

TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ



Üç ayda bir yayımlanır • Üyelere ücretsiz olarak gönderilir

Sayı 52 • Ekim – Kasım – Aralık - 2015

ÜÇÜNCÜ ENDOBRIDGE® YILLIK TOPLANTISI GERÇEKLEŞTİRİLDİ



EndoBridge® Celebrates Third Year

The third annual meeting of EndoBridge® – co-hosted by the Society of Endocrinology and Metabolism of Turkey, Endocrine Society, and European Society of Endocrinology – took place in Antalya, Turkey, October 15 – 18, 2015.

Attracting leading endocrinology experts from around the world including 440 colleagues from over 25 countries, the meeting was held in English with simultaneous translation into Russian, Arabic, and Turkish. The three-day program included 23 state-of-the-art lectures, 16 interactive case discussion sessions, and poster case presentations providing a comprehensive update across hormonal disorders.

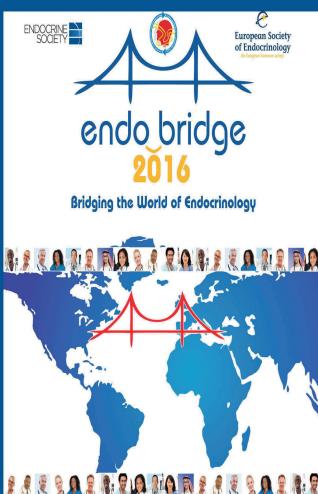
"Endocrinology has become a large and rapidly growing field of medicine that has been instrumental in improving health and addressing pandemics of diabetes, obesity, and cancer," says Bülent Yıldız, MD, a faculty member at Hacettepe University School of Medicine, in Ankara, Turkey, and the founder of EndoBridge®. "The search for contemporary solutions to endocrine disorders is now global in scope. As endocrinologists from different countries and cultures, we really need to learn from each other so that we could help our patients prevent, manage, and treat their diseases and achieve better outcomes."

Yıldız says that when he first imagined bridging the world of endocrinology in 2011, he thought Turkey would be a wonderful venue since it has served as a bridge for hundreds of years between East and West, past and future, and tradition and contemporary. "After conceptualizing EndoBridge®, two years of planning and preparation with collective and rigorous team effort was required to bring it into reality," he explains. "Since we first launched EndoBridge® in 2013, the initiative brought together more than 1,300 physicians and scientists with an interest in hormonal disorders from over 45 countries to share their experience and expertise, and participate in discussions with global leaders of endocrinology."

"I am excited and pleased to see that we move forward together to continue building our bridge in the field of endocrinology while

we celebrate the third annual meeting of EndoBridge®," Yıldız says. "I believe EndoBridge® is a uniquely positioned and highly influential model for advancement of collaboration and a real-world impact in endocrinology across national borders," he adds.

The fourth annual meeting of EndoBridge® will take place in Antalya, Turkey, October 20 – 23, 2016. Further information can be found at www.endobridge.org.



www.endobridge.org

Türkiye Endokrinoloji ve Metabolizma Derneği, Amerikan Endokrin Derneği ve Avrupa Endokrinoloji Derneklerinin ev sahipliğinde yapılan üçüncü EndoBridge® yıllık toplantısı 15-18 Ekim 2015 tarihlerinde Antalya'da gerçekleştirildi. Derneğimiz Genel Sekreteri ve EndoBridge® kurucusu Prof. Dr. Okan Bülent Yıldız, ilk üç yılında kendi alanında dünyada birçok ilke imza atan projenin ulusal sınırların ötesinde konumuya etkin bir diyalog ve işbirliği modeli olmaya devam ettiğini ve bu yıl dünyanın endokrinoloji alanında onde gelen uzmanları ile 25'in üzerinde ülkeden 440 delegeyi buluşturduğunu belirtti. Toplantı her yıl olduğu gibi Türkçe, Rusça ve Arapça eşzamanlı çeviri ile İngilizce olarak yapıldı ve Avrupa Akreditasyon Konseyi tarafından kredilendirildi. Hormonal bozuklıklar konusunda kapsamlı bir güncelleme sunan 3 günlük programda 23 konferans, 16 interaktif vaka tartışması oturumu ve posterli vaka sunumları yer aldı.

Dördüncü EndoBridge® yıllık toplantısı Derneğimiz, Amerikan Endokrin Derneği ve Avrupa Endokrinoloji Derneği işbirliği ile 20-23 Ekim 2016 tarihleri arasında Antalya'da düzenlenecek.



EndoBridge celebrates its third year

Antalya, Turkey, 15–18 October 2015

The annual EndoBridge® meeting attracted world-leading experts, with 440 colleagues from over 25 countries. It was co-hosted by the Society of Endocrinology and Metabolism of Turkey, ESE and the Endocrine Society. The meeting was held in English with simultaneous translation into Russian, Arabic and Turkish.

The 3-day programme included 23 state of the art lectures, 16 interactive case discussion sessions and poster case presentations, providing a comprehensive update across hormonal disorders.

EndoBridge founder, Bülent Yıldız (Ankara, Turkey) reflected, 'Endocrinology has become a large and rapidly growing field of medicine that has been instrumental in improving health and addressing pandemics of diabetes, obesity and cancer. The search for contemporary solutions to endocrine disorders is now global in scope. As endocrinologists from different countries and cultures, we really need to learn from each other so that we can help patients prevent, manage and treat their diseases and achieve better outcomes.'

'I thought Turkey would be a wonderful venue to bridge the world of endocrinology, the country itself having acted as a bridge for hundreds of years between East and West. Since 2013, we have brought together more than 1300 physicians and scientists from over 45 countries to participate in discussions with global leaders in endocrinology.'

The 4th EndoBridge meeting will take place in Antalya, Turkey, on 20–23 October 2016. See www.endobridge.org.

11. HİPOFİZ SEMPOZYUMU VE HİPOFİZ GÖRÜNTÜLEME KURSU TAMAMLANDI

Ankara Üniversitesi Tıp Fakültesi Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, 2004 yılında hipofiz hastalıkları hakkında farkındalıkı artırmak ve bilimsel paylaşılarda bulunmak üzere ilk Hipofiz Sempozyumunu düzenlemiştir. Takip eden yıllarda Hipofiz Sempozyumları, geleneksel hale gelmiş, her yıl giderek artan katılım ve bilimsel kalitesi yüksek içerikle yapılmaya devam edilmiştir. 11. Hipofiz Sempozyumu 31.10.2015 tarihinde, yine Ankara Üniversitesi Tıp Fakültesi Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı tarafından, bu tarihe kadar olan en kalabalık katılım sağlanarak, 364 hekimin iştiraki ile gerçekleştirılmıştır. Bu yıl hekimlerden gelen yoğun istek üzerine sempozyumdan bir gün önce, 30.11.2015 tarihinde, 224 hekimin katılımıyla Hipofiz Görüntüleme Kursu yapılmıştır. Prof. Dr. Demet Çorapçıoğlu, Prof. Dr. Rıfat Emral, Prof. Dr. Mustafa Şahin ve yeni öğretim üyesi olan Doç. Dr. Özgür Demir tarafından hazırlanan kurs ve sempozyum büyük bir ilgi ve dikkatle izlenmiş, konu hakkında deneyim paylaşımı etkin bir biçimde gerçekleşmiştir.

İlk kez düzenlenenmiş olan Hipofiz Görüntüleme Kursu'nun konuşmacıları genel olarak radyoloji uzmanlığı olan, farklı fakülté öğretim üyeleri arasından seçilmiş ve yanı sıra endokrinoloji uzmanlarının, iç hastalıkları asistan ve uzmanlarının, nükleer tip

uzmanlarının, hatta nöroşirurji uzmanlarının da yoğun ilgi göstermesiyle başarılı bir kurs olarak tamamlanmıştır. Gerek Hipofiz Sempozyumu gerekse Hipofiz Görüntüleme Kursu'nun farklı branşlardan çok sayıda hekimin katılımıyla gerçekleşmiş olması, fakultemizin Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı'nın hipofiz hastalıkları alanında yıllardır eksikliği duyulan multidisipliner yaklaşımı da başardığının bir göstergesidir.

Bizimle kursumuzda, sempozyumumuzda buluşan, katkıda bulunan ve katılan tüm değerli meslektaşlarımıza içten teşekkürlerimizi sunarız.



4. LİPİD METABOLİZMASI BOZUKLUKLARI EĞİTİM KURSU TAMAMLANDI

Türkiye Endokrinoloji ve Metabolizma Derneği, Obezite, Lipid Metabolizması- Hipertansiyon Çalışma Grubu'nun organize ettiği, Erzurum Atatürk Üniversitesinin katkılarıyla "4 Lipid Metabolizması ve Bozuklukları Eğitim Kursu" 14 Kasım 2015 Cumartesi günü Atatürk Üniversitesi Kültür Sitesi Mavi Salon Erzurum'da gerçekleştirildi. Dislipidemik hastanın değerlendirilmesi ve tedavileri, özel durumlarda görülen lipid bozuklıklarının değerlendirilmesi ve tedavileri örnek vakalarla anlatıldı. Katılımcıların soruları ile de bilgiler pekiştirildi. Kursa yaklaşık 200 kadar değişik branşdan hekim (Endokrinoloji uzmanı, Dahiliye uzmanı, Aile hekimi ve pratisyen hekim) katıldı. Kurs, lipidoloji konusunda tecrübeli yaklaşık 15 hocanın katılımıyla gerçekleştirildi.



ENDOKRİN ACİLLER KURSU

Endokrin Aciller kursu start aldı. İlk Ekim ayında 200 üzerinde hekimin katılımı ile İstanbul'da gerçekleşen kursun ikincisi Aralık 2015'te Adana'da yapıldı. Endokrin aciller kursunun 3.sü 20 Şubat'ta, İzmirde gerçekleştirilecektir.



ENDOKRİNOLOGLAR İÇİN TİROID KANSERİ, İLERİ KLINİK VE SONOGRAFİK TANI VE TAKİP KURSU TAMAMLANDI

03 Ekim tarihinde Ankara Mövenpick Otel'de TEMD Tiroid Çalışma Grubumuzun düzenlediği USG Kursuna 60 hekim katılımı ile gerçekleşmiştir. Ankara Üniversitesi Endokrinoloji ve Metabolizma Bilim Dalı Öğretim üyesi, Prof. Dr. Sevim Güllü ve Ankara Özel Güven Hastanesi Endokrinoloji ve Metabolizma bölümünde görevli Doç. Dr. Alptekin Gürsoy'un da katıldığı kursun programında: Endokrinologlar Arasında Kanser Tanı Takip İmkanlarının Geliştirilmesi İçin Öneriler; Tnm Klasifikasiyonu ve Evreleme ile Risk Oryante Differansiyel Tiroid Kanser Takibi, Takip Sıklığı, Rhtsh Stimülasyonu, Tsh Süpresyon Derecesi, Süresi; Değişik Vakalar ve Preoperatif Videolarla Tiroid Kanserleri; Tirogloblin ve Kalsitonin Serum ve Doku Düzeylerinin Tanı ve Takipte Kullanımı, Yıkama Tekniği, Sitolojiye Üstünlükleri; sporadik ve Risk Oryante Familyal Meduller Tiroid Kanser Takibi; Boyun Kompartmanları ve Tiroid Yatağı Nükslerini Saptamada Sonografinin Yeri, Videolarla Değişik Nüks Vakalar ve Özellikleri konuları ele alındı.

Kursun ardından klinik pratikte USG görüntülemesinin incelikleri ve teknikleri uygulamalı olarak gösterildi.



TİROKURS (KONYA) TAMAMLANDI

19 Aralık tarihinde Konya'da gerçekleştirilen Aile Hekimleri için tiroid kursuna yaklaşık 90 hekim katılımı oldu. Kurs açılışını TEMD Başkanı Sayın Prof. Dr. Sait Gönen gerçekleştirdi. Konya'dan Necmettin Erbakan Üniversitesi Endokrinoloji ve Metabolizma BD Başkanı Prof. Dr. Ahmet Kaya ve öğretim görevlisi Doç. Dr. Mustafa Kulaksızoğlu'nun lokal düzenlerme kurulu olduğu toplantı TEMD Tiroid Çalışma Grubu başkanı Sayın Prof. Dr. Murat Faik Erdoğan, Prof. Dr. Sevim Güllü, Prof. Dr. Mehtap Çakır ve Doç. Dr. Alptekin Gürsoy'un katılımlarıyla düzenlenmiştir. Programda özellikle: Tiroid glandı, Tiroid Hormonları (T₃, T₄), TSH ve Tiroid oto antikorlarının, klinik anımları ve kullanımları. Yeni Doğan, Okul Çağı Çocuğu ve Gebelikte iyot gereksinimi, iyotlu tuz kullanımı ve risk gurubu popülasyona iyot desteği; Vakalar ile subklinik ve aşıkar, geçici ve kalıcı Hipotiroidi; Kime ne zaman, ne kadar tiroid hormonu başlanır. Replasman takibi nasıl yapılır? Gebeliğe hazırlık ve gebelikte özellikler nelerdir?; Vakalar ile aşıkar ve subklinik hipertiroidi, Türkiye deki en sık nedenleri, Tiroid Nodüllerine yaklaşım konusunda Aile Hekimleri için genel bilgiler. Her nodül kanser midir? Nodüller, kimler tarafından nasıl değerlendirilmelidir? Nodül eşittir cerrahi



midir? Her hastanede tiroid cerrahisi yapılabılır mı? Tiroid ameliyatlarının planlanması ve postoperatif benign ve malign vakaların takibinde aile hekiminin rolü ne olabilir? kabaca tedavi seçenekleri nelerdir. Aile Hekimi tirotoksik hastayı yönlendirmede, uzman tarafından planlanan tedavinin takibinde ne gibi roller oynayabilir; Uzman gözü ile Konya ve çevresinde iyot eksikliğine yaklaşım, tiroid hastalıkları, tanı ve tedavisindeki problemler konuları ele alınmıştır.

Kongre, Kurslar ve Sempozyumlar

The poster features a blue background with a large white graphic of a triangle pointing downwards. Inside the triangle, the text is arranged as follows:

**38.
TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
HASTALIKLARI
KONGRESİ**

11 - 15 MAYIS 2016
&
2. ULUSAL LİPİD SEMPOZYUMU

14 MAYIS 2016

CORNELIA DIAMOND HOTEL
ANTALYA

A circular logo in the top right corner contains a stylized profile of a head with a red and yellow patterned headdress, surrounded by concentric circles.

The poster features a blue world map with a red outline of the Golden Gate Bridge spanning the Pacific Ocean. Above the map, the text "endo bridge" is written in a large, lowercase, sans-serif font, with "endo" above "bridge". Below "bridge" is a yellow 3D-style "2016". At the top left is the "ENDOCRINE SOCIETY" logo, which includes a stylized blue and white globe icon. At the top right is the "European Society of Endocrinology" logo, which includes a blue and white globe icon. The bottom of the poster has a decorative border of small, diverse human faces. At the very bottom, the website "www.endobridge.org" is written in a small, white, sans-serif font.

Bilimsel Kongreler, Ulusal ve Uluslararası Sempozyumlar

- 09 Ocak 2016
Osteoporoz ve Metabolik Kemik Hastalıkları Kursu
Hilton, Kozyatağı, İstanbul
www.temd.org.tr
- 20 Şubat 2016
3. Endokrin Aciller Kursu
Swissotel Büyük Efes, İzmir
www.temd.org.tr
- 25-28 Şubat 2016
18th ESE Postgraduate Training Course on Endocrinology, Diabetes and Metabolism Croatia
<http://esepostgraduate2016.endokrinologija.com.hr/> +
- 04-06 Mart 2016
4. Adrenal Gonad Sempozyumu
Wellborn Hotel, Kocaeli
www.temd.org.tr
- 14-17 Nisan 2016
2016 World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases
Malaga, Spain
<http://www.wco-iof-esceo.org/>
- 11-15 Mayıs 2016
38. Türkiye Endokrinoloji ve Metabolizma Hastalıkları Kongresi ve 2. Ulusal Lipid Sempozyumu
Cornelia Diamond Otel, Belek, Antalya
<http://temhk2016.org/2016/>
- 28-31 Mayıs 2016
ECE 2016
Munich, Germany
<http://www.ece2016.org/>
- 01-04 Haziran 2016
European Obesity Summit - EOS 2016
Gothenburg, Sweden
<http://www.obesity-summit.eu/>
- 22-25 Ağustos 2016
33rd World Congress of Internal Medicine
Bali, Indonesia
<http://www.wcimbal2016.org/>
- 31 Ağustos - 04 Eylül 2016
International Congress of Endocrinology 2016
Beijing, China
<http://www.endosociety.com/events.html>
- 03 - 06 Eylül 2016
39th Annual Meeting of the ETA
Hotel Scandic Copenhagen, Denmark
<http://www.eta2016.com/>
- 21-25 Eylül 2016
86th Annual Meeting of the American Thyroid Association
Denver, Colorado
www.thyroid.org/86th-annual-meeting-ata/
- 20-23 Ekim 2016
EndoBridge 2016
Cornelia Diamond Hotel, Belek, Antalya
www.endobridge.org
- 19-22 Ekim 2016
17th Congress of the European Neuroendocrine Association
Palazzo Mezzanotte, Milan, Italy
<http://www.eneassoc.org/>

Üyelerimizden Literatür Seçmeleri

THE RELATIONSHIP BETWEEN OXIDATIVE STRESS AND AUTOIMMUNITY IN HASHIMOTO'S THYROIDITIS.

Ates I¹, Yilmaz FM², Altay M², Yilmaz N², Berker D², Güler S².
Eur J Endocrinol. 2015 Dec;173(6):791-9. doi: 10.1530/EJE-15-0617. Epub 2015 Sep 4.

Objective: We have aimed to study the relation between Hashimoto's thyroiditis (HT) and thyroid autoantibodies and oxidative stress parameters in euthyroid, subclinical and overt hypothyroid stages.

Design and methods: A total of 124 patients were included in the study; 93 of whom were newly diagnosed with HT (31 patients in each of the euthyroid, subclinical hypothyroid and overt hypothyroid subgroups), aged over 18 and had not received any prior treatment and 31 of whom were healthy volunteers.

Results: Total oxidant status (TOS) and oxidative stress index (OSI) levels were higher, and total antioxidant status (TAS) and total thiol and arylesterase levels were lower in the overt hypothyroid group compared to other groups. TOS and OSI levels increased, and TAS levels decreased significantly in each phase from euthyroid, subclinical hypothyroid, to overt hypothyroid subgroups among HT patients. There was a negative correlation between TAS, log (paraoxonase1) and paraoxonase1/HDL and anti-thyroid peroxidase and a negative correlation between anti-thyroglobulin and total thiol. It was also determined that overt hypothyroidism was an individual predictor that effects all of the oxidative stress parameters, but not total thiol, levels.

Conclusion: Our results suggest that oxidative stress increases continuously during the development of subclinical hypothyroidism and overt hypothyroidism in patients with HT. To determine whether this is a cause or result, randomized, controlled trials that study the effect of antioxidant treatment on the development of overt hypothyroidism and its consequences, e.g., increase in total cholesterol levels, may be performed in euthyroid and/or subclinical hypothyroid patients with HT.

SERUM IMMUNOGLOBULIN G4 LEVELS ARE ELEVATED IN PATIENTS WITH GRAVES' OPHTHALMOPATHY.

Bozkırlı E¹, Bakiner OS¹, Ersozlu Bozkırlı ED², Eksi Haydardedeoglu F¹, Sizmaz S³, Torun AI¹, Ertorer ME¹.
Clin Endocrinol (Oxf). 2015 Dec;83(6):962-7. doi: 10.1111/cen.12671. Epub 2014 Dec 12.

Objective: Recent studies have shown close association between serum Immunoglobulin G4 (IgG4) levels and forms of autoimmune thyroiditis. However, there are limited data about the relationship between IgG4 and Graves' ophthalmopathy (GO). In the present study, we aimed to determine the possible association between IgG4 and GO.

Design: Cross-sectional study.

Patients: Sixty-five patients with Graves' disease (GD) and 25 healthy controls were recruited into the study. Thirty-two of these patients had GO.

Measurements: Serum IgG4 levels, thyroid functions and thyroid volumes were measured in all participants. Ophthalmological examination including Hertel's exophthalmometer readings (HER), Schirmer's test (ST), 'NO SPECS' classification and clinical activity score evaluation (CAS) were performed to all patients with GD.

Results: IgG4 levels were significantly elevated in patients with Graves' disease compared to controls ($P = 0.0001$). Also, IgG4 levels were significantly higher in patients with and without GO when compared to control subjects ($P = 0.0001$ and $P = 0.002$, respectively). Furthermore, IgG4 levels were significantly higher in the GO group compared with GD patients without GO ($P = 0.024$). IgG4 levels were observed to increase in parallel to CAS. Compared with other GD patients, 15 GD patients with serum IgG4 levels ≥ 135 mg/dl had higher CAS scores ($P = 0.012$). None of the factors including, TSH, T3, T4 levels, thyroid volume, HER and ST measurements, affect IgG4 levels as an independent factor.

Conclusion: IgG4 levels are evidently increased in patients with GD, and there is a possible relationship between IgG4 and GO. Our results suggest that IgG4 may be helpful in screening GD patients with high risk for GO and may well become a good indicator for the selection of right medication in the future.

CAN A GLUCAGON STIMULATION TEST CHARACTERIZED BY LOWER GH CUT-OFF VALUE BE USED FOR THE DIAGNOSIS OF GROWTH HORMONE DEFICIENCY IN ADULTS?

Diri H¹, Karaca Z¹, Simsek Y¹, Tanrıverdi F¹, Unluhizarci K¹, Selcuklu A², Kelestimir F³.

Pituitary. 2015 Dec;18(6):884-92. doi: 10.1007/s11102-015-0666-1.

Objective: The aim of this study was to assess diagnostic values of insulin tolerance test (ITT), glucagon stimulation test (GST), and insulin like growth factor-I (IGF-I) level, to find optimal GH cut-off values for GST, and to evaluate efficiencies of patient age, gender, body-mass index (BMI), and additional pituitary hormone deficiencies (PHDs) in the diagnosis of growth hormone deficiency (GHD).

Study Design: This retrospective study involved 216 patients with a pituitary disease and 26 healthy controls. Age, gender, BMI, medical histories, and hormonal data including baseline and stimulated hormone values were evaluated. Three cut-off values for peak GH responses to stimulation tests were evaluated: (a) 3.00 µg/L on ITT, (b) 3.00 µg/L on GST, and (c) 1.07 µg/L on GST.

Results: According to the ITT, GST with 3.00 µg/L cut-off, and GST with 1.07 µg/L cut-off, GHD was present in 86.1, 74.5, and 54.2% patients, respectively. Patient age, BMI, and number of PHDs, but not gender, were found to be correlated with IGF-I and peak GH concentrations. All patients with an IGF-I concentration ≤95 ng/ml or ≥3 PHD had GHD. None of the patients with adequate GH response to the GST with 1.07 µg/L cut-off, but blunted responses to ITT and GST with 3.00 µg/L cut-off, had ≥3 PHDs. 12 out of 26 (46.2%) healthy subjects failed the GST with 3.00 µg/L cut-off, but not with 1.07 µg/L cut-off.

Conclusions: Patient age, IGF-I, BMI, and number of PHDs are efficient factors associated with the diagnosis of GHD. A 4 h GST with a diagnostic GH threshold of 1.07 µg/L seems to be a good diagnostic method for GHD.

SHEEHAN'S SYNDROME: NEW INSIGHTS INTO AN OLD DISEASE.

Diri H¹, Karaca Z¹, Tanrıverdi F¹, Unluhizarci K¹, Kelestimir F².
Endocrine. 2016 Jan;51(1):22-31. doi: 10.1007/s12020-015-0726-3. Epub 2015 Sep 1.

Sheehan's syndrome (SS) is a parturition-related pituitary disease resulting from severe postpartum hemorrhage and can present with varying degrees of pituitary insufficiency. Pathological and clinical findings of SS were first described by Harold L. Sheehan in the previous century. Although his definitions are still valid, various studies and reports including new data have subsequently been published. Additionally, the diagnosis of SS has often been overlooked and thus delayed for long years due to its nonspecific signs and symptoms. Therefore, a large number of patients may be remained undiagnosed and untreated. SS is not as rare as assumed in developed countries, probably due to migrant women and unawareness of physicians regarding the syndrome. In this review, we provide a detailed review of the epidemiology, etiopathogenesis, clinical, laboratory and radiological features, new diagnostic criteria, differential diagnosis, and treatment of SS.

IRISIN LEVELS IN THE PROGRESSION OF DIABETES IN SEDENTARY WOMEN.

Duran ID¹, Gülçelik NE², Ünal M², Topçuoğlu C³, Sezer S³, Tuna MM², Berker D², Güler S².

Clin Biochem. 2015 Dec;48(18):1268-72. doi: 10.1016/j.clinbiochem.2015.07.098. Epub 2015 Jul 31.

Context: The recently discovered peptide irisin has been hypothesized to be a regulator of body metabolism. However, studies ended up with controversial results. In the present study, we aimed to investigate irisin levels in sedentary women at different stages of prediabetes.

Design, setting, and subjects: We performed a cross-sectional analysis of circulating levels of irisin in 263 females similar for age and body mass index (BMI) and the groups included 52 normal glucose tolerance (NGT), 60 isolated impaired fasting glucose (IFG), 36 isolated impaired glucose tolerance (IGT), 65 both IFG and IGT and 50 type 2 diabetic patients. All patients were exercising less than 150min/week.

Results: Plasma irisin levels were significantly lower in IFG+IGT ($2.86 \pm 0.5\mu\text{g/mL}$, p: 0.019) and T2DM ($2.83 \pm 0.5\mu\text{g/mL}$, p: 0.005) patients compared to NGT ($3.16 \pm 0.3\mu\text{g/mL}$) patients. After age adjustment there was a negative correlation between irisin and BMI ($r: -0.141$; p: 0.031), postprandial glucose (PPG) ($r: -0.142$; p: 0.030), low density lipoprotein-cholesterol (LDL-C) ($r: -0.138$; p: 0.035) and triglyceride (TG) ($r: -0.214$; p: 0.001) and a positive correlation between irisin and high density lipoprotein-cholesterol (HDL-C) ($r: 0.142$; p: 0.030). After adjustment for age and BMI; PPG ($r: -0.137$; p: 0.037), LDL-C ($r: -0.143$; p: 0.029) and TG ($r: -0.203$; p: 0.002) were considered to correlate with irisin levels. Subgroup analysis revealed that TG levels were correlated with irisin levels in IFG ($r: -0.347$; p: 0.014) and IGT ($r: -0.397$; p: 0.030) patients.

Conclusion: In our cohort of sedentary women, irisin levels were lower in patients with IFG+IGT and with diabetes than in patients with NGT. There is no correlation between irisin levels and BMI. Irisin is a myokine decreasing gradually with the progression of glucose intolerance and T2DM and is not correlated with BMI in sedentary women.

REAL-TIME SONOELASTOGRAPHY AND ULTRASOUND EVALUATION OF THE ACHILLES TENDON IN PATIENTS WITH DIABETES WITH OR WITHOUT FOOT ULCERS: A CROSS SECTIONAL STUDY.

Evranos B¹, Idilman I², İpek A², Polat SB³, Cakir B³, Ersoy R³.
J Diabetes Complications. 2015 Nov-Dec;29(8):1124-9. doi: 10.1016/j.jdiacomp.2015.08.012. Epub 2015 Aug 20.

Background: Diabetes mellitus (DM) is an endocrine disease characterized by metabolic abnormalities and long-term complications. The Achilles tendon (AT) plays an important role in foot biomechanics. We aimed to investigate the effect of DM on the Achilles tendon, which may contribute to long-term complications in the foot-ankle complex.

Methods: Seventy-eight patients with diabetes, with (35 patients, group I) or without (43 patients, group II) foot ulcers were recruited from the endocrinology clinic. Thirty-three age-, gender-, and BMI-matched healthy individuals were selected as controls. All participants underwent ultrasonography and sonoelastography of their AT in order to evaluate Achilles tendon thickness (ATT) and stiffness (ATS). Each patient was also tested for fasting plasma glucose (FPG) and glycosylated hemoglobin (HbA1C) as a measure of diabetes control. Other chronic complications were also evaluated in all patients with diabetes.

Results: The AT was significantly thicker in group I compared to group II and the controls. HbA1C, FPG, and duration of diabetes were higher in group I. We observed that ATT was positively correlated with neuropathy,

retinopathy, nephropathy, peripheral arterial disease and coronary arterial disease in group II while this correlation was not detected in group I. ATS was reduced in group I more than group II and control groups.

Conclusion: Changes in the structure of the AT may precede foot ankle disorders in patients with diabetes. This is the first study that reported the results of sonoelastosonography of AT in patients with diabetes and revealed the correlation between ATT and other chronic complications of diabetes.

OSTEOPOROSIS AND SILENT VERTEBRAL FRACTURES IN NURSING HOME RESIDENT ELDERLY MEN IN TURKEY.

Kucukler FK¹, Simsek Y², Turk AÇ³, Arduc A⁴, Guler S².

J Clin Densitom. 2015 Jun 9; pii: S1094-6950(15)00120-1. doi: 10.1016/j.jocd.2015.05.064.

Osteoporosis is an important cause of vertebral fractures and there is an increased risk for osteoporosis in nursing home residents. Most of the men with osteoporosis and osteoporotic fractures are not diagnosed and do not receive treatment. Our study aim was to determine osteoporosis and silent vertebral fracture prevalence in male nursing home residents in Corum, Turkey. This cross-sectional study included 2 groups of patients: 71 male nursing home residents (nursing home group) with a mean age of 76.0 ± 0.8 years and 44 men living in their own homes (control group) with a mean age of 74.4 ± 0.7 years. Bone mineral densitometry was performed in all subjects, and results were evaluated according to the World Health Organization criteria. Vertebral deformity was evaluated using the spinal deformity index, and fracture risk was calculated using the Fracture Risk Assessment Tool. In all participants, serum calcium, phosphorus, 25(OH) vitamin D, parathyroid hormone, and alkaline phosphates levels were measured and medical histories were recorded. Osteoporosis was detected in 25.3% of men residing in nursing homes and in 8.8% of men living in their own homes. Silent vertebral fracture was present in 27.8% of patients older than 65 years. Vertebral fracture rate was higher in nursing home residents (42.2%) than men living in their own homes (17.6%); 5.6% of nursing home group and 8.9% of control group patients were aware of their fractures. Our results demonstrated that male nursing home residents are at a higher risk for both osteoporosis and vertebral fractures compared to the men living in their own homes.

NEUTROPHIL-TO-LYMPHOCYTE RATIO IS NOT A PREDICTOR OF LIVER HISTOLOGY IN PATIENTS WITH NONALCOHOLIC FATTY LIVER DISEASE.

Kara M¹, Dogru T, Genc H, Sertoglu E, Celebi G, Gurel H, Kayadibi H, Cicek AF, Ercin CN, Sonmez A.

Eur J Gastroenterol Hepatol. 2015 Oct;27(10):1144-8. doi: 10.1097/MEG.0000000000000405.

Objectives: It has been reported that the neutrophil-to-lymphocyte ratio (NLR) can be measured relatively easily and can serve as a valuable index for much clinical pathology. The aim of this study was to investigate the association between NLR and hepatic histological findings in patients with nonalcoholic fatty liver disease (NAFLD).

Design and methods: A total of 226 consecutive patients with biopsy-proven NAFLD [nonalcoholic steatohepatitis (NASH, n=105), borderline-NASH (n=74), and simple steatosis (n=47)] were enrolled. NASH and fibrosis were diagnosed histologically using the NAFLD Clinical Research Network criteria.

Results: Significant differences were found in aspartate aminotransferase ($P<0.001$), alanine aminotransferase ($P<0.001$) levels, and white blood

cell ($P=0.007$) and neutrophil counts ($P=0.042$) between the three groups of patients. In addition, significantly higher BMI ($P=0.024$), waist circumference ($P=0.011$), aspartate aminotransferase ($P=0.003$), alanine aminotransferase ($P=0.005$), insulin ($P=0.008$), and homeostasis model assessment-insulin resistance ($P=0.009$) levels were found in patients with fibrosis ($n=133$) in comparison with those without fibrosis ($n=93$). There was no correlation between NLR and glucose, homeostasis model assessment-insulin resistance, lipid parameters, and the NAFLD activity score. Analysis of the NLR in relation to histological findings also showed no association between these parameters.

Conclusion: To the best of our knowledge, this is the largest study that has investigated these relationships in this clinically relevant condition. The findings of the present study show that NLR is not associated with the severity of hepatic inflammation or fibrosis and thus cannot be recommended as a surrogate marker of liver injury in patients with NAFLD.

CENTRAL INJECTION OF CDP-CHOLINE SUPPRESSES SERUM GHRELIN LEVELS WHILE INCREASING SERUM LEPTIN LEVELS IN RATS.

Kiyici S¹, Basaran NF², Cavun S³, Savci V⁴.

Eur J Pharmacol. 2015 Oct 5;764:264-70. doi: 10.1016/j.ejphar.2015.07.014. Epub 2015 Jul 7.

In this study we aimed to test central administration of CDP-choline on serum ghrelin, leptin, glucose and corticosterone levels in rats. Intracerebroventricular (i.c.v.) 0.5, 1.0 and 2.0 µmol CDP-choline and saline were administered to male Wistar-Albino rats. For the measurement of serum leptin and ghrelin levels, blood samples were obtained baseline and at 5, 15, 30, 60 and 120 min following i.c.v. CDP-choline injection. Equimolar doses of i.c.v. choline (1.0 µmol) and cytidine (1.0 µmol) were administered and measurements were repeated throughout the second round of the experiment. Atropine (10 µg) and mecamylamine (50 µg) were injected intracerebroventricularly prior to CDP-choline and measurements repeated in the third round of the experiment. After 1 µmol CDP-choline injection, serum ghrelin levels were suppressed significantly at 60 min ($P=0.025$), whereas serum leptin levels were increased at 60 and 120 min ($P=0.012$ and $P=0.017$ respectively). CDP-choline injections also induced a dose- and time-dependent increase in serum glucose and corticosterone levels. The effect of choline on serum leptin and ghrelin levels was similar with CDP-choline while no effect was seen with cytidine. Suppression of serum ghrelin levels was eliminated through mecamylamine pretreatment while a rise in leptin was prevented by both atropine and mecamylamine pretreatments. In conclusion; centrally injected CDP-choline suppressed serum ghrelin levels while increasing serum leptin levels. The observed effects following receptor antagonist treatment suggest that nicotinic receptors play a role in suppression of serum ghrelin levels, whereas nicotinic and muscarinic receptors both play a part in the increase of serum leptin levels.

CHARACTERIZATION OF THE MOLECULAR GENETIC PATHOLOGY IN PATIENTS WITH 11B-HYDROXYLASE DEFICIENCY.

Mooij CF^{1,2}, Parajes S¹, Rose IT¹, Taylor AE¹, Bayraktaroglu T³, Wass JA⁴, Connell JM⁵, Ray DW⁶, Arlt W¹, Krone N¹.

Clin Endocrinol (Oxf). 2015 Nov;183(5):629-35. doi: 10.1111/cen.12834. Epub 2015 Jul 14.

Objective: Steroid 11β-hydroxylase (CYP11B1) deficiency (11OHD) is the second most common form of congenital adrenal hyperplasia. Nonclassic or mild 11OHD appears to be a rare condition. Our study

assessed the residual CYP11B1 function of detected mutations, adding to the spectrum of mild 11OHD, and illustrates the variability of the clinical presentation of 11OHD.

Patients and methods: Five patients presented with mild to moderate 11OHD. Two women presented with mild hirsutism and in one case with secondary amenorrhoea. Two men presented with precocious pseudopuberty, gynaecomastia and elevated blood pressure. One 46,XX female patient was diagnosed with virilization of the external genitalia 2 years after birth. Direct DNA sequencing was carried out to perform CYP11B1 mutation analysis. The CYP11B1 mutations were functionally characterized using an in vitro expression system.

Results: CYP11B1-inactivating mutations were detected in all patients. Two novel missense mutations (p.P42L and p.A297V) and the previously characterized p.R143W mutation had residual CYP11B1 activities between 10% and 27%. A novel p.L382R and the previously uncharacterized p.G444D mutation both caused complete loss of CYP11B1 enzymatic activity.

Conclusion: Mutations causing partial impairment of 11 β -hydroxylase activity (residual activity of 10% or above) are associated with a less severe clinical presentation of 11OHD, which can be classified as a nonclassic form. Our data demonstrate that patients with nonclassic 11OHD can present with androgen excess, precocious pseudopuberty and increased blood pressure. Timely diagnosis of nonclassic 11OHD and consequently initiation of personalized treatment is essential to prevent co-morbidities caused by androgen excess and hypertension.

IS IDIOPATHIC HIRSUTISM (IH) REALLY IDIOPATHIC? mRNA EXPRESSIONS OF SKIN STEROIDOGENIC ENZYMES IN WOMEN WITH IH.

Taheri S¹, Zararsiz G¹, Karaburlu M², Ozgun MT², Karaca Z², Tanrıverdi F², Dundar M², Kelestimur F², Unluhizarci K³.

Eur J Endocrinol. 2015 Oct;173(4):447-54. doi: 10.1530/EJE-15-0460. Epub 2015 Jul 20.

Objective: Hirsutism results from hyperandrogenemia and/or exaggerated androgen responsiveness. Among various causes of hirsutism, some patients do not exhibit androgen excess which is called idiopathic hirsutism (IH). The pathogenesis of IH could not so far be clearly established.

Design: To investigate the mRNA expression of aromatase enzyme and the other enzymes having functional roles in the steroidogenic pathway, in freshly obtained skin tissue from subumbilical skin and the arm of the patients with IH and healthy women.

Methods: Twenty-one women with IH and 15 healthy women were included in the study. We aimed to determine mRNA expressions of genes associated with local androgen synthesis and metabolism (CYP11A1, STS, CYP19A1, SRD5A1, SRD5A2, HSD3B1, AR, COMT, ESR1, ESR2, HSD3B2, CYP17A1, SULT2A1, SULT1E1, HSD17B2, IL6, TGFB1, TNFA) from skin biopsy and blood samples of patients with IH and the data compared with healthy subjects.

Results: Patients with IH exhibit significantly lower interleukin 6 (IL6) mRNA expression and higher steroid sulphatase (STS) and hydroxysteroid (17 β) dehydrogenase 2 (HSD17B2), gene mRNA expression, respectively, in the subumbilical region skin biopsies. Similarly, patients with IH exhibit significantly lower IL6 mRNA expression and higher STS and HSD17B2 gene mRNA expression, respectively, in the arm skin compared to healthy women's subumbilical region.

Conclusions: In both arm and subumbilical skin biopsy of patients with IH, we observed an up-regulation of HSD17B2 and STS, decreased IL6 mRNA expression, probably determining an increase in the local amount of active androgens, which could then be used as substrate for other androgen metabolic routes.

CIRCULATING LEVELS OF OREXIN-A, NESFATIN-1, AGOUTI-RELATED PEPTIDE, AND NEUROPEPTIDE Y IN PATIENTS WITH HYPERTHYROIDISM.

Tohma Y¹, Akturk M¹, Altinova A¹, Yassibas E², Cerit ET¹, Gulbahar O³, Arslan M¹, Sanlier N², Toruner F¹.

Thyroid. 2015 Jul;25(7):776-83. doi: 10.1089/thy.2014.0515. Epub 2015 May 19.

Background: There is insufficient information about the appetite-related hormones orexin-A, nesfatin-1, agouti-related peptide (AgRP), and neuropeptide Y (NPY) in hyperthyroidism. The aim of the present study was to investigate the effects of hyperthyroidism on the basal metabolic rate (BMR) and energy intake, orexin-A, nesfatin-1, AgRP, NPY, and leptin levels in the circulation, and their relationship with each other and on appetite.

Methods: In this prospective study, patients were evaluated in hyperthyroid and euthyroid states in comparison with healthy subjects. Twenty-one patients with overt hyperthyroidism and 33 healthy controls were included in the study.

Results: Daily energy intake in the hyperthyroid state was found to be higher than that in the euthyroid state patient group ($p=0.039$). BMR was higher in hyperthyroid patients than the control group ($p=0.018$). Orexin-A was lower and nesfatin-1 was higher in hyperthyroid patients compared to the controls ($p<0.001$), whereas orexin-A increased and nesfatin-1 decreased after euthyroidism ($p=0.003$, $p<0.001$). No differences were found in the AgRP, NPY, and leptin levels between the hyperthyroid and euthyroid states and controls ($p>0.05$). Orexin-A correlated negatively with nesfatin-1 ($p=0.042$), BMR ($p=0.013$), free triiodothyronine (fT3; $p<0.001$), and free thyroxine (fT4; $p<0.001$) and positively with thyrotropin (TSH; $p<0.001$). Nesfatin-1 correlated negatively with orexin-A ($p=0.042$) and TSH ($p<0.001$) and positively with fT3 ($p=0.005$) and fT4 ($p=0.001$). In the regression analysis, "diagnosis of hyperthyroidism" was the main factor affecting orexin-A ($p<0.001$).

Conclusions: Although it seems that no relationship exists among orexin-A, nesfatin-1, and increased appetite in hyperthyroidism, the orexin-A and nesfatin-1 levels are markedly affected by hyperthyroidism.

THYROID NODULES WITH 2 PRIOR INADEQUATE FINE-NEEDLE ASPIRATION RESULTS: EFFECT OF INCREASING THE DIAMETER OF THE NEEDLE.

Ucler R, Kaya C, Çuhacı N, Tam AA, Usluogulları CA, Balkan F, Ersoy R, Cakır B.

Endocr Pract. 2015 Jun;21(6):595-603. doi: 10.4158/EP14482.0R.

Abstract

Objective: The major limitation of ultrasound-guided fine-needle aspiration biopsy (US-FNAB) procedures of thyroid nodules are the cytologically nondiagnostic results. The role of increasing the diameter of the needle in the third FNAB (FNAB#3) due to inadequate cytology has as yet not been investigated. The aim of the present study was to evaluate whether increasing the needle diameter could improve the cytologic sampling of thyroid nodules following 2 previous nondiagnostic US-FNAB results.

Methods: Between July 2012 and December 2012, 140 consecutive patients with 2 prior nondiagnostic US-FNAB results were enrolled in this prospective investigation. Group 22G consisted of 70 patients (78.5% women; mean age, 52 years) having nodules examined with a 22-gauge (G) needle. Group 27G consisted of 70 patients (75.7% women; mean age, 53 years) having nodules examined with a 27-G needle.

Results: The rate of nondiagnostic FNAB results was 42.8% (30 of 70) in group 22G and 64.3% (45 of 70) in group 27G, which was a significant difference ($P = .011$). The large-bore (22 G) needle was found to be statistically significantly superior compared with the small-bore (27 G) needle in diagnostic ability for predominantly solid ($P = .014$), irregular ($P = .013$), and halo-free ($P = .021$) nodules. The accuracy rate was 64.6 and 38% for large-bore (22 G) and small-bore (27 G) needles, respectively.

Conclusion: The results of our study showed that increasing the needle lumen diameter significantly improves diagnostic performance in terms of adequate aspirated material and diagnostic accuracy rate following 2 prior nondiagnostic US-FNABs.

Abbreviations: AUS = atypia of undetermined significance FNAB = fine-needle aspiration biopsy G = gauge NPV = negative predictive value PPV = positive predictive value US = ultrasound.

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