients 18 years and older who applied to our hospital's emergency department due to trauma in January, February, and March 2019 were selected for this study, if they had undergone unenhanced CT and L4 vertebra level is included in the image area. In sections crossing the L4 vertebra level, the right and left psoas muscle area of the patients were summed and their sum was taken as SMA. For SMRA, arithmetic averages were taken by summing the right and left psoas muscle density averages.

Results: The average age was 53.82 years, 132 (49.8%) patients were women. The patients were divided into two groups according to their ages. There were 166 patients (62.6%) between the ages of 18–64 and, 99 patients (37.4%) aged 65 and over. In patients 65 years and older, the number of women was 68 and the number of men was 31. The average of SMA in all age groups was 19.12. This value was 22.89 in patients under 65 years of age and was 12.80 in patients 65 years and older. The average of SMRA in all age groups was 38.26. This value was 43.80 in patients under 65 years of age and was 28.97 in patients 65 years and older. Pearson correlation test was performed to evaluate the correlation between SMA and SMRA values by age. A statistically significant negative correlation was found between SMA and SMRA values and age. For SMA, r=-0.616, p=0.00 and for SMRA r=-0.750, p=0.00 were found. T test was performed to compare SMA and SMRA averages in elderly and young group. The difference between the averages in all was found very significant (p=0.00).

Discussion and Conclusion: It is well shown that, sarcopenia is associated with multiple adverse out comes such as comorbidities, poor physical performance, physical disability, depression, hospitalisation, functional decline and falls, causing the patient worse quality of life. CT is regarded as the gold-standard method to evaluate body composition and the presence of sarcopenia. The European Working Group on Sarcopenia in Older People recommends the use of data from healthy young adults, with cut-off points at two standard

deviations below the mean reference value. Therefore, the definition of sarcopenia can vary depending on the characteristics of the reference population, such as age, race, and country. For the diagnosis of sarcopenia by CT, each community's own cut-off values should be determined separately for women and men. Our study is not wide enough to design a reliable cut-off value. However, CT is a common diagnostic method in our country. It will be useful to determine cut-off values in women and men for the diagnosis of sarcopenia with retrospectively and appropriately designed multicentre studies. So if CTs obtained for different reasons in patients aged 65 and over interpreted by the radiologist, SMA and SMRA values measurements can be included in routine reporting and contributed to the diagnosis of sarcopenia. In our study, we wanted to draw attention to the need for CT imaging cut-off values according to age and gender in terms of sarcopenia in our country. More studies are needed in the future.

Keywords: sarcopenia, computerized tomography

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Figure 1. CT image

UROLOGICAL DISORDERS

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THE PREVALENCE AND RISK FACTORS FOR URINARY INCONTINENCE AMONG INPATIENTS, A MULTICENTER STUDY FROM TURKEY, LPZ STUDY

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Objective: To determine the prevalence and the factors associated with urinary incontinence (UI) among inpatients in Turkey.

Method: The population of this study comprised of patients screened by the "National Prevalence Measurement of Quality of Care (LPZ)" study in 2017 and 2018. Age, gender, comorbidities, length of hospital stay, sedative medications, SARC-F score, anthropometric measurements, and care parameters such as malnutrition, falls, UI-fecal incontinence (FI), restraints, and care dependency score (CDS) were noted. The LPZ questionnaire was performed by trained researchers, and multiple logistic regression analysis was performed to determine the factors associated with UI.

Results: The prevalence of UI was 29.4% among 1176 inpatients, and 41.6% in patients ≥65 years. Urinary incontinence was associated with older age (OR, 1.966, 95% CI 1.330–2.905), female sex (OR, 2.055, 95% CI 1.393–3.030), CDS (OR, 3.236, 95% CI 2.080–5.035), the number of comorbidities (OR, 1.312, 95% CI 1.106–1.556), end-of-life management (OR, 3.156, 95% CI 1.412–7.052), sedative medications (OR, 1.981, 95% CI 1.230–3.191), and FI (OR, 12.533, 95% CI 4.892–32.112) in all adults, where CDS (OR, 2.589, 95% CI 1.458–4.599), end-of-life management (OR, 2.851, 95% CI 1.095–7.424), sedative medications (OR, 2.529, 95% CI 1.406–4.548), and FI (OR, 13.138, 95% CI 4.352–39.661) were associated with UI among geriatric patients.

Conclusions: The factors associated with UI in geriatric and all adult inpatients are CDS, sedative medications, end-of-life management, and FI plus older age, female sex, and comorbidities for the latter. The factors associated with UI vary in different age groups.

LPZ Turkey Study Group: Sumru Savas, Bülent Saka, Sibel Akin, Ilker Tasci, Pinar Tosun Tasar, Asli Tufan, Hakan Yavuzer, Cafer Balci, Gülbüz Sezgin, Mehmet Akif Karan.

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Keywords: urinary incontinence, hospitalization, risk factor, older adults, prevalence

Partially reported at 15th International Congress of the European Geriatric Medicine Society, 25–27 September 2019, Krakow, Polonia as a poster entitled; Annual screening may provide better care for urinary incontinence associated dermatitis at the hospitals.

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A SINGLE-CENTERED PROSPECTIVE STUDY ON EFFICACY OF URINARY INCONTINENCE TREATMENT ON QUALITY OF LIFE AND DEPRESSION

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Introduction: Urinary incontinence (UI) is an important problem of health, can occur at any age, but is especially common in elderly women (1). Depression and anxiety are also considerable problems of elderly. UI is one of the geriatric syndromes that thought to be related with depression and quality of life (QOL). It can be suggested that treatment of UI may improve QOL and cause decrement in comorbidities. In this study, we aimed to evaluate effect of UI treatment on life quality, depression, anxiety, disability and geriatric syndromes.

Material and Methods: This prospective study was conducted for a period of 6 months from August 2019 to February 2020. Women applied to outpatient clinic of geriatrics with UI symptoms were taken in the study. Type of UI was determined by using the 3 Incontinence Questions (3IQ). Only, patients with urge incontinence were included to the study. Patients were evaluated for QOL, anxiety, depression, disability and geriatric syndromes before and after treatment. QOL was assessed by using International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF) and Incontinence of Quality of Life Questionnaire (I-QOL). Anxiety and depression was assessed with Hospital Anxiety and Depression scale (HADs). Comprehensive geriatric assessments, SARC-F, hand grip test, bioimpedance analysis, 4-meter gait speed test and FRAIL scale were done to all patients. Data analysis was done by using SPSS version 22.

Results: The study population was composed of 42 women; mean age was 69.7 +/– 4.3 years. QOL (assessed with ICIQ-SF and I-QOL) was found to be positively affected from treatment. Anxiety and depression symptoms were revealed to be improved after treatment. Daily activities of living (ADL) were better after treatment. Results were depicted in table-1. ADL and I-QOL scores were positively correlated with treatment. ICIQ-SF, HADs scores were negatively correlated with treatment (table-2). ICIQ-SF, I-QOL and HADs scores were associated with UI treatment when evaluated with one-way MANOVA (F [4, 79]=3.25, p=0.00, Wilk's Λ=0.859, partial η2=0.14).

Discussion: UI is a common problem in elderly. Patients usually hesitate to tell this complaint to even doctors. That situation affects their physical and psychological condition negatively (2). In this study, we reached that anticholinergic treatment (fesoterodin) improved life QOL and psychological symptoms. Those findings represented us proper treatment of UI is critical for healthy ageing. There were statistically insignificant improvements in SARC-F, handgrip strength, IADL (instrumental activities of daily living), MNA-SF (mini nutritional test assessment– short form) and FRAIL scale after treatment. In order to explain those relationships studies with larger populations were needed. Our study is unique because there was no study that evaluated the effect of anticholinergic treatment on life quality, anxiety and depression in patients with UI.

Keywords: urinary incontinence, anticholinergic, fesoterodin, quality of life, depression, anxiety

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Table 1. Comparison of parameters before and after treatment

	Before treatment (mean ± SD)	*After treatment (mean ± SD)*	*p=*
SARC-F	3.12±1.89	3.07±2.08	0.91
hand grip strength (kg)	22.86±8.76	25.52±9.42	0.82
muscle mass (kg)	44.87±6.14	44.68±5.94	0.89
SMMI (kg/m^2) (skeletal muscle mass index)	19.57±2.90	19.28±2.62	0.64
gait speed (m/s)	0.69±0.22	0.70±0.25	0.76
ADL (Katz)	4.86±0.47	5.12±0.70	0.049*
IADL (Lawton-Brody)	6.48±2.04	6.71±1.97	0.59
MMT (minimental test)	25.57±4.92	27.07±3.27	0.1
MNA-SF	11.52±2.05	12.17±1.71	0.12
ICIQ-SF	13.14±4.08	10.12±5.46	0.005*
I-QOL	65.40±21.50	75.95±19.10	0.02*
HADs– A	10.17±4.07	7.83±5.03	0.022*
HADs-D	8.93±4.09	6.14±5.82	0.013*
FRAIL	2.67±1.20	2.24±1.10	0.09

Table 2. Relationship between parameters and treatment status

	Treatment status
SARC-F	p=0.96
Hand grip strength (kg)	p=0.18
Muscle mass (kg)	p=0.89
SMMI (kg/m^2)	p=0.64
Gait speed (m/s)	p=0.76
ADL (Katz)	p=0.007; r=0.292**
IADL (Lawton-Brody)	p=0.62
MMT	p=0.1
MNA-SF	p=0.14
ICIQ-SF	p=0.006; r=– 0.304**
I-QOL	p=0.02; r=0.232*
HADs– A	p=0.022; r=– 0.279*
HADs-D	p=0.002; r=– 0.349**
FRAIL	p=0.11

UROLOGICAL DISORDERS

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THE RELATIONSHIP BETWEEN PELVIC FLOOR MUSCLE STRENGTH, HANDGRIP STRENGTH AND SARCOPENIA IN URINARY INCONTINENCE PATIENTS

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Objective: To evaluate the relationship between pelvic floor muscle strength which measured with perineometer device and sarcopenia in patients with urinary incontinence (UI).

Material-Method: Female patients were included in the study who admitted to geriatrics and urology outpatient clinics with UI. Their urinary incontinence type was determined with anamnesis, physical examination, comprehensive geriatric assessment and urodynamics. Patients who had neurogenic bladder, pelvic region operation or RT, temporary UI, and cognitive dysfunction were excluded from the study. Demographic characteristics, comorbidities, number of drugs, anthropometric measurements were recorded. "Probable sarcopenia" and sarcopenia were determined according to the EWSGOP2 criteria with handgrip strength, 6 meters walking speed and bioimpedance analysis (BIA). The pelvic floor muscle strengths of the patients were measured with the vaginal probe of the IEASE perineometer device and recorded as mmHg.

Results: 97 female with UI were included in the study. 5 people were excluded from the study. 2 people had a normal urodynamic result and 3 people refused the physical examination. According to age, <60 (n: 47), ≥60 (n: 45) 2 groups were formed. Stress (n: 48), urge (n: 22), mixed (n: 22) incontinence groups were determined according to urodynamics. In both age groups; there was no significant difference in demographic data, comorbidities and polypharmacy between the incontinence types (Table 1, Table 2). In patients aged 60 years and older; the waist circumference, weight and BMI were significantly higher within the stress and mixed incontinence than with the urge incontinence (p: 0.027, p: 0.014, p: 0.006, respectively) (Table 2). In both age groups, there was no significant relationship between handgrip strength and walking time with incontinence types. In the elderly group, BIA was significantly lower within the urge incontinence type than the other types (p: 0.023). Pelvic muscle strength was subjectively determined by vaginal examination. The relationship between vaginal examination and incontinence types were evaluated. Also in the younger group with the urge incontinence type's pelvic muscle strength was sufficient; but the stress and mixed incontinence type's pelvic muscle strength were insufficient (p: 0.003). There was no significant difference in the elderly group. In the young group, there was no difference in the perineometer measurements between the probable sarcopenia and sarcopenia (n=17) with "not sarcopenic" (n=30). Lower perineometer measurements values were observed between probable sarcopenia and sarcopenia (n=21) with "not sarcopenia" (n=24) in the older group (p: 0.040). When the young and old probable sarcopenia and sarcopenia groups were compared, there was no significant difference between the perineometer measurements of both groups. When regarded independently from groups that while age increased; the handgrip strength decreased (p<0.001 r: -0.404), the walking time was longer (p<0.001 r: 0.491). When analyzed by age groups; perineometer and handgrip strength significantly decreased (p: 0.013 r: -0.369; p: 0.006 r: -0.467 respectively); walking time significantly was longer (p: 0.007 r: 0.397) as the age increased in the older group. Handgrip strength decreased (0.001 r: -0.467) as the age increases; but there was no significant correlation between age with walking time and perineometer in the young group. It was found that as the handgrip strength increased, the perineometer increased (p: 0.009 r: 0.383) in the elderly and there was no significant relationship in the young group (Table 3).

Conclusion: Independent of the type of incontinence, in the elderly patients with the probable sarcopenia and sarcopenia, while handgrip strength tests decrease, the perineometer measurements also decrease. Although both the use of perineometer and handgrip strength test can predict urinary incontinence, it is thought that handgrip strength test can be more useful in clinical use because it is non-invasive and easy to apply.

Keywords: handgrip strength test, perineometer, pelvic floor muscle strength, sarcopenia, urinary incontinence

Table 1. Demographic characteristics, antropometric measurements and sarcopenia criteria according to incontinence types in <60 age group

	Stress (n: 31)	*Urge (n: 7)*	*Mixed (n: 9)*	*Total (n: 47)*	*P value*
Age	49.16±7.8	50.14±8.2	45.89±11.2	48.68±8.5	0.542
Height (m)	1.58±0.05	1.56±0.05	1.6±0.06	1.58±0.05	0.485
Weight (kg)	73.6±12.9	74.5±6.8	80.3±15.2	75±12.7	0.388
Waist Circumference (cm)	94.6±10.1	99±5.1	101.5±16	96.6±11.1	0.221
BMI	29.4±5.3	30.4±2.5	31.2±6.3	29.9±5.2	0.656
Polipharmacy (≥4 medicine)	3 (% 37.5)	2 (% 25)	3 (% 37.5)	8	0.170
≥2 Comorbidity	6 (% 46)	3 (% 23)	4 (% 31)	13	0.208
BIA	10.2±0.9	10.8±0.7	10.5±0.9	10.4±0.9	0.323
Handgrip strength	20.5±5.8	18.2±5.9	20.5±8.3	20.1±6.2	0.686
Walking time (second)	6.5±2.1	6.4±1.5	7.3±2.3	6.6±2	0.561
ICIQ-SF	14.2±3.4	14.8±3	15.8±4.5	14.6±3.6	0.498
Number of vaginal births	1.9±1.5	2.1±1.2	2.3±1.6	2±1.5	0.747
Number of pregnancy	3.1±2	3.5±1.2	3.7±2.6	3.3±2	0.695

Table 2. Demographic characteristics, antropometric measurements and sarcopenia criteria according to incontinence types in ≥60 age group

	Stress (n: 17)	*Urge (n: 15)*	*Mixed (n: 13)*	*Total (n: 45)*	*P value*
Age	70.5±7.2	70.4±7.4	69.5±6.7	70.2±7	0.914
Height (m)	1.55±0.04	1.54±0.05	1.55±0.05	1.55±0.05	0.930
Weight (kg)	79.1±12.7	68.6±10	84.4±14.4	77.1±13.7	0.005
Waist Circumference (cm)	108.5±8.7	99.4±9.9	113.3±17.4	106.8±13.2	0.014
BMI	32.8±4.6	28.7±4.2	34.8±4.7	32±5.1	0.003
Polipharmacy (≥4 medicine)	7 (% 37)	7 (% 37)	5 (% 26)	19	0.903
≥2 Comorbidity	11 (% 52)	6 (% 28.5)	4 (% 19.5)	21	0.149
BIA	10.9±1	9.9±1.2	11.1±1.2	10.6±1.2	0.020
Handgrip strength	18.9±3.4	16.5±4.6	18.9±5.4	18.1±4.5	0.262
Walking time (second)	10.1±5.8	10.8±5.7	10.9±5.6	10.6±5.6	0.928
ICIQ-SF	12.7±4.9	12.6±4	14.3±2.8	13.1±4.1	0.497
Number of vaginal births	3.7±2.2	3.9±2.1	4.3±1.9	3.9±2	0.742
Number of pregnancy	5.1±2.2	5.4±2.2	6.9±3.6	5.7±2.7	0.181

Table 3. Relationship between perineometer with demographic characteristics, antropometric measurements and sarcopenia criteria in both age groups

	Perineometer <60 age		*Perineometer ≥60 age*	
	P value	r value	P value	r value
Age	0.795	-0.039	0.013	-0.369
Height (m)	0.235	0.176	0.448	0.116
Weight (kg)	0.072	0.265	0.085	0.260
Waist Circumference (cm)	0.312	0.151	0.961	0.008
BMI	0.222	0.182	0.104	0.245
BIA	0.665	0.065	0.136	0.226
Handgrip strength	0.433	0.117	0.009	0.383
Walking time (second)	0.405	-0.124	0.257	-0.173
Number of vaginal births	0.556	-0.088	0.288	-0.162
Number of pregnancy	0.662	-0.065	0.574	-0.086
SARC-F	0.659	Not rated	0.468	Not rated
Probable sarcopenia + sarcopenia	0.491	Not rated	0.040	Not rated
Physical examination	0.390	Not rated	0.867	Not rated

UROLOGICAL DISORDERS

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THE COMPARISON OF KIDNEY BIOPSY RESULTS BETWEEN GERIATRIC AND NON-GERIATRIC PATIENTS: SINGLE CENTER EXPERIENCE

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Aim: Renal biopsy is the inevitable diagnostic method in the elderly as in all other age groups in case of nephrotic syndrome and acute kidney injury with unknown etiology. Renal biopsy prevents unnecessary treatments and provides prognostic data. So advanced age should not be the sole contraindication for renal biopsy. The aim of our study is to compare the biopsy indications and results between geriatric and non-geriatric patients in our center.

Patients and Methods: This retrospective study identified all patients aged over 16 whose native renal biopsy specimens were processed at the renal pathology laboratory during a period from May 2015 to January 2020. During this time, a total of 74 native renal biopsies were analyzed, of which 21 (28.3%) were from patients over 60 year (geriatric), and 53 (71.7%) from patients under 60 year (non-geriatric). Each specimen was examined with light and immunofluorescence microscopy. The biopsy indications were determined as 1. Nephrotic syndrome 2. Nephritic syndrome (including rapidly progressive glomerulonephritis) 3. Mixed nephrotic syndrome 4. Asymptomatic urinary abnormalities 5. Acute kidney injury with unknown etiology 6. Chronic progressive kidney disease with unknown etiology. The clinical and laboratory data, biopsy indications and biopsy diagnosis recorded to SPSS 14.0 database.

Findings: The biopsy indications (Table 1) were similar in non-geriatric and geriatric groups. Nephrotic syndrome was the most common indication in both groups (35.8% and 33.3%, respectively). Glomerular diseases constitute 90% and 71% of the biopsies in non-geriatric and geriatric groups, respectively, whereas tubulointerstisial diseases account for% 10 and% 29. Minimal change disease and membranous nephropathy (both two cases) are frequently diagnosed in the geriatric group based on biopsy specimens from patients with nephrotic syndrome. Interestingly minimal change disease was the most diagnosis in the non-geriatric group with nephrotic syndrome. Pauci-immune ANCA positive crescentic glomerulonephritis and amyloidosis (both two cases) were the most common secondary glomerular disease in the elderly, whereas diabetic nephropathy was most common in younger patients. (Table 2) In the geriatric group who have minimal change disease, pauci-immune, ANCA positive crescentic glomerulonephritis and interstitial nephritis, respectively, had benefited from therapeutic intervention.

Conclusion: Percutaneous renal biopsy provides clinically useful information about the elderly because clinical presentation and the predicted diagnosis sometimes vary.

Keywords: glomerulonephritis, kidney biopsy, nephrotic syndrome

Table 1. Biopsy indications in non-geriatric and geriatric groups

Biopsy indication	*Non-geriatric n (%)*	*Geriatric n (%)*
Nephrotic syndrome	19 (35.8)	7 (33.3)
Nephritic syndrome (including RPGN)	12 (22.6)	5 (23.8)
Mixed nephrotic syndrome	4 (7.5)	1 (4.8)
Asymptomatic urinary abnormalities	8 (15.1)	1 (4.8)
Acute kidney injury with unknown etiology	8 (15.1)	5 (23.8)
Chronic progressive kidney disease with unknown etiology	2 (3.8)	2 (9.5)
Total	53 (100)	21 (100)

RPGN: Rapidly progressive glomerulonephritis

Table 2. Primary and secondary glomerular diseases in non-geriatric and geriatric groups

		n (%)	*n (%)*
Primary glomerular diseases	IgA nephropathy	12 (38.7)	1 (14.3)
	Membranous nephropathy	3 (9.7)	2 (28.6)
	FSGS	4 (12.9)	1 (14.3)
	Minimal change disease	8 (25.8)	2 (28.6)
	Mesangioproliferative glomerulonephritis (except IgA nephroapthy))	2 (6.5)	1 (14.3)
	Others	2 (6.5)	0 (0)
	Total	31 (100)	7 (100)
Secondary glomerular diseases	Amyloidosis	2 (11.8)	2 (25)
	Pauci-immune ANCA positive crescentic glomerulonephritis	1 (5.9)	2 (25)
	Hypertensive nephrosclerosis	2 (11.8)	0 (0)
	Lupus nephritis	2 (11.8)	0 (0)
	Diabetic nephropathy	4 (23.5)	1 (12.5)
	Secondary FSGS	3 (17.6)	1 (12.5)
	Thrombotic microanjiopathy	2 (11.8)	0 (0)
	Others	1 (5.9)	2 (25)
	Total	17 (100)	7 (100)

FSGS: focal segmental glomerulosclerosis

PHYSICAL ACTIVITY

SS – 134

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ASSOCIATIONS BETWEEN POLYPHARMACY AND PHYSICAL PERFORMANCE MEASURES IN OLDER ADULTS

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Introduction: Polypharmacy is a common problem seen in older adults and associated with adverse outcomes like falls and fractures. Ambulation is an indicator of good functionality and health status. Therefore, the association of polypharmacy and physical performance measures is an issue needs to be enlightened. Our aim is to study association of polypharmacy with physical performance measures.

Material and Methods: The study is conducted in a geriatric outpatient clinic on adults older than 60 years old. Using ≥5 medications is accepted as polypharmacy. Usual gait speed (UGS), hand grip strength (HGS), chair sit-to-stand test (CSST), timed up and go test (TUG) and short physical perforance battery (SPPB) were performed to assess physical performance status.

Results: There were 440 participants, 70% were female. Mean age was 73.7±6.6. Polypharmacy was seen in 61.6% of participants. All of the physical performance measures studied were associated with polypharmacy. According to multivariate analysis, only UGS was independently associated with polypharmacy.

Conclusion: Polypharmacy may cause impairment in walking and this may be the keypoint of its relationship with falls, fractures and disabilities. Vice versa, impaired physical performance may result in use of more drugs. Further studies are needed to understand the bidirectional association of polypharmacy and physical performance.

Keywords: polypharmacy, physical performance, older

Akademik Geriatri Derneği

e-Kongre 2020

COVID-19 ve Geriatride Güncelleme

POSTER BİLDİRİLER

HEMATOLOGIC AND ONCOLOGIC DISORDERS

PS – 01

A RARE CASE IN THE ELDERLY: DOUBLE PRIMARY PENILE AND BLADDER CANCER

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Background: Penile cancer is a very rare tumor. Although rare, it is a cause of high morbidity and mortality. Management can be very complicated. More aggressive surgical treatments are prioritized, as aesthetics and functionality are kept in the background in the elderly. The number of cases is increasing steadily. It is generally seen in advanced age. Bladder Cancer is a relatively rare cancer that is more common in the elderly.

Case: A 84-year-old male patient was admitted to our outpatient clinic for a week-long and exacerbated dream, not eating, sleep disorder. He was suffering from hypertension and COPD. Bone metastasis was detected during follow-up. Approximately six months before admission to our outpatient clinic, he was evaluated by urology for lesion on the penis. He was diagnosed with penil squamous cell cancer. The tumor was found to be the second primary, and in 03/2019 the patient had a total penectomy.

In the physical examination of the patient: the general situation is medium. consciousness is OK. orientation cooperation is limited. Conjunctiva pale, dry oral mucosa, bladder catheter +, other system examinations are normal. Laboratory results are summarized in Table-1. Urinary tract infection was detected during the examinations of the patient. He was hospitalized. Ceftriaxone 2x1 g was started due to the height of the acute phase reactants and leukocytosis. However, because of the lack of laboratory and clinical responses to antibiotic therapy, teikoplanin was added. Then tigecycline and meropenem were started. His consciousness deteriorated in his follow-up. The patient with metastatic bladder cancer needed positive inotropic. In the first month of hospitalization, the patient died due to metastatic bladder ca + penile ca + sepsis + multiple organ failure.

Result: The symptoms of an elderly person who has previously been diagnosed with cancer should not be attributed to his formerly detected disease. In order not to overlook rare diseases such as penile cancer, anamnesis and physical examination should be given importance.

Keywords: elderly, rare cancer, penile cancer, bladder cancer

Table 1. Patient's Laboratory Values

	Normal	*07/10/2019*	*17/10/2019*	*4/11/2019*
Glucose mg/dL	70–99	101	69*	68*
Creatinine mg/dL	0.7–1.3	1.7*	1.5*	1.8*
T. Protein g/L	57–82	69	57	48
Albümin g/L	(32 – 48)	31	24	16
AST U/L	<35	16	12	59
ALT U/L	<50	9	5	7
Calcium (Ca) mg/dL	8.7–10.4	8.9	7.2*	6.7*
Sodium (Na) mEq/L	132–146	137	141	138
Potassium (K) mEq/L	3.5–5.5	4.5	4.4	4.6
TSH uIU/mL	0.55–4.78	2.851		
WBC x10^3/uL	3.6–10.5	16.25 *	8.18	15.67 *
NEU# x10^3/uL	1.5–7.7	13.97 *	6.70	13.85*
HGB [D] g/dL	12.5–17.2	10.1*	8.7*	9.3*
PLT x10^3/uL	160–400	357	194	55*
Erythrocyte Sedimentation Rate (ESR) mm/saat	0–20	37	75	
CRP mg/L	0–5	168*	112*	189*
Procalcitonin ng/mL	<0.16	2.10*		

INFECTION DISEASES

PS – 02

A RARE CAUSE OF PNEUMONIA: ACHROMOBACTER XYLOSOXIDANS

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Gaziantep University

Achromobacter xylosoxidans is an aerobic, oxidase-positive, gram-negative rod that mainly causes serious infections. Achromobacter is distributed in aqueous environments (water, soil etc). In human bodies, it may also exist as normal flora over skins and in the gastrointestinal tract.

Infections with Achromobacter xylosoxidans have included bacteremia, meningitis, urinary tract infections, abscesses, osteomyelitis, corneal ulcers, prosthetic valve endocarditis, peritonitis and pneumonia. Most cases in the literature are described in patients with some form of immunosuppression, usually haematological malignancies. Treatment of Achromobacter xylosoxidans infection is often difficult due to its antimicrobial resistance, and an optimal antimicrobial regimen has not been determined.

According to the available literature, this is the first case of pulmonary infection caused by Achromobacter xylosoxidans, which was detected in a chronic obstructive pulmonary disease patient in Turkey.

A 65-year-old man with a history of chronic obstructive pulmonary disease was admitted to the hospital following 2–3 days of fevers, chills and cough. On general examination he had a temperature of 38.5°C, blood pressure of 125/70 mmHg, and pulse of 88/min. Room air oxygen saturation was around 95%. On systemic examination, patient had bilaterally expiratory rhonchi and coarse crepitations in right lower region. Rest systemic examination was normal.

The leukocyte count was 12.700/mm3, the platelet count was 193.000/mm3. The blood urea nitrogen concentration was 18 mg/dL, serum creatinine was 0.5 mg/dL, and C-reactive protein was 98

mg/L. Chest x-ray showed an infiltrate on the right lower lobe. Sputum samples were taken from the patient for microbiological examination and ceftriaxone, clarithromycin antibiotherapy and bronchodilator agents were started. There was no fever during follow-up and the frequency of cough decreased.

Only imipenem and piperacillin/tazobactam sensitive Achromobacter xylosoxidans was detected in sputum culture (Table 1). Leukocyte and CRP levels were decreased in the control tests. Ceftriaxone and clarithromycin treatment was continued because of clinical and laboratory response. No microorganism was detected in the sputum culture examined on the 7th day and the treatment was completed to 10 days. The patient had no fever after the treatment and he was discharged with the suggestion to come to the outpatient clinic.

Achromobacter is usually resistant to ampicillin, cephalosporins, fluoroquinolones and aminoglycosides as in our case report. The duration of treatment is not exactly defined. We went on treatment with ceftriaxone and clarithromycin because of clinical and laboratory response. The response to this treatment may be due to in vivo sensitivity and this shows that may be more important than the antibiogram result.

Keywords: achromobacter xylosoxidans, pneumonia

Table 1. Antibiotic sensitivity test of Achromobacter xylosoxidans

Antibiotic	*Results*	*MIC (µg/ml)*
Aztreonam	Resistant	>16
Ertapenem	Resistant	>8
Amikacin	Resistant	>16
Gentamicin	Resistant	>4
Imipenem	Sensitive	≤2
Netilmicin	Resistant	>4
Piperacillin/Tazobactam	Sensitive	≤4/4
Sefepim	Resistant	>8
Seftazidime	Resistant	>8
Ciprofloxacin	Resistant	>2

MIC: minimum inhibitory concentration

HEMATOLOGIC AND ONCOLOGIC DISORDERS

PS – 04

RECTUM CARCINOMA WITH LUNG AND CEREBELLUM METASTASIS WITHOUT LIVER METASTASIS: CASE REPORT

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Gaziantep University Medical Faculty

Summary: The most common site of metastasis of rectum cancer is liver, lung and peritoneum. It is a rare condition that rectum carcinoma causes metastasis to the cerebellum and compression. In this case report, a 60-year-old patient with a diagnosis of rectum adenocarcinoma with lung and cerebellar metastasis without liver metastasis is presented.

Introduction: Colorectal cancer is frequently seen in the elderly population. Its prevalence is 1.6% at 50–60 years of age and 3% over 70 years of age (1). Approximately 1/3 of colorectal cancers are rectal cancers. Rectal cancer is approximately 1.5 times more common in men than in women (2). Brain metastases are a well-known complication of systemic cancers (3). Cancers that most commonly metastasize to the brain are lung, breast, malignant melanoma and renal cell cancer (4).

Case report: A 60-year-old male patient diagnosed with rectum adenocarcinoma and lung metastasis 2 years ago, had an increasing headache complaint. A mass lesion in the cerebellum was detected in cranial CT and MR examinations of the patient. Hypometabolic lesion in right cerebellar region was determined in PET-CT scan imaging. The tumor was excised in the Neurosurgery department. Histopathological examination of the lesion revealed rectum adenocarcinoma metastasis. The patient was re-operated due to bleeding in the parietal region of the brain in the postoperative period. The patient's treatment was completed in the intensive care unit after the operation and was hospitalized in our palliative care center to continue his follow-up and treatment.

Discussion: Rectum cancers spread hematogenous, lymphatic, neighborhood and transperitoneal. Most common sites of metastasis are regional lymph nodes, liver, lung and peritoneum. Metastatic symptoms and signs in patients vary according to the site of metastasis. Rectal cancer has a worse prognosis than other colon tumors in terms of metastasis and local recurrence (5). The most common histopathological type of rectum cancer is adenocarcinoma. Rectum cancer metastases often occur in the liver. In the literature, cases with lung metastasis without liver metastasis or with cerebellum metastasis without liver metastasis have been reported. This case report is the first case report in the medical literature with lung and cerebellum metastases without liver metastasis.

Keywords: rectum carcinoma, cerebellum, metastasis

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SKELETAL MUSCLE SYSTEM DISORDERS

PS – 22

SARCOPENIA AS A RISK FACTOR FOR FALLS IN OLDER ADULTS

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Introduction: Postural and gait balance are important markers of general health. Deterioration in balance gradually increases with ageing and affect approximately one third of community-dwelling individuals older than 65 years (1). Disturbances in balance have a significant impact on quality of life and are strongly associated with increased risk of falls, which can in turn cause morbidity and mortality (2). Sarcopenia is a geriatric syndrome defined as the loss of muscle strength, mass and function (3). However, the association between balance impairment and sarcopenia is still unclear. In this study we evaluated the relationship between sarcopenia and risk of fall.

Material and Methods: This is a cross-sectional study based on the data from patients who admitted to outpatient polyclinic of geriatrics. Evaluation for sarcopenia was done according to EWGSOP2 (European Working Group on Sarcopenia in Older People) criterion (3). Risk of fall was evaluated with tinetti balance and gait assessment and timed up and go test (TUG). The IBM SPSS Statistics 22 software

program was used to analyze data. Relationships between parameters were investigated by pearson correlation analysis and linear regression analysis. Statistical significance level was determined as $p<0.05$.

Results: The study population was composed of 57 women and 43 men, of mean age 72.8 +/– 7.4 years. SARC-F (strength, assistance with walking, rise from a chair, climb stairs and fall) score were negatively related with tinetti balance score, gait score and total tinetti score. Handgrip strength was found to be positively related with tinetti balance score, gait score and total tinetti scores. Handgrip strength was negatively related with TUG score. Skeletal muscle mass index was also revealed to be negatively related with TUG score. Gait speed was positively correlated with tinetti balance score, gait score, total tinetti score and negatively correlated with TUG score. Results were depicted in table-1. In linear regression analysis, total tinetti score was independently related with SARC-F, skeletal muscle mass index and gait speed ($r^2=0.312$, $p=0.028$; $p<0.001$; $p=0.023$ respectively).

Discussion: Falls are the most important cause of morbidity and mortality for elderly patients. When older patients fall, they sustain such injuries as hip, spine, hand, and/or pelvic fractures. Even in case of no injury, falls cause loss of self-confidence and fear to fall again that results in reduced physical activity, increased dependency, and social isolation. Many authors have mentioned that a fall is a multi-factorial syndrome involving the patient and the environment (4). In this study, we revealed that sarcopenia was related with imbalance. Depending on this finding, sarcopenia can be handled as a risk factor for falls and fractures. These findings indicate that early diagnosis and management of sarcopenia has a clinical importance on management of postural imbalance and prevention of falls. Prospective studies could be better to evaluate effect of sarcopenia prevention and treatment strategies on falls and fractures.

Keywords: sarcopenia, fall, balance, tinetti, TUG

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Table 1. Relationship between parameters

	Tinetti gait score	*Tinetti balance score*	*Total Tinetti score*	*TUG (s)*
SARC-F	p<0.001 r=-0.354**	p=0.009 r=-0.264**	p=0.003 r=-0.305**	p=0.36
Handgrip strenght (kg)	p=0.002 r=0.309**	p=0.003 r=0.309**	p=0.002 r=0.332**	p=0.006 r=-0.294**
SMMI (kg/m^2)	p=0.96	p=0.93	p=0.92	p<0.001 r=-0.392**
Gait speed (m/s)	p=0.005 r=0.301**	p<0.001 r=0.403**	p<0.001 r=0.418**	p<0.001 r=-0.834**

Acknowledgments: I would like to express my special thanks of gratitude to Professor Zeynel Abidin Ozturk and all my colleagues that we worked together in this study.

MALNUTRITION

PS – 23

MALNUTRITION PREVALENCE IN THE SCOPE OF TOOLS PROPOSED RECENTLY AND CONVENTIONAL TOOLS AT THE HOSPITAL

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Purpose: The aim of this study is to investigate malnutrition with conventional and recently proposed tools at the hospital and compare the results.

Material and Methods: All of the patients hospitalized between January 1st and February 22nd 2020 were included in the study. Exclusion criteria were as follows; patients not able to communicate, and <60 years of age. Malnutrition was identified with Mini Nutritional Assessment-Short Form (MNA-SF), European Society of Clinical Nutrition and Metabolism (ESPEN) and the Global Leadership Initiative on Malnutrition (GLIM) criteria. Hand grip strength was performed with Takei digital dynamometer in a standard protocol. The other variables were taken retrospectively from hospital records.

Findings: A total 0f 48 patients were enrolled in the study. The sample consisted of 23 women, and 25 men. The number of patients with normal nutritional status was 10 (20.8% of all). The prevalence of malnutrition with MNA-SF was 41.7%, and 37.5% was at risk of malnutrition. The prevalence of malnutrition with ESPEN and GLIM criteria were 16.7%, and 52.1%, respectively. The aggrement between the tools was poor to fair (MNA-SF vs. ESPEN: $\kappa=-0.036$, $P=0.112$; MNA-SF vs. GLIM: $\kappa=-0.122$, $P<0.001$; ESPEN vs. GLIM: $\kappa=0.230$ $P=0.028$).

Conclusion: As malnutrition prevalence varies with different screening tools and assessments, standardization for malnutrition screening and assessment is essential. The GLIM consensus is a great step ahead this target. With the aim of comparing latest two malnutrition diagnostic assessment methods with MNA-SF, we report that malnutrition screened by those tools was substantially variable. The participant sample will be improved, and the other variables will be discussed.

Keywords: malnutrition, nutrition assessment, aged

NEUROLOGIC DISORDERS

PS – 31

NEWLY DIAGNOSED EPILEPSY OF AN OLD PATIENT: A RARE PRESENTATION

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Contrary to popular belief epilepsy is very common in older adults. Approximately one quarter of newly diagnosed patients are older than 65. Older patients have commonly focal seizures and prolonged postictal confusion. A 79-year-old male with a history of ischemic stroke and hypertension presented to hospital with agressive behaviour, hallucinations during night sleep and memory loss within last four months. Additional symptoms were losing personal things, getting lost in the neighbourhood lately. Physical examination was normal with no neurological deficit. Electrocardiography was normal. Laboratory tests were within normal limits except from high platelet count. Diffusion magnetic resonance imaging (MRI) showed chronic ischemic brain injury. Carotid and vertebral doppler ultrasonography findings were normal. Psychiatric examination was normal and mini-

mental test score was 27. During hospital course he showed agressive behavior and talked nonsense within night sleep which he did not remembered for the next day. He also had urine incontinence during this period. Electroencephalogram was performed which showed bilateral temporal regional slow paroxysmal activity and epileptiform activity associated with right temporal region. The patient was referred to neurology department for antiepileptic treatment.

Conclusion: Epilepsy is common and new onset seizures may be seen among older patients. Causes of new onset diease are mainly cerebrovascular diseases, metabolic disorders, trauma, tumors and medications. The differential diagnosis list contains cardiac arrhytmia, syncope, transient ischemic attack, metabolic disorders, neurodegenerative diseases, REM sleep disorders and psychotic diseases. For definite diagnosis detailed history, physical examination, laboratory findings, electrocardiography, MRI and EEG is helpful. We must consider that focal seizures are more common, less obvious aura and automatism and prolonged postictal confussion is seen in older adults.

Keywords: epilepsy, older adult

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DEMENTIA, DEPRESSION, DELIRYUM

PS – 34

A CASE REPORT: COULD HYPERCALCEMIA BE THE CAUSE OF DEMENTIA AND URINARY INCONTINENCE?

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An 83-year-old female patient was admitted to outpatient clinic with increasing pollakiuria, polydypsia and urinary incontinence; increasing for the last 4 months. She had diabetes mellitus and essential hypertension for 20 years, dementia for 4 years, peripheric artery disease and osteoporosis. She had 2 kg of weight loss in the last 3 months due to loss of appetite. When we examined past laboratory results; calcium was 11.5 mg/dL, phosphorus was 2.6 mg/dL, parathormone was 124 ng/L in 2011. There has not been any laboratory examination then. Since there is a history of hypercalcemia and pollakiuria accompanied by polydypsia we examined all these past results again. Calcium was 11.6 mg/dL, phosphorus was 2.1 mg/dL, parathormone was 535 ng/L, 25-Hydroxy vitamine D was 20.6 μg/L, serum albumine was 4.3 g/dL on geraitrics outpatient addmition. 15x6 mm adenoma was seen in the right parathyroid lobe on the neck ultrasound and ultrasound findings confirmed on parathyroid scintigraphy. The patient was then referred to endocrinology clinic. Patient addmited geriatrics outpatient clinic 3 monts after operation for parathyroid adenoma; calcium was 9.2 mg/dL, phosphorus was 2.9 mg/dL, albumine was 3.8 g/dL, parathormone was 8 ng/L on laboratory findings. There is not any complaint about polydipsia and pollakiuria. It is thought that hypercalcaemia, one of the rare causes of dementia pathogenesis, may occur in the patient. It should also be kept in mind that it is important to get detailed history in the elderly addmitted with urinary incontinence complaints and hypercalcemia may be among the causes.

Keywords: dementia, hypercalcemia, urinary incontinence

SKELETAL MUSCLE SYSTEM DISORDERS

PS – 35

CALCULATING SKELETAL MUSCLE MASS AND SKELETAL MUSCLE MASS INDEX AND DEFINING CUT POINTS

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Purpose: We aimed to calculate skeletal muscle mass and skeletal muscle mass indexes of young adults to define cut points with reference to our sample.

Methods: We summoned that we are looking for young adults aged 20–45 years who will undergo bioelectrical impedance analysis. Exclusion criteria were having a systemic disease, pregnancy, amputated extremities, using permanent medications, or using medications in last 3 months. Skeletal muscle mass was calculated by formulations suggested by the European Working Group on Sarcopenia in Older People consensus. Cut off point was calculated from the reference population.

Results: A total of 216 young adults aged 20–45 years were taken into the study. Of the participants; 140 of them were women, 76 of them were men. The mean BMI of the total group was 23.36±3.99 kg/m^2. The mean weight of the participants was 65.41±13.62 kg. Mean SMM, and SMMI were: for women: 14.88±1.84 kg, and 5.56±0.58 kg/m^2; for men: 21.51±2.18 kg, and 7.08±0.55 kg/m^2,

Conclusion: The cut points we calculated with reference to our sample of young adults and by formulations suggested by the European Working Group on Sarcopenia in Older People consensus were much lower than the consensus cutpoints and the other cutpoints suggested for Turkish population. Reasons for those issues will be discussed.

Keywords: muscle, skeletal; bioelectrical impedance, sarcopenia

HEMATOLOGIC AND ONCOLOGIC DISORDERS

PS – 36

A MALIGNANT CAUSE OF HYPERCALCEMIA: WHICH IS THE PRIMARY ORGAN?

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A 77 year-old female patient was admitted to emergency department with complaints of fatigue, speech disorder, confusion, fever for the last 2 days. Her blood pressure was 105/55 mmHg, cardiac rate was 100/min and body temprature was 38.2°C. A painless mass about 2 cm in the left breast and a left axillary mass about 5 cm were detected in physical examination. Other systemic examination was normal.

She had hypertension, depression and subtotal thyroidectomy history.

In her laboratory exams she had pansitopenia (wbc: 3.3 10^9/L hgb: 8 g/dl plt: 62 10^9/L), calcium: 12.5 mg/dl, PTH: 10pg/ml urea: 166 mg/dl and creatinin: 2.5 mg/dl.

Her erythrocytes in peripheral blood smear was normocrom, they have poicilositosis and anisositosis.

Her chest X-ray was normal, urine culture was sterile, her brucella serology was negative. Ampiric extended spectrum antibiotherapy was began, her fever did not fall during follow up.

We learned she had hospitalised three months ago in another hospital because of renal failure and hypercalcemia in her medical history. In there, mammograpghy had showed 2 cm BIRADS-4 (Breast Imaging Reporting and Data System) lesion in left breast. A biopsy sample was taken from that lesion which was resulted as non diagnostic. A second biopsy was recommended but patient did not accept it. At that time, A PET (positron emission tomography) scan was performed which showed jugullary, mediastinal, intraabdominal clustered multiple lymphadenopathies. When she was discharged, her creatinine was normal. So we thought that she was on acute renal failure.

At her actual admisson, she was consulted to general surgery because of axillary lymphadenopathy for excisional biopsy. Pathology was resulted as nodulary lymphocyte predominant Hodgkin lymphoma. Her bone marrow biopsy was done and its result was hodgkin lymphoma bone marrow involvement. She had ABVD (adriamycin, bleomycin, vincristin, dacarbasine) chemotherapy. In the follow up, her body temperature was normalised, acute kidney injury and hypercalcemia were healed and she regained her conscious which was thought to associated with hypercalcemia and delirium.

Physical examination revealed 2 potential malignant lesions: one of them in left breast and the other one is an enlarged conglomareted lymphadenopathy in the left axilla. Medical dilemma was if the lymphadenopathy is a satellite lesion of the breast malignancy or another malignant focus. Patient said that her breast lesion was same measure for ten years. PET scan which was performed 3 months ago showed multiple hyperactive lymphadenopathies and did not show any pathological image on breast. Detailed medical history helped us avoid unnecessary biopsy from breast lesion.

Anamnesis is most important level in patient examination practice, it ensure us patient spesific approach. Although breast cancer is common than lymphoma and more common cause of hypercalcemia, in this case lyphoma is our preliminary diagnosis.

Keywords: hypercalcemia, lymphoma, delirium

DEMENTIA, DEPRESSION, DELIRYUM

PS – 37

THE RELATIONSHIP BETWEEN VITAMIN D LEVELS AND DEPRESSION SCORES IN GERIATRIC PATIENTS HOSPITALIZED IN PALLIATIVE CARE

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Objectives: Vitamin D deficiency/insufficiency is a highly prevalent condition both in our country and worldwide. Comorbidity of vitamin D deficiency and major depression is a common diagnosis in geriatric patient populations. There are many studies showing that the deficiency of vitamin D may also play a role in the etiology of mood disorders. In this study, we aimed to determine the relationship between vitamin D levels and depression scores in geriatric patients hospitalized in a palliative care unit.

Methods: The medical records of the geriatric patients hospitalized in our unit within one-and-a-half-year period (1 January 2018–1 August 2019) were examined. A total of 79 patients, 48 women and 31 men, were included in our study. Geriatric Depression Scale (GDS) was used to determine the severity of depressive symptoms.

Results: The mean age of patients included in the study was 72.08±10.48 years. Male patients constituted 39.2% (n=31) of the patients and female patients 60.8% (n=48) of them. There was a statistically significant and moderate negative correlation between vitamin D levels and GDS scores of the patients ($p<0.001$, r: -0.430). The most frequent primary diagnoses at the time of admission to our palliative care unit were malignancy (22.8%) and decubitus ulcer (21.5%).

Conclusion: Vitamin D receptors are expressed in several brain regions (e.g. the pituitary gland) and across different cell types (i. e. neurons and glial cells). Therefore, vitamin D signaling in the brain might affect behavior and mood-related processes. That it is crucial to evaluate serum 25 (OH) vitamin D levels in patients with depression aged 65 years and older. Many factors play a role in the etiology of geriatric depression; the main predisposing factors include prior history of psychiatric illness, lack of social activities, low education level, living alone, chronic diseases and decreased cognitive capacity. In our study, serum vitamin D levels were found to be negatively correlated with depressive symptom scores in geriatric patients receiving palliative care. Vitamin D replacement might provide significant benefits for the treatment of depressive symptoms, along with improvements in the quality of life of patients and their caretakers.

Keywords: vitamin D, depression, vitamin D deficiency

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Table 1.

N: 79	
Age	72.08±10.48 (55–94)
F/M (%)	60.8/39.2
Diagnosis (%)	
Malignancy	22.8
Decubitus Ulcer	21.5
CVD	21.5
Dementia	20.3
COPD	7.6
Heart Failure	6.3
Vit D Level	12.92±11.83 (3–48)
YGDS	12.40±2.68

Table 2.

Vit D Level	*P r*
YGDS	0.000–0.430

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

PS – 38

PROLONGED AND RESISTANT HYPOPHOSPHATEMIA AFTER ZOLEDRONIC ACID FOR SENILE OSTEOPOROSIS: A CASE REPORT

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Introduction: Bisphosphonates are often recommended as first-line options for men and women at risk of osteoporotic fractures (1). Zoledronic acid, an intravenous, highly potent aminobisphosphonate approved for use in patients with primary or secondary osteoporosis, and No dosage adjustment of zoledronic acid is required in the elderly (2). Although Zoledronic acid was generally well tolerated in clinical studies (3), hypophosphatemia is not a rare adverse event in malignancy related usage (4). There is a case report of prolonged hypophosphatemia after use of zoledronic acid (5). Also another case with AL amyloidosis is reported hypocalcemia and hypophosphatemia after zoledronic acid infusion (6). To the authors' knowledge, this duration and persitency of hypophosphatemia in response to ZA has not been reported in the literature.

Case Report: 91 years old male patient, diagnosed as senile osteoporosis, was treated with zoledronic acid. He had not received any treatment for osteoporosis. Before the treatment, his blood calcium level was 9.076 mg/dl, inorganic phosphorus level was 3.75 mg/dl and vitamin d levels was 36.86 mcg/l. The day after treatment, patient became hypocalcemic and hypophosphatemic and he was asymptomatic, was given calcium and phosphorus replacement by oral route. At the control visit on the fifth day of injeciton, his blood calcium and phosphorus levels were checked and revealed that was hypocalcemic and hypophosphatemic, and he was hospitalized. He had taken intravenous calcium and phosphorus for five days. he was discharged with the support of oral calcium and phoshorus salts. Ten days later after discharge, he had admitted to the hospital to examine his calcium and phosphorus levels and it was seen that he was hypocalcemic and hypophosphatemic. His oral treatment doses were increased and called for control one month later. Since he had been normocalcemic and normophosphatemic at control, his oral replacement therapy were stopped. five months later, at the control visit to the hospital it was determined that he was hypocalcemic and hypophospatemic for one more time. His blood vitamin d and parathyroid hormone levels were examined and were 38.7 μg/L (20–40) and 129.2 pg/ml (10–80) respectively.

His 24-hour urine sample was detected for hypercalciuria it was hypocalciuric. His oral replacement therapy was started again, and after seeing that he was normal calcium and phosphorus level, it was continued with lower doses.

Discussion: Hypophoshatemia and hypocalcemia are not rare adverse events after injection of zoledronic acid but it is commonly seen after tumour induced hypercalcemia (4). Hypophospatemia is caused by a significant increment of PTH levels during the abrupt decrement of serum calcium levels (4). There is a case report of hypophosphatemia after use of zoledronic acid for hypercalcemia of malignancy for 33 days (5). Also another case with AL amyloidosis is reported hypocalcemia and hypophosphatemia after zoledronic acid infusion (6).

Between 9 and 11 days post-infusion, hypocalcaemia (a serum calcium level <2.075 mmol/L reported in 49 of 3862 (1.27%) zoledronic acid recipients compared with 1 of 3852 (0.03%) placebo recipients in the HORIZON-PFT study, although it was asymptomatic and transient (7) The incidence of hypocalcaemia was also low in the HORIZON-RFT study (0.3% vs 0% of placebo recipients) with the overall low incidence in this study probably because of a vitamin D loading dose administered to the majority of patients (8).

Although there is no dose adjusment for elderly, just like in our case adverse events may be more common and resistant in this population. Serum calcium and phosphorus levels must be alerted and monitored closely in elderly.

**According to laboratory Serum Calcium levels are accepted as normal between 8.8–10.6 mg/dl and Serum inorganic Phosphorus levels are accepted as normal between 2.5–4.5 mg/dl.*

Keywords: hypophosphatemia, hypocalcemia, elderly, geriatrics, osteoporosis, senile, biphosphanates, zoledronic acid

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Table 1. Serum Calcium and Phosphorus levels according to days after zoledronic acid injection

Days	*Serum Calcium* (mg/dl)*	*Serum iPhosphrus* (mg/dl)*
0	9.076	3.75
1	7.06	1.85
5	8.13	1.37
10	9.06	2.5
20	8.24	2.01
50	8.91	2.68
196	8.4	1.49
210	9.3	2.5

HEMATOLOGIC AND ONCOLOGIC DISORDERS

PS – 39

A NEWLY ONSET CONSTIPATION AND HYPONATREMIA ASSOCIATION; CASE REPORT

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Introduction: Hyponatremia is one of the most common electrolyte disturbance in hospitalized patients. Syndrome of inappropriate antidiuretic hormone secretion (SIADH) is a substantial reason of hyponatremia and malignancies are its consequences that should not be forgotten.

Case Report: A 74 years old male patient who has hypertension, COPD and a history of stroke, presented to emercency service with complaints of abdominal pain and constipation. He previously presented to his primary care phycisian with these complaints which started 10 days ago. After using some symptomatic medications, he refered to emergency department since his complaints stayed still. Osmolality (urine) – 312 mOsm/kg H2O (300–900 mOsm/kg H2O), Osmolality (blood) – 275 mOsm/kg H2O (280–301 mOsm/kg H2O), Sodium (Na) (spot urine) – 51.9 mEq/L (18–214 mEq/L) BUN – 11.3 mg/dL and uric acid 4.85 mg/dL was determined in his laboratory test. As taking account of the test results and since the volume status of patient is euvolemia, the diagnosis of Syndrome of inappropriate antidiuretic hormone is thougt primarily. Patient is hospitalized for investigating the etiology of SIADH. His drugs are noted as amlodipine, carvedilol and acetlysalicylic acid. He has no history of using SSRI, diuretics or any drugs that may cause SIADH. Since the malignancies may cause SIADH, patient underwent cancer screening. Thorax CT evaluation has done because of the smoking history and abdominal ultrasonography has been performed for patient's complaints of constipation. No pathological findings were detected. Even if colorectal cancers are relatively rare causes of SIADH and he didn't have any finding suspecting gastrointestinal malignancies, endoscopy and colonoscopy were performed because of his newly and acute onset constipation. Ulcerated fragile mass that covers the lumen in the sigmoid colon was detected by colonoscopy. Eventually patient diagnosed as colorectal adenocancer after pathological examination.

Discussion and Conclusion: Hyponatremia is one of the most common electrolyte disturbances in hospitalized patients. It may results from loss of body sodium with secondary water retention (hypovolemic); from relative or absolute excess of body water (euvolemic, including syndrome of inappropriate antidiuretic hormone secretion (SIADH)) or from hypervolemic status due to renal sodium and water retention (hypervolemic) In SIADH abnormally elevated levels of antidiuretic hormone lead to excessive free water retention and signifcant electrolyte abnormalities, particularly hyponatremia. The diagnosis of SIADH is based upon fulfllment of clinical and laboratory criteria as described by Bartter and Schwartz. these criterias are: (i) hyponatremia in the setting of hypo-osmolality, (ii) excessively concentrated urine, (iii) euvolemia, (iv) excessive urine sodium secretion and (v) lack of other causes of hyponatremia. Drugs, CNS disturbances, pulmonary diseases, hormone deficiencies, infection diseases, surgeries and malignancies are possible causes of the SIADH. Ectopic production of ADH by a tumor is most often due to a small cell carcinoma of the lung, thus It has been shown that the incidence of hyponatremia is high, not only in lung cancer, but also in patients with lymphoma and breast cancer. Although colorectal cancer is not known as a common cause of SIADH, recenlty studies showed that it is more common than we thought. Additionally, the occurrence of hyponatremia in all these types of cancer is associated with poorer overall survival. An awareness of hyponatremia in cancer is important as it is commonly underestimated by oncologists due to the difficulty of its interpretation. Consequently we present this case to highlight a rare presentation of SIADH from colorectal cancer. As in this case; when evaluating the etiology of SIADH, malignancies should be kept in mind. Especially in elderly patients, even an insidious or an newly onset gastrointestinal symptom should be taken acount for further investigations.

Keywords: colorectal cancer, hyponatremia, syndrome of inappropriate antidiuretic hormone secretion, constipation

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DEMENTIA, DEPRESSION, DELIRYUM

PS – 40

IATROGENIC DELIRIUM CASE INDUCED BY POLYPHARMACY

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Introduction: Delirium is a fluctuating clinical picture in which attention, awareness and disorientation decreases, where location, time and person orientation is impaired. Especially in elderly patients, polypharmacy and the starting new drugs pose a risk for delirium. Delirium cases are missed out by physicians frequently. In this case, delirium development in an elderly patient who already has polifarmacy, is discussed as a result of starting new multiple different medications synchronously for symptomatic treatment.

Case Report: 80-year-old female who has history of hypertension, chronic obstructive pulmonary disease, depression, myelodysplastic syndrome, atrial fibrillation, pulmonary hypertension, idiopathic pulmonary fibrosis, aortic stenosis, congestive heart failure, hypothyroidism and type 2 diabetes was taken to the emergency department by his relatives due to fluctiation in his consciousness. To the patient with multiple drug use due to chronic diseases (endoxoban 60 mg 1x1, diltiazem 90 mg 1x1, paroxetil 20 mg 1x1, pantoprozole 40 mg 1x1, levothyroxine 100 mcg 1x1, sitagliptin 100 mg 1x1, digoxin 0.25 mg 1x1, epoetin 5000 Three weeks, 1 sc, thoracemide 10 mg 2x1, allopurinol 1x 150 mg, clemastine fumarate 1 mg 2x1, desloratadine 5 mg 1x1, budesonide inhaler 200 mcg/dose 2x1) have been given different antihistamine medications and steroid treatment due to itching for about 9 months. However, the patient did not benefit from treatments. At last a month ago lorazepam 2.5 mg 1x1 and fexofenadine 180 mg 1x1 were added to the treatment. However, since the itching was sustained, and gabapentin 2x300 mg was started. The patient's location, time and person orientation and sleep pattern were impaired within 2–3 days after gabapentin was added to the treatment. Apart from the normal periods of 10–15 minutes, the patient has complete disorientation Patient was hospitalized in the acute care unit to manige the treatment. . Klemastin, desloratidine and fexofenadine that started as antihistamine for sustained itching were discontinued. The drugs, effecting the central nervous system, such as Lorazepem, paroxetine and gabapentin, were discontinued. For his agitation, he was recommended to take quetiapine 1x12.5 mg in the evening. One week after hospitalization, patient started to sleep regularly with quetiapine. Her appetite and oral intake got better. Although the location and time orientation did not improve, her orientation to her relatives was better. The patient was discharged by suggesting outpatient outpatient control.

Conclusion and Discussion: Delirium is a clinical picture with acute onset distortion and fluctuations in cognitive functions, attention and orientation. Delirium is most often observed in emergencydepartments and clinics where acute care is provided. Delirium is seen in 10% of the patients over the age of 65 who presented to the emergency department. However, delirium cases are missed out by 30–40%. Delirium prolongs patients' hospitalization duration, which increases cost and mortality, and can cause permanent memory impairment. Patients with delirium have an increased risk of falling, pneumonia and developing bed sores. It is accepted that delirium rates show the quality of health services. Medicines were found guilty in 40% of delirium cases as a precipitating factor. In studies conducted, it has been observed that the usage of 3 drugs and more, regardless of the drug group, poses a significant risk for delirium. In this case, the delirium, which developed as a result of synchronously initiating more than one drug that effects central nervous system at the same time, was discussed. When deciding to start new medications in geriatric patients, decision should be made wisely and symptomatic treatment should be avoided.

Keywords: delirium, polipharmacy, elderly, drug induced, iatrogenic

INFECTION DISEASES

PS – 45

FOURNIER'S GANGRENE IN THE OLDER PATIENT: A CASE REPORT

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Introduction: Fournier's gangrene is a rarely seen necrotizing fasciitis affecting the perineal, perianal or genital areas. Risk factors are diabetes, HIV, alcoholism, and immunosuppression. The disease is characterized by edema, fever, crepitus, and even sepsis. Ultrasonography, computed tomography and magnetic resonance can be used for the initial assessment. However, the diagnosis of Fournier's gangrene is mostly based on clinical findings. Imaging methods can help with suspicious diagnoses and when clinical signs are uncertain. Emergency surgical debridement and broad-spectrum antibiotics are the main choices of therapy. The use of adjunctive therapies such as hyperbaric oxygen and vacuum-assisted closure (VAC) is controversial. Fournier gangrene is a urological emergency with a high mortality rate, requiring early diagnosis and surgical intervention.

Case: A 66-year-old male patient applied to the emergency department with confusion, syncope, and fever. At the time of admission, it was learned from the history of the patient that he had diabetes, heart failure, lung carcinoid tumor, and past tuberculosis. He had WBC: 12800 CRP: 141. The patient did not have a history of alcohol and smoking. The patient with swelling, wound, and purulent discharge in the scrotum was diagnosed with septic shock due to Fournier's gangrene, piperacillin-tazobactam and teicoplanin treatment were started in the intensive care unit. The patient who developed acute renal failure during follow-up was hemodialyzed. The patient was admitted to the geriatric service to continue antibiotic therapy. However, bilateral scrotal edema increased and scrotal walls were diffuse thick and edematous in ultrasound. The patient evaluated by the urology department. Debridement and left orchiectomy were performed. Acinetobacter baumanii was detected in tissue culture taken during surgery. Tigecycline treatment started. Insulin treatment was initiated and blood sugar was regulated. Acinetobacter baumanii was detected in recurrent tissue cultures and tigecycline treatment was continued for 30 days. After WBC, CRP decreased, treatment was ended, and the patient was discharged.

Discussion: Fournier gangrene is a urological emergency with high mortality rates and requiring early intervention. The mortality rate is higher especially in diabetic individuals with chronic alcohol use. In this case, early diagnosis and early intervention are the most important factors in the patient's complete healing, with rapid debridement until it reaches the solid tissue border. Another important point in the treatment of Fournier's gangrene is the daily debridement dressings, nutritional support, and blood sugar regulation. It should be remembered that the infection will progress rapidly due to comorbidities accompanying the geriatric patient.

Keywords: Fournier's gangrene, geriatric patient

Figure 1. Postoperative image

Figure 2. Preoperative image

ATOPIC PRESENTATIONS OF DISORDERS

PS – 46

CIPROFLOXACIN INDUCED HALLUCINATIONS IN AN OLDER PATIENT

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Introduction: Central nervous system side effects (headache, insomnia, restlessness, irritability, somnolence) related to ciprofloxacin use can be seen with 1–3% frequency. And the frequency of hallucinations is less than one percent. In this case report, an older patient with hallucinations after the use of ciprofloxacin in our clinic is presented.

Case: An 83-year-old woman was admitted to the Geriatrics Service due to generalized anxiety disorder, palpitations and iron deficiency anemia. It was learned from the patient's history she was followed up with the diagnosis of hypertension, arrhythmia and otitis media. She has a history of using candesartan, hydrochlorothiazide, nebivolol, omeprazole and taking ciprofloxacin for otitis media. There was no history of alcohol and smoking. She had been visual hallucinating more than a month. Hallucinations occurred just before the patient fell asleep. The patient was consulted with psychiatry and started with escitalopram for the diagnosis of generalized anxiety disorder. Advanced examinations were performed in terms of iron deficiency anemia etiology. Due to pan gastritis as a result of endoscopy, proton pump inhibitor treatment was initiated. No pathology was found in colonoscopy. Due to the hypotensive and bradycardic prognosis during follow-up, holter ecg results were evaluated and nebivolol, candesartan, hydrochloroazide treatments replaced with amplodipine. After admission to the clinic, the patient was evaluated by the Ear Nose Throat department and ciprofloxacin use was stopped. In the follow-up, it was observed that the patient's hallucinations gradually decreased and then disappeared. The patient was discharged by giving an outpatient appointment to evaluate the results of the tests.

Discussion: In elderly patients, Parkinson's disease, Lewy body dementia, epileptic seizures, alcohol withdrawal, drug side effects, narcolepsy can be counted as the etiology of complex visual hallucinations. In our case, taking ciprofloxacin considered as an etiological reason after excluding all these etiologies. Although ciprofloxacin has been used widely with many diagnoses, the frequency of drug-induced hallucinations has been reported to be below one percent. Long-term use of ciprofloxacin in an old patient increase the risk of hallucinations. Increased awareness of ciprofloxacin's hallucinating affect and prescribing it carefully to especially elderly patients would be convenient.

Keywords: ciprofloxacin, hallucinations

CARE SERVICE IMPLEMENTATIONS (REHABILITATIONS, LONG TERM AND HOME CARE, PALLIATIVE)

PS – 47

FEMUR FRACTURE IN AN OLDER PATIENT

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Introduction: Osteoporosis is the most common bone disease and is an important public health problem with an increase in average lifetime. It is defined as a systemic skeletal disease characterized by low bone mass and microarchitecture in bone tissue, with increased bone frailty and probability of fracture. In this case report, a patient who developed a femur fracture after minor trauma in our clinic has presented.

Case: A 89-year-old woman has known chronic kidney disease, Alzheimer's disease, heart failure, and operated knee replacement. Patient was admitted to geriatrics ward with acute renal failure and hypernatremia. Percutaneous endoscopic gastrostomy was placed to the patient with moderate-to-advanced Alzheimer's disease because of oral intake and aspiration history. When the patient's nutritional support, treatment was completed and her discharge was planned, severe leg pain occurred while caregiver transferring her from bed to bathroom. On X-ray, the patient was found to have a femoral fracture and was consulted to orthopedics. The patient was offered an operation but was not accepted by his relatives. The orthopedics department planned conservative treatment, and the patient's leg was splinted, elevation and ice were applied.

Discussion: Fractures in the elderly can be seen as a result of low-energy traumas. Hip joint fractures that surround the neck or upper part of the thigh bone are often confused with severe hip injuries. Consequently, it should be kept in mind that older people who complain of pain in their hips after falling or low-energy trauma may develop fractures. Even in bedbounded patients osteoporosis should be treated.

Keywords: osteoporosis, femur fracture

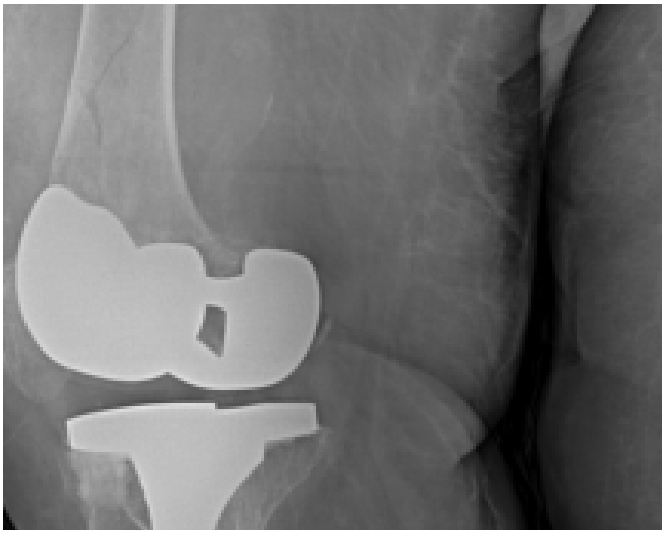

Figure 1. Femoral fracture X-ray view.

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

PS – 49

TWO CASES OF INAPPROPRIATE MEDICATION USE IN ELDERLY

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Introduction: In the ageing world, because of the elderly patients which has chronic diseases and multimorbidities, polypharmacy and inappropriate medication use (IMU) become a globally expanding problem (1). The frequency of drug prescription errors is high in patients with polypharmacy expecially in primary care (2). Medication errors are one of the major problems of healthcare systems (3). The medication in elderly patients is a complex activity that requires a clinical careful evaluation and constant monitoring with eventual revaluation periodic of therapy plan. I would like to present two cases about IMU in elderly in this presentation.

Case 1: Seventy-two years old woman presented to our emergency department with gradually progressive generalized weakness, dyspnea on exertion and lightheadedness. Her medical history included coronary artery disease, hypertension and chronic kidney disease from insulin dependent diabetes. He reported proper use of medications which included insulin glargine and insulin aspart, totally 60 units daily. Also she was using amlodipine, metoprolol, atorvastatin and acetylsalicylic acid for coronary artery disease. His daughter reported a blood sugar reading of 30 mg/dL at home which prompt-

ed the emergency department visit. On presentation, the patient was tachycardic, tachypneic and diaphoretic. Initial glucose meter reading was found to be 50 mg/dL and a blood glucose level on the metabolic panel was 45 mg/dL. Patients' serum creatinine was 3.4 mg/dL, increased from a baseline of 1.6 mg/dL. While in the emergency room, the patient received 50% dextrose intravenously eventually requiring an intravenous infusion of 10% dextrose. With this treatment, her hypoglycemia corrected within 2 hours, blood sugar increased above 100 mg/dL. Her symptoms recovered. She was hospitalized in geriatrics clinic for 5 days. Her HbA1 c level was shown as 6%. Her blood sugar levels were regulated with linagliptine 5 mg and insulin glargine 20 units. Metoprolol was discontinued. Her creatinine levels were decreased to baseline levels with oral hydration.

IMU: According to Turkish Inappropriate Medication Use in Elderly (TIME) criteria, strict glucose regulation was not recommended in elderly. Also beta-blockers were not recommended in elderly patients who have history of hypoglycemia.

Case 2: Sixty-six years old man with end-stage renal disease from insulin dependent diabetes was applied to geriatric polyclinic with severe muscle pain. He was also followed for gout arthritis by rheumatology. He stopped to go rheumatologist since one year. And he was on dialysis for six months. His glomerular filtration rate was 20 ml/min on his last rheumatology visit. He was using allopurinol 150 mg and colchicine 1 mg daily since his last rheumatology visit. His creatine kinase (CK) level was shown as 1000 U/L. Colchicine was stopped and acetaminophen 1500 mg/day was prescribed for muscle pain. When patient referred to us one week later, his CK level was seen as 200 mg and his pain was relieved.

IMU: Colchicine is not recommended in patients whose GFR <10 ml/min according to TIME criteria.

Discussion: Prevalence of IMU among community-dwelling elderly is high and depends partly on the method used to evaluate improper use. Many criteria were developed for evaluation of IMU. TIME criteria were one of them. Taking those criteria in consideration when prescribing drugs for elderly could diminish burden caused by IMU in elderly.

Keywords: inappropriate medication use; TIME

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UROLOGICAL DISORDERS

PS – 50

CRESENTIC IGA NEPHROPATHY & PLASMAFERESIS TREATMENT

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Introduction: Anti-neutrophil cytoplasmic antibody (ANCA) related vasculitides (ARV) are autoimmune diseases that occur with the clinical picture of hematuria and hemoptysis, characterized by necrositic vasculitis of small and medium vessels, resulting in death if left untreated.

There are three types of ARV; granulomatosis polyangiitis (GPA) (formerly Wegener's granulomatosis), microscopic polyangiitis (MPA) and Chrug-Strauss syndrome (CSS). GPA is the most common type and is diagnosed by antineutrophil cytoplasmic antibody positivity and cytological findings.

The prognosis of vasculitic syndromes may vary depending on the importance of the involved organs. The mortality rate is low in hypersensitivity vasculitis with skin lesions in the foreground, and the risk of death is high if the early treatment is not started in a GPA patient with systemic involvement and presenting with hematuria and hemoptysis.

The prevention of relapses is as important as the treatment of these diseases. Relapse is also high in these diseases with systemic involvement. While the relapse rate in GPA patients is 20% in the first 12 months, this rate may increase to 60% in the 5-year period. Cyclophosphamide, steroid, azathioprine and rituximab are used in the treatment of vasculitis. Among these treatment agents, rituximab can be used to treat ANCA-related vasculitis, but clinical experience is limited. Therefore, we aimed to present long-term remission with Rituximab treatment in a case of PR3-ANCA-related vasculitis that developed frequent relapse during cyclophosphamide treatment.

Case: A 67-year-old male patient was evaluated in the nephrology polyclinic because of hematuria and petechiae on the legs. There were no other pathological findings on physical examination. Laboratory results were as follows: Urea; 260 mg/dl, creatinine: 8.9 mg/dl, erythrocyte sedimentation rate (ESR): 85 mm/h, ANA (-), Anti dsDNA (-), p-ANCA (-) (Anti MPO) (-), c-ANCA (Anti PR3) (+).

Considering the possibility of renal involvement vasculitis, hemodialysis and plasmapheresis were applied. ANCA glomeulonephritis complicated by crescent was reported in renal biopsy. At this stage, three doses of pulse steroid treatment (methylprednisolone 250 mg) and maintenance prednisolone treatment were planned, as well as six doses of cyclophosphamide and maintenance azathioprine. Relapse developed in the 8th month of treatment and plasmapheresis, cyclophosphamide and steroid combination were started again (Table 1.0). After cyclophosamide treatment, maintenance azatioprine treatment was started. In the 8th month of maintenance therapy, the patient presented to the outpatient clinic with hematuria and hemoptysis. Urea: 38 mg/dl, creatinine: 1.75 mg/dl, strip erythrocyte: 9, p-ANCA: >100, the patient was presumed relapse and rituximab treatment was planned. A total of four doses of rituximab (375 mg/m2) was administered and maintenance of rituximab was planned at intervals of six months. During the follow-up period, relapse was not seen in more than two years.

Discussion: Vasculitis is a different clinicopathologic condition caused by inflammation and damage of vascular structures. The clinic of the disease varies according to the diameter of the affected vessel, localization of the vessel and the severity of inflammation (5). These include general symptoms such as fever, weakness, weight loss, as well as peripheral neuropathy, proteinuria, hematuria, hemoptysis, skin lesions (palpable purpura, livedo retcularis) and cerebrovascular events (6). When cyclophosphamide treatment, which is used in the treatment of vasculitis, is used in patients with relapses, the increased risk of malignancy, infertility and infection as a result of repeated doses of cyclophosphamide causes treatment-related complications. In the RAVE study, 197 ANCA-associated vasculitis patients were treated with either cyclophosphamide (2 g/kg/day) or a cure (RTX) (4x 375 mg/m2/week) for 3–6 months. RTX treatment has been shown to be as effective as cyclophosphamide (7). The MAINRITSAN study also evaluated the efficacy of RTX therapy in maintenance therapy.[115] ARV patients were in remission with the cyclophosphamide-sterod regimen, followed by daily azathioprine or RTX treatment (500 mg IV on days 0–14) at 6 months intervals. Relapse was 29% in AZA group and 5% in RTX group (8). In a retrospective study conducted between 2013 and 2017, 69 patients with C-ANCA-related vasculitis were treated with RTX. 54% of these patients developed relapse at least once within 24 months after starting RTX treatment (9).

In our case, the patient was treated with RTX at 6-month intervals and has been in remission for more than 2 years.

Results: As a result, relapses can be observed in AIV cases with standard cyclophosphamide treatment regimen. We concluded that the remission period was prolonged with Rituximab treatment in the patient with frequent relapses with standard treatment.

Keywords: cresentic IG A nephropathy, plasmaferesis treatment, ANCA related vasculitis

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Table 1.

PR3 ANCA	Positive >100	14/02/2017 (1st test)
PR3 ANCA	28.4	06/03/2017 (1st month)
PR3 ANCA	Negative	05/04/2017 (2nd month)
PR3 ANCA	Positive >100	29/09/2017 (8th month)
PR3 ANCA	79.3	25/10/2017 (9th month)

OTHER SITUATIONS (ACHE, INSOMNIA, INAPPROPRIATE MEDICINE TAKING, MEDICINE SIDE EFFECTS)

PS – 51

TWO FALLING CASES WITH POLYPHARMACY AND INAPPROPRIATE DRUG USE

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Case 1: M. Y. 86 years old, male patient.

The patient applied to the internal medicine clinic with the complaints of low back pain, swelling starting from the groin and descending, and loss of strength. The patient had complaints of dizziness and dizziness when he got up for about a month or two. When he stood up two days ago, he fell and hit his chest. The patient, who has been followed up for 15 years due to hypertension, was using 5 mg of amlodipine, while doxazosin was recommended to the patient in the urology outpatient clinic. The patient was diagnosed with MDS 3 months ago, and the darbepoetin alfa was started.

He was diagnosed with Prostate cancer three months ago. Casodex and Zoladex have been suggested by oncology. However, the patient did not use these drugs regularly.

Drugs used: dutaserid 0.5, tamsulosin 0.4, quetiapine 25, acetylsalicylic acid, complex vitamin B12, allopurinol, doxazosin 4 mg, dexketoprofen tramadol, amlodipine 10 mg, frusemide 40 mg

Physical examination: TA: 100/70, standing 85/50. There were +4 edema in the lower extremities, decreased respiratory sounds by listening to the left AC (lung) lower lobe, and rall in the AC lower basal. The patient, who had a Romberg test + detected, had difficulty standing in balance. He tended to fall as he stepped alone. Sarcopenia was not detected in the patient. There was no malnutrition.

The patient who was hospitalized had pancytopenia. Oral vitamin D replacement was initiated for the patient with severe vitamin D deficiency (15 ng/ml). The patient's blood pressure was tried to be kept above 130/80. Doxazosin and amlodipine treatment was discontinued. Other alpha blockers were arranged in consultation with urology. Due to dexketoprofen tramadol, alloprünol, quetiapine, and high vitamin B12 levels, vitamin B12 was evaluated in the inappropriate drug category and stopped.

In the follow-up, the trauma-related pain persisted, and the patient's AC radiograph revealed a rib fracture. Parasetemol and local pain relief creams were recommended.

Case 2: G. U. 76 years old, female patient

The patient was admitted to the internal medicine clinic with the complaint of general condition deterioration, high blood pressure, balance disorder, nausea and vomiting.

The patient, who was followed up for anxiety disorder, hypertension and diabetes mellitus type 2 diagnoses, started to receive Parkinson's treatment for 3 months. The patient had episodes of nausea, vomiting and hypertension that started with treatment. He had an imbalance in between. For this reason, the ACE inhibitor drug used by the family medicine clinic that he applied was discontinued and alpha-blocker and calcium channel blocker was started instead. The patient's complaints did not decrease. A tibial fracture due to a fall occurred in the patient who experienced balance disorder.

Drugs Used: Rupatadine 10 mg, glimeprid 4 mg, doxazosin 4 mg, amlodipine 10 mg linagliptin, calcitriol 0.25 mg, gingobiloba extract, metformin 1000 mg 2*1, abixaban 5 mg 1*1, pantaprozole 40 mg, asemetazine 60 mg, levodopa + carbidopa, rivastigmine, mirtazapine 30 mg, hydroxyzine, cytolapram 10 mg, memantine 10 mg

Physical Examination: TA: 130/80, vital signs are stable. Orientation and cooperations were normal but slowing in perception and bluntness were detected. The left tibia was broken due to a fall. Both lower extremities were edematous. Other system examinations were normal.

Laboratory: HbA1 c 5.4 mmol/mol, 25 OH vitamin D3:13.16 μg/L, GGT: 139 U/L, Triglyceride: 165 mg/dl, TSH: 2.94 mIU/L, Fasting glucose: 72 mg/dl, postprandial glucose: 108 mg/dl Ferritin: 18.7 μg/L Hbg: 11.9 g/dL, Sedim: 26 mm/h, CRP: 5.2 mg/L, faecal occult blood negative.

Urine: Leukocyte +, Klebsiella Pneumoniae in urine culture.

We found that hypoglycemia attacks were observed in the patient's follow-up. Diabetes medications were adjusted to the appropriate HbA1 c level, taking into account the age of the patient. Hydroxyzine and pantaprozole were stopped in the inappropriate drug category. Psychiatry and neurology drugs were consulted with the relevant branch and maintained at the lowest possible dose. Doxazosin and amlodipine treatment was discontinued and the appropriate. ACE inhibitor was started.

Gastroscopy and colonoscopy could not be performed because the patient did not want further examination.

Discussion: Due to the symptoms of elderly patients, many polyclinic applications bring along multiple and inappropriate medication use. The inadequacy of the drugs used and the tendency to close the drug side effects with another drug result in prescription cascade.

Inadequate patient monitoring has dramatic consequences such as fall, stroke, and death in this patient population.

Keywords: falling, polypharmacy, inappropriate drug

GERIATRICS AND COVID-19

PS – 52

AWARENESS OF CAREGIVERS OF ELDERLY PATIENTS FOR COVID-19 PANDEMIA

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Introduction: During the COVID-19 pandemic, the disease caused by the new coronavirus, older people are especially vulnerable to severe illness (1). Caregiving to elderly patients become harder than before, and being well-informed is more critical in this duration.

Methods: This cross-sectional study was conducted for a period of 2 months, from March to May 2020. A questionnaire interrogated awareness and knowledge levels of caregivers. The questionnaire has consisted of general information about pandemic and demographic data. Participants answered the questions from the internet. SPSS-22 was used for data analysis.

Results: The study population was composed of 79 women and 21 men. Sixty-nine percent of the patients were suffered from dementia. 30% of the participants were responsible for caregiving for more than ten years. 76% of the caregivers were willing to take more information. 33% of the caregivers were taking the information from a single source. General knowledge status about pandemics were found to be correlated to education level ($p<0.01$, $r=0.397$).

Conclusions: Caregiving to elderly patients is an essential responsibility in the pandemic. Education levels of caregivers could affect the health status of geriatric patients in this duration. Prospective studies will be better to explain the relationship between health outcomes for geriatric patients and the education levels of their caregivers.

Keywords: COVID-19, elderly, caregiver

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