

TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ



Üç ayda bir yayımlanır • Üyelere ücretsiz olarak gönderilir

Sayı 64 • Ekim – Kasım – Aralık - 2018

23. Tirokurs Yapıldı

TEMED Tiroid Çalışma Grubu yıllık etkinliklerinden olan ve Türkiye çapında değişik bölgelerimizde yapılan 'Pratik Tiroidoloji' kurslarının yirmiüçüncüsü TİROKURS-23, 20 Ekim 2018 tarihinde, Pamukkale Üniversitesi Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, Öğretim Üyelerinin değerli katkıları ve Merck® Türkiye'nin, koşulsuz desteği ile Denizli, Anemon Otel'de yapılmıştır.

Aile hekimleri, iç hastalıkları, Genel Cerrahi, Nükleer Tıp uzmanları ve araştırma görevlilerinden oluşan 123 hekimin katılımı ile gerçekleşen kurs başarı ile tamamlanmıştır.

Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.



6. EndoBridge® Gerçekleştirildi

Altıncı EndoBridge® yıllık toplantısı 25 - 28 Ekim 2018 tarihlerinde Amerikan Endokrin Derneği, Avrupa Endokrinoloji Derneği ve Türkiye Endokrinoloji ve Metabolizma Derneği ev sahipliğinde Antalya'da gerçekleştirildi.

Endokrinoloji ve Metabolizma hastalıkları alanında kapsamlı bir güncelleme sunan 3 günlük programda 24 konferans, 16 interaktif vaka tartışması oturumu ve posterli vaka sunumları yer aldı. EndoBridge 2018 Türkçe, Rusça ve Arapça eş zamanlı çeviri ile İngilizce olarak gerçekleştirildi ve Avrupa Akreditasyon Konseyi tarafından kredilendirildi. Toplantı 41 ülkeden 578 delege ve 90'ın üzerinde vaka sunumu ile bu yıl en yüksek uluslararası katılımcı ve bildiri sayısına ulaştı. EndoBridge 2018'de katılımcılar her yıl olduğu gibi dünyada endokrinoloji alanında en önde gelen isimler ile bir araya gelme, tecrübe ve deneyimlerini paylaşma fırsatı elde etti.

Yedinci EndoBridge® yıllık toplantısı Derneğimiz, Amerikan Endokrin Derneği ve Avrupa Endokrinoloji Derneği işbirliği ile 24 - 27 Ekim 2019 tarihleri arasında Antalya'da düzenlenecek.



14. Hipofiz Sempozyumu

14. Hipofiz Sempozyumu, Hacettepe Üniversitesi Tıp Fakültesi, Endokrinoloji ve Metabolizma Bilim Dalı ile Derneğimiz tarafından düzenlenen "14. Hipofiz Sempozyumu" Ankara Swiss Otel'de, 2-3 Kasım 2018 tarihlerinde yapıldı.

Yaklaşık 300 meslektaşımızla başarılı bir şekilde gerçekleştirilen sempozyumda endokrinoloji, beyin cerrahisi, radyasyon onkolojisi, radyoloji ve patoloji gibi farklı bilim dallarından toplam 34 öğretim üyesi görev aldı.

Bu sempozyumda 13 konferans eşliğinde hipofiz hastalıkları derinlemesine irdelendi, bu konudaki yenilikler aktarıldı ve interaktif tartışmalar gerçekleştirildi. Çok ilgi çeken klinikopatolojik konferans bölümünde ise farklı merkezlerde takip edilen dört ilginç ve zor hipofiz olgusu, dört genç endokrinolog tarafından takdim edildi ve multidisipliner konsey tarafından olgular ayrıntılı olarak tartışıldı. Geleneksel hale gelen ve bilimsel olarak çok doyurucu geçen bu sempozyumların onbeşincisi 2019 Kasım ayında Ankara Tıp Fakültesi başkanlığında düzenlenecektir.

Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.



3. Mezuniyet Sonrası Eğitim Kursu (Endokurs) Tamamlandı

8-11 Kasım 2018 tarihlerinde Hilton Dalaman Otel'de düzenlenmiş olan 3 Mezuniyet Sonrası Eğitim Kursu (ENDOKURS)'muz endokrinoloji araştırma görevlileri, aile hekimleri ve iç hastalıkları uzmanlarından oluşan 139 hekimin katılımı ile başarı bir şekilde tamamlanmıştır.

Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.



Etkinliklerimiz

- 14 Kasım Dünya Diyabet Günü kapsamında ülkemizin birçok yerinde etkinlikler gerçekleştirilmiştir.
- Malatya Eğitim ve Araştırma Hastanesi Endokrin kliniği olarak: 13 Kasım 2018'de Malatya Huzurevi'lerinde kan şekeri değerlendirilmesi ve 14-15 Kasım 2018'de Aile hekimlerine diyabet ve obezite konulu toplantı yapılmıştır.
- Şanlıurfa Mehmet Akif İnan Eğitim ve Araştırma Hastanesinde konferans salonunda Dünya Diyabet Günü etkinliği yapılmıştır.
- Namık Kemal Üniversitesi Tıp Fakültesi, Eğitim ve Araştırma Hastanesi, Konferans salonunda 20 Kasım tarihinde sağlık profesyonellerine yönelik "Diyabet Farkındalık Sempozyumu-2, Diyabetin Kronik Komplikasyonları" adlı sempozyum gerçekleştirilmiştir.
- Eskişehir Osmangazi Üniversitesi Tıp Fakültesi Endokrinoloji ve Metab. BD Necla Özdemir Konferans Salonunda 14 Kasım Dünya Diyabet Günü nedeniyle "Diyabetle Barışık Yaşamak" konulu Halkı Bilgilendirme Toplantısı gerçekleştirilmiştir.
- Şişli Hamidye Etfal Eğitim ve Araştırma Hastanesinde 14 Kasım 2018 tarihinde "Diyabet ve Aile" konulu eğitim programı gerçekleştirilmiştir.
- Hacettepe Üniversitesi'nde 14 Kasım 2018 tarihinde Hasta Günü; 17 Kasım 2018 tarihinde Bilimsel Toplantı gerçekleştirilmiştir.
- "Özel Ankara Endomer Endokrinoloji Merkezi", Çocuk Endokrinolojisi Uzmanı Doç.Dr. Ergun Çetinkaya önderliğinde takip ettikleri Tip 1 Diyabetli hastalar ve aileleriyle birlikte 14 Kasım Diyabetliler Günü etkinliği çerçevesinde tertip ettikleri turla Doğu ekspresi ile Kars'a gittiler. Erişkin Endokrinoloji Uzmanı Prof. Dr. Tümay Sözen'in de eşlik ettiği bu gezide hastalarımız ve aileleri hem keyifli zaman geçirdiler hem de hastalıklarıyla ilgili tartışmak ve yeni bilgiler almak şansına sahip oldular.

III. Zonguldak Endokrin Günleri Gerçekleştirildi

Zonguldak Bülent Ecevit Üniversitesi Tıp Fakültesi İç Hastalıkları Anabilim Dalı, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı ile Genel Cerrahi Anabilim Dalı öncülüğünde "III. Zonguldak Endokrin Günleri Uluslararası ve Ulusal katılımlı Güncel Yaklaşım Sempozyumu" 30 Kasım 2018 Cuma ve 1 Aralık 2018 Cumartesi günlerinde Sezai Karakoç Kültür Merkezinde gerçekleştirildi.

Uluslararası ve ulusal katılımcılarla, üst düzeyde bir bilimsellikte, başarılı bir şekilde gerçekleştirilen sempozyuma, Zonguldak, Bartın, Karabük, Kocaeli, Ankara, İstanbul, İzmir, Konya, Aydın, Gaziantep, Tekirdağ, Edirne, Kütahya, Van ve Giresun illerimiz ile İtalya Roma'dan, alanında önemli akademik çalışmalar yapmış, sağlık yönünden ülkemiz tıbbına gönüllerini veren ve sağlık hizmetine önemli katkıları bulunan, birçok bilim dalından akademisyenler, uzmanlar, aile sağlığı hekimleri ile Tıp Fakültesi öğrencilerinden oluşan 315 kişi katıldı.

Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.



13. Endokrin Aciller Kursu

“Endokrin Aciller Kursu 08 Aralık 2018 tarihinde Radisson Blu Hotel, Kayseri'de yapıldı.”

8. Türkiye Tiroid Hastalıkları Kongresi Ankara'da gerçekleşti.

8. Türkiye Tiroid Hastalıkları Kongresi, 14-16 Aralık 2018 tarihinde Ankara'da Green Park Hotel'de gerçekleşti. Kongremizin öncesinde Prof. Dr. Murat Faik Erdoğan ve Doç. Dr. Alptekin Gürsoy tarafından verilen Endokrinologlar için İleri Tiroid ve Boyun Ultrasonografisi Kursu'na 67 meslektaşımız, Başkanlığını Prof. Dr. Ersin Akarsu, Bilimsel Sekreteryası'nı Prof. Dr. Mehtap Çakır'ın yürüttüğü kongremize 347 meslektaşımız katıldı. Kongrede açılış konuşmasını Prof. Dr. Gürbüz Erdoğan Türkiye'de tiroidolojinin nereden nereye geldiğine dair verdiği aydınlatıcı, ayakta alkışlanan konferansı ile yaptı. Bunun yanında metabolik sendrom, tip 2 diyabet ve tiroid glandı, Graves hastalığında remisyonu ve oftalmopatiyi öngörmek mümkün müdür?, tiroid hastalıklarında somatostatin analoglarının yeri başlıklı konferanslar verildi. Misafir konuşmacımız Danimarka Odense Üniversite Hastanesi'nden Kristian Hillert Winther "Selenium and the thyroid" adlı bir konferans verdi. Kongre boyunca; olgular eşliğinde tiroidolojide problemleri durumlar, olgularla gebelikte tiroid hastalıkları yönetimi, diferansiye tiroid kanseri tanı ve tedavisinde değişen paradigmlar, tiroidolojide yönetimi güç klinik ve halk sağlığı problemleri, RET-25.yıl panel başlıkları altında yapılan bildirilerde, tiroid hastalıkları tartışıldı. 67 poster ve 10 sözlü bildiri yapılan kongremizde 3 sözlü ve 3 poster bildiriyi ödüller verildi.



Kongre, Kurslar ve Sempozyumlar



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4 TÜRKİYE ENDOKRİNOLOJİ VE
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8. Adrenal Gonad ve Nöroendokrin Tümörler Sempozyumu
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- 9-10 Mart 2019
17. Hipertansiyon ve 9. Lipid Metabolizması Bozuklukları Eğitim Sempozyumu
Hitit Üniversitesi- Çorum
- 13-16 Mart 2019
Endokrinolojide Fark Yaratacak Akademisyenler
İstanbul
- 23-26 Mart 2019
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IOF-WCO-IOF –ESCEO
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- 24-28 Nisan 2019
28th AACE Annual Scientific & Clinical Congress
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- 27 Nisan - 01 Mayıs 2019
41. Türkiye Endokrinoloji ve Metabolizma Hastalıkları Kongresi
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79th Scientific ADA
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42nd Annual Meeting of ETA
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- 16-20 Eylül 2019
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- 24-27 Ekim 2019
Endobridge 2019
Antalya
- 30 Ekim - 3 Kasım 2019
89th Annual Meeting of the ATA
Chicago, IL
- 2-6 Aralık 2019
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Üyelerimizden Literatür Seçmeleri

RENAL COMPLICATIONS OF LIPODYSTROPHY: A CLOSER
LOOK AT THE NATURAL HISTORY OF KIDNEY DISEASE.

Akinci B¹, Unlu SM², Celik A³, Simsir IY⁴, Sen S⁵, Nur B⁶, Keskin FE⁷, Ozgen Saydam B¹, Kutbay Ozdemir N⁸, Sarer Yurekli B⁴, Ergur BU⁹, Sonmez M¹⁰, Atik T¹¹, Arslan A¹², Demir T¹, Altay C¹², Tunc UA¹³, Arkan T¹⁴, Gen R¹⁵, Eren E¹⁶, Akinci G¹⁷, Yilmaz AA¹⁸, Bilen H¹⁹, Ozen S²⁰, Celtik A²¹, Savas Erdeve S¹⁸, Cetinkaya S¹⁸, Onay H¹¹, Sarioglu S², Oral EA²².

Clin Endocrinol (Oxf). 2018 Jul;89(1):65-75. doi: 10.1111/cen.13732. Epub 2018 May 17.

Objectives: Lipodystrophy syndromes are a group of heterogeneous disorders characterized by adipose tissue loss. Proteinuria is a remarkable finding in previous reports.

Study Design: In this multicentre study, prospective follow-up data were collected from 103 subjects with non-HIV-associated lipodystrophy registered in the Turkish Lipodystrophy Study Group database to study renal complications in treatment naïve patients with lipodystrophy.

Methods: Main outcome measures included ascertainment of chronic kidney disease (CKD) by studying the level of proteinuria and the estimated glomerular filtration rate (eGFR). Kidney volume was measured. Percutaneous renal biopsies were performed in 9 patients.

Results: Seventeen of 37 patients with generalized and 29 of 66 patients with partial lipodystrophy had CKD characterized by proteinuria, of those 12 progressed to renal failure subsequently. The onset of renal complications was significantly earlier in patients with generalized lipodystrophy. Patients with CKD were older and more insulin resistant and had worse metabolic control. Increased kidney volume was associated with poor metabolic control and suppressed leptin levels. Renal biopsies revealed thickening of glomerular basal membranes, mesangial matrix abnormalities, podocyte injury, focal segmental sclerosis, ischaemic changes and tubular abnormalities at various levels. Lipid vacuoles were visualized in electron microscopy images.

Conclusions: CKD is conspicuously frequent in patients with lipodystrophy which has an early onset. Renal involvement appears multifactorial. While poorly controlled diabetes caused by severe insulin resistance may drive the disease in some cases, inherent underlying genetic defects may also lead to cell autonomous mechanisms contributory to the pathogenesis of kidney disease.

AN ASSESSMENT OF THE RELATIONSHIP BETWEEN
THYROID NODULE CHARACTERISTICS, INSULIN
RESISTANCE AND ARTERIAL STIFFNESS IN EUTHYROID
NODULAR GOITER.

Aydoğan Y¹, Altay M², Ünsal O³, Kaplanoğlu V⁴, Çağır Y⁵, Yıldız C⁶, Beyan E⁷, Ramadan SU⁸.

Endocrine. 2018 Nov;62(2):440-447. doi: 10.1007/s12020-018-1701-6. Epub 2018 Aug 6.

Objectives: Publications suggesting that thyroid nodule might be associated with insulin resistance and metabolic syndrome are quite interesting. There is a need for studies assessing the relationship between nodule presence and cardiovascular risk in individuals with non-functioning nodular goiter. The purpose of the present study is to reveal whether or not insulin resistance, nodule presence, and nodule stiffness affect arterial stiffness, which is a reliable and valid cardiovascular risk indicator, in individuals with euthyroid nodular goiter using the pulse wave analysis (PWA).

Materials and Methods: 50 patients with euthyroid nodular goiter and 50 healthy volunteers were included in the study. All participants were examined by B-mode thyroid ultrasound, and the participants in the nodular goiter group were also examined by strain elastography (SE). The strain index of nodules was calculated according to the Rago scoring. Also, fasting plasma glucose (FPG) and insulin levels were measured, and HOMA-IR. Arterial stiffness measurements of the participants were performed using a PWA device which employs a cuff-based oscillometric method from the brachial artery.

Results: PWV was found to be significantly higher in the euthyroid nodular goiter group ($p < 0.001$). PWV was found to be positively correlated with FPG and waist circumference. Fasting plasma glucose was found to be higher in the group with nodular goiter ($p = 0.03$). However, no difference was found between the groups in terms of HOMA-IR and insulin level. HOMA-IR was not correlated with thyroid volume, nodule volume, and nodule count. Also, HOMA-IR was not correlated with strain index value and PWA data.

Conclusion: We found that PWV was significantly higher in patients with euthyroid nodular goiter. This result suggests that these patients may be at risk for cardiovascular disease.

MYCOPHENOLATE PLUS METHYLPREDNISOLONE
VERSUS METHYLPREDNISOLONE ALONE IN ACTIVE,
MODERATE-TO-SEVERE GRAVES' ORBITOPATHY (MINGO):
A RANDOMISED, OBSERVER-MASKED, MULTICENTRE
TRIAL.

Kahaly GJ¹, Riedl M², König J³, Pitz S⁴, Ponto K⁴, Diana T², Kampmann E², Kolbe E², Eckstein A⁵, Moeller LC⁶, Führer D⁶, Salvi M⁷, Curro N⁸, Campi I⁷, Covelli D⁷, Leo M⁹, Marinò M⁹, Menconi F⁹, Marcocci C⁹, Bartalena L¹⁰, Perros P¹¹, Wiersinga WM¹²; European Group on Graves' Orbitopathy (EUGOGO).

Lancet Diabetes Endocrinol. 2018 Apr;6(4):287-298. doi: 10.1016/S2213-8587(18)30020-2. Epub 2018 Jan 31.

Background: European guidelines recommend intravenous methylprednisolone as first-line treatment for active and severe Graves' orbitopathy; however, it is common for patients to have no response or have relapse after discontinuation of treatment. We aimed to compare the efficacy and safety of add-on mycophenolate to methylprednisolone in comparison with methylprednisolone alone in patients with moderate-to-severe Graves' orbitopathy.

Methods: MINGO was an observer-masked, multicentre, block-randomised, centre-stratified trial done in two centres in Germany and two in Italy. Patients with active moderate-to-severe Graves' orbitopathy were randomly assigned to receive intravenous methylprednisolone (500 mg once per week for 6 weeks followed by 250 mg per week for 6 weeks) either alone or with mycophenolate (one 360 mg tablet twice per day for 24 weeks). The prespecified primary endpoints were rate of response (reduction of at least two parameters of a composite ophthalmic index [eyelid swelling, clinical activity score, proptosis, lid width, diplopia, and eye muscle motility] without deterioration in any other parameter) at 12 weeks and rate of relapse (a worsening of symptoms that occurred after a response) at 24 and 36 weeks. Rates of response at week 24 and sustained response at week 36 were added as post-hoc outcomes. Prespecified primary outcomes and post-hoc outcomes were assessed in the modified intention-to-treat population (defined as all patients assigned to treatment who received at least one infusion of methylprednisolone, when outcome data were available), and safety was assessed in all patients who received at least one dose of study drug. This trial is registered with the EU Clinical Trials Register, EUDRACT number 2008-002123-93.

Findings: 164 patients were enrolled and randomised between Nov 29, 2009, and July 31, 2015. 81 were randomly assigned to receive methylprednisolone alone and 83 to receive methylprednisolone with mycophenolate. In the intention-to-treat population at 12 weeks, responses were observed in 36 (49%) of 73 patients in the monotherapy group and 48 (63%) of 76 patients in the combination group, giving an odds ratio (OR) of 1.76 (95% CI 0.92-3.39, $p=0.089$). At week 24, 38 (53%) of 72 patients remaining in the monotherapy group and 53 (71%) of 75 patients remaining in the combination therapy group had responded to treatment (2.16, 1.09-4.25, $p=0.026$). At week 24, relapse occurred in four (11%) of 38 patients in the monotherapy group and four (8%) of 53 patients in the combination group (OR 0.71, 0.17-3.03, $p=0.72$). At week 36, relapse occurred in an additional three (8%) patients in the monotherapy group and two (4%) patients in the combination group (0.65, 0.12-3.44, $p=0.61$). At week 36, 31 (46%) of 68 patients in the monotherapy group and 49 (67%) of 73 patients in the combination group had a sustained response (OR 2.44, 1.23-4.82, $p=0.011$). 23 patients had 24 serious adverse events, with 11 events in ten patients in the combination group and 13 events in 13 patients in the monotherapy group. Mild and moderate (grade 1-2) drug-related adverse events occurred in 16 (20%) of 81 patients receiving monotherapy and 21 (25%) of 83 patients receiving combination therapy ($p=0.48$).

Interpretation: Although no significant difference was seen in the rate of response at 12 weeks or rate of relapse at 24 and 36 weeks, post-hoc analysis suggested that addition of mycophenolate to treatment with methylprednisolone improved rate of response to therapy by 24 weeks in patients with active and moderate-to-severe Graves' orbitopathy.

PREDICTIVE SCORE FOR THE DEVELOPMENT OR PROGRESSION OF GRAVES' ORBITOPATHY IN PATIENTS WITH NEWLY DIAGNOSED GRAVES' HYPERTHYROIDISM.

Wiersinga W¹, Žarković M², Bartalena L³, Donati S⁴, Perros P⁵, Okosieme O⁶, Morris D⁷, Fichter N⁸, Lareida J⁸, von Arx G⁸, Daumerie C⁹, Burlacu MC⁹, Kahaly G¹⁰, Pitz S¹¹, Beleslin B¹², Ćirić J¹², Ayvaz G¹³, Konuk O¹⁴, Törüner FB¹³, Salvi M¹⁵, Covelli D¹⁵, Curro N¹⁶, Hegedüs L¹⁷, Brix T¹⁷; EUGOGO (European Group on Graves' Orbitopathy).

Eur J Endocrinol. 2018 Jun;178(6):635-643. doi: 10.1530/EJE-18-0039. Epub 2018 Apr 12.

Objective: To construct a predictive score for the development or progression of Graves' orbitopathy (GO) in Graves' hyperthyroidism (GH).

Design: Prospective observational study in patients with newly diagnosed GH, treated with antithyroid drugs (ATD) for 18 months at ten participating centers from EUGOGO in 8 European countries.

Methods: 348 patients were included with untreated GH but without obvious GO. Mixed effects logistic regression was used to determine the best predictors. A predictive score (called PREDIGO) was constructed.

Results: GO occurred in 15% (mild in 13% and moderate to severe in 2%), predominantly at 6-12 months after start of ATD. Independent baseline determinants for the development of GO were clinical activity score (assigned 5 points if score > 0), TSH-binding inhibitory immunoglobulins (2 points if TBII 2-10 U/L, 5 points if TBII > 10 U/L), duration of hyperthyroid symptoms (1 point if 1-4 months, 3 points if > 4 months) and smoking (2 points if current smoker). Based on the odds ratio of each of these four determinants, a quantitative predictive score (called PREDIGO) was constructed ranging from 0 to 15 with higher scores denoting higher risk; positive and negative predictive values were 0.28 (95% CI 0.20-0.37) and 0.91 (95% CI 0.87-0.94) respectively.

Conclusions: In patients without GO at diagnosis, 15% will develop GO (13% mild, 2% moderate to severe) during subsequent treatment with ATD for 18 months. A predictive score called PREDIGO composed of four baseline determinants was better in predicting those patients who will not develop obvious GO than who will.

DOES IGF-1 PLAY A ROLE IN THE ETIOPATHOGENESIS OF NON-FUNCTIONING ADRENOCORTICAL ADENOMA?

Bahadır C¹, Ecemis G¹, Atmaca H^{2,3}.

J Endocrinol Invest. 2018 Nov;41(11):1317-1323. doi: 10.1007/s40618-018-0869-1. Epub 2018 Mar 14.

Purpose: The aim of this study was to investigate the possible association of insulin-like growth factor-1 (IGF-1) with the pathogenesis of non-functioning adrenocortical adenomas (NFAs).

Methods: This study included 50 female patients (mean age 54 years) with NFAs, 55 patients (mean age 48 years; 20 male, 35 female) with acromegaly and 38 female control subjects (mean age 58 years). Body mass index (BMI) and waist circumference (WC) of the subjects were recorded and blood samples for IGF-1 were taken. Insulin resistance was calculated using the homeostatic model assessment (HOMA) score. Since most of the acromegaly patients had been using medicine that could have effected insulin resistance, HOMA scores were calculated only in patients with NFAs and the controls. Computerized tomography or magnetic resonance imaging was taken of the acromegalics and controls to detect adrenal mass frequency.

Results: The mean age was similar among the groups. As expected, the serum IGF-1 levels were significantly higher in patients with acromegaly than in patients with NFAs and the controls ($p < 0.001$). Although BMI, WC, and serum IGF-1 levels were significantly higher ($p < 0.001$) in patients with NFAs, the HOMA scores were similar between patients with NFAs and control groups. Although none of the control subjects had adrenal masses, NFAs were detected in 14 (25%) out of 55 acromegalic patients.

Conclusions: Higher serum IGF-1 levels in patients with NFAs compared to the control group and an increased prevalence of NFAs in acromegaly patients compared to control subjects and the general population suggest an association of IGF-1 with the etiopathogenesis of NFA.

CIRCULATING INSULIN-LIKE PEPTIDE 5 LEVELS AND ITS ASSOCIATION WITH METABOLIC AND HORMONAL PARAMETERS IN WOMEN WITH POLYCYSTIC OVARY SYNDROME.

Bicer M¹, Alan M², Alarslan P³, Guler A⁴, Kocabas GU³, Imamoglu C⁵, Aksit M⁶, Bozkaya G⁷, Isil AM⁴, Baloglu A⁸, Aslanipour B⁹, Çalan M¹⁰.

J Endocrinol Invest. 2018 Jun 28. doi: 10.1007/s40618-018-0917-x. [Epub ahead of print]

Purpose: Insulin-like peptide 5 (INSL5) is a gut peptide hormone that is a member of relaxin/insulin superfamily. Growing evidence implicates the crucial role of the peptide in some metabolisms including food intake, glucose homeostasis and reproductive system. Polycystic ovary syndrome (PCOS) is involved in both reproductive and metabolic issues. The aim of the study was determination of circulating levels of INSL5 alteration in women with PCOS and evaluation of the relationship between INSL5 and hormonal-metabolic parameters as well as carotid intima media thickness (cIMT).

Methods: A total of 164 subjects were recruited in this cross-sectional study (82 women with PCOS and 82 age- and BMI-matched controls). Circulating INSL5 levels were assessed via ELISA method. High-resolution B-mode ultrasound was used to measure cIMT. The hormonal and metabolic parameters of the recruited subjects were determined.

Results: Circulating INSL5 levels were significantly elevated in women with PCOS compared to controls (27.63 ± 7.74 vs. 19.90 ± 5.85 ng/ml, $P < 0.001$). The mean values of INSL5 were significantly higher in overweight subjects compared to lean weight subjects in both groups. The women with PCOS having insulin resistance have increased INSL5 compared to those of PCOS subjects without insulin resistance. INSL5 is associated with insulin resistance, BMI, luteinizing hormone and free androgen index. Multivariate logistic regression analyses revealed that the odds ratio for having PCOS in the highest tertile of INSL5 was higher than in the lowest tertile.

Conclusions: PCOS subjects exhibited an elevation in circulating INSL5 levels along with a link between INSL5 level induction and metabolic-hormonal parameters.

HIGH-DENSITY LIPOPROTEIN (HDL) DYSFUNCTION AND THE FUTURE OF HDL.

Ertek S¹.

Curr Vasc Pharmacol. 2018;16(5):490-498. doi: 10.2174/1570161115666171116164612.

Although High Density Lipoprotein Cholesterol (HDL-C) levels are inversely proportional to cardiovascular risk in many studies, recent pharmacological interventional studies with HDL-C raising strategies did not show a benefit in terms of vascular events. The HDL particle is heterogenous with anti-atherogenic functions and non-vascular effects. Many factors affect HDL components and may either cause compositional changes, post-translational modifications of proteins, or alter lipids and other cargo molecules; generally these factors cause more than one of these changes, resulting in functional differences. Therefore, the role of lipoproteins change in different physical and disease conditions. Mainly, in proteome, Apolipoprotein A1 (Apo-A1), Myeloperoxidase (MPO), Paraoxonase (PON) are affected by inflammation or glycation-related factors; and especially esterification or unesterification of lipids, changes in phospholipid or unsaturated lipid content change the HDL function. Measuring the HDL-C level is probably not a good predictor of its cardiovascular benefits, and methods to evaluate HDL functions are required. In current medical practice, it is not simple and feasible to measure different functions of this lipoprotein, but near-future strategies may be developed. Meanwhile, as we learn more about HDL structure and the role of each component, we can develop therapeutic approaches to improve HDL function. Apo-A1-mimetics, reconstituted HDL, nanoparticles and microRNA therapies could be promising as anti-atherosclerotic therapies. They may even provide useful therapies for the treatment of some non-cardiovascular diseases.

EFFECTS OF RADIOACTIVE IODINE THERAPY ON OVARIAN RESERVE: A PROSPECTIVE PILOT STUDY.

Evranoş B¹, Faki S^{1,2}, Polat SB^{1,2}, Bestepe N¹, Ersoy R^{1,2}, Cakir B^{1,2}.

Thyroid. 2018 Sep 29. doi: 10.1089/thy.2018.0129. [Epub ahead of print]

Background: Thyroid carcinoma is the most common endocrine malignancy. Surgery is the standard therapeutic approach for patients with differentiated thyroid carcinoma (DTC), followed by radioiodine (RAI) therapy if indicated. For women with DTC, the effects of RAI therapy on gonadal and reproductive function are an important consideration. This study aimed to evaluate the effects of RAI therapy on ovarian function.

Methods: A total of 33 premenopausal women were enrolled in this study. Serum follicle-stimulating hormone (FSH), luteinizing hormone (LH), estradiol, and anti-Müllerian hormone (AMH) levels during the early follicular phase were measured before and 3, 6, and 12 months after RAI therapy. The Friedman and Wilcoxon tests were used to detect changes in FSH, AMH, LH, and estradiol levels induced by RAI therapy over time.

Results: The patients' ages ranged from 21 to 38 years, with a mean age of 31.15±4.83 years. The median follow-up was 19 months (range 4-26 months). The median AMH levels were 3.25 ng/mL (range 0.32-17.42 ng/mL), 1 ng/mL (range 0.01-3.93 ng/mL), 1.13 ng/mL (range 0.08-6.12 ng/mL), and 1.37 ng/mL (range 0.09-6.1 ng/mL) before and at 3, 6, and 12 months after RAI therapy, respectively. The median FSH levels were 6.6 mIU/mL (range 3.78-15.5 mIU/mL), 5.83 mIU/mL (range 4.19-35.36 mIU/mL), 7.71 mIU/mL (range 4.24-16.25 mIU/mL), and 7.04 mIU/mL (range 4.93-19.96 mIU/mL) before and at 3, 6, and 12 months after RAI therapy, respectively. The AMH levels were higher before than after RAI therapy (p=0.001). The AMH levels did not differ significantly between the three time points (p>0.05). The FSH, LH, and estradiol levels were similar before and after RAI therapy (p>0.05).

Conclusion: AMH is considered an important marker of ovarian reserve. Ovarian reserve decreased after RAI therapy. More attention may be needed when considering RAI therapy for patients with reduced ovarian reserve.

EFFECT OF SLEEVE GASTRECTOMY ON PLATELET COUNTS AND MEAN PLATELET VOLUMES.

Kutluturk F¹, Özsoy Z².

Obes Surg. 2018 Oct;28(10):3159-3164. doi: 10.1007/s11695-018-3287-8.

Background: Obesity is a chronic metabolic disorder associated with cardiovascular disease, characterized by a chronic proinflammatory and prothrombotic state. The size and hemostatic potential of circulating platelets (PLTs) differ, with larger PLTs containing more granules and producing greater amounts of vasoactive and prothrombotic factors. This study aimed to investigate the effect of laparoscopic sleeve gastrectomy (LSG) on PLT count and mean platelet volume (MPV) in morbidly obese patients.

Methods: Two hundred five patients (females, n=143; males, n=62) who attended monitoring visits in the period prior to LSG and for 6 months after surgery were included in this study. Routine physical examination findings and laboratory parameters recorded preoperatively were compared with the same parameters in the postoperative 6th month.

Results: The mean age of the patients was 37.36±10.93 years. The mean preoperative body mass index (BMI) of the patients was 47.65 kg/m², whereas the mean postoperative BMI at 6 months was 31.49 kg/m². Prior to LSG, the mean PLT count was 314.16±76.40×10⁹/L. At the postoperative 6th month, the mean PLT count was significantly reduced (263.17±65.67×10⁹/L, p<0.001). In the preoperative period, the MPV was 10.12±0.88 fL. In the postoperative period, it was significantly increased (10.41±1.23 fL, p>0.001). Both preoperatively and postoperatively, PLT counts were significantly higher in females than in males. After LSG, the MPV increased in both females and males.

Conclusions: The results demonstrated that PLT counts decreased and MPV levels increased significantly after LSG and that the decrease in PLT counts was independent of changes in BMI.

STIMULATED THYROGLOBULIN VALUES ABOVE 5.6 NG/ML BEFORE RADIOACTIVE IODINE ABLATION TREATMENT FOLLOWING LEVOTHYROXINE WITHDRAWAL IS ASSOCIATED WITH A 2.38-FOLD RISK OF RELAPSE IN TG-AB NEGATIVE SUBJECTS WITH DIFFERENTIATED THYROID CANCER.

Mousa U¹, Yikilmaz AS², Nar A³.

Clin Transl Oncol. 2017 Aug;19(8):1028-1034. doi: 10.1007/s12094-017-1640-3. Epub 2017 Mar 3.

Background: Serum thyroglobulin (Tg) is the key parameter used in the follow-up of subjects with differentiated thyroid cancer (DTC). Current guidelines advise its measurement to take place when Thyrotropin (TSH) levels are >30 µU/ml (stimulated Tg) and when TSH < 0.1 µU/ml (suppressed Tg). Although stimulated Tg levels <1 ng/ml have been shown to display excellent prognosis, relapses may occur despite low Tg levels. Recently, very low cut-off levels of stimulated Tg have been proposed for determining the recurrence risk in these subjects. In this study, we aimed to assess the association between ablative stimulated Tg obtained before radioactive iodine ablation therapy (RAI) (ASTg) and late stimulated Tg obtained 6-12 months after primary therapy (LSTg) in a group of subjects with DTC. We also aimed to establish a cut-off level of Tg for recurrence.

Methods: We retrospectively analyzed 393 subjects with low or intermediate risk DTC diagnosed at our institution between January 2000 and December 2010 with a mean follow-up period of 64.4 months (range 14-192 months). All stimulated Tg levels were performed following levothyroxine withdrawal in this study.

Results: Histopathological analysis indicated papillary carcinoma in 362 (92.1%) subjects and follicular carcinoma in 31 (7.9%) subjects. Three hundred and twenty-four (82.4%) of our cases were females, and 69 (17.6%) were males. Recurrence occurred in 82 (20.9%) of the subjects.

Relapse was significantly more frequently observed in subjects with ASTg ≥ 2 ng/ml; and LSTg ≥ 2 ng/ml. ($p = 0.004$ and $p < 0.001$, respectively). In subjects negative for thyroglobulin antibodies (Tg-ab), an ASTg value ≥ 5.6 ng/ml was established to increase the risk of recurrence by 2.38-fold ($p = 0.002$), whereas an LSTg ≥ 0.285 ng/ml increased the risk of relapse by 3.087-fold ($p < 0.001$).

Conclusion: As a result of this study, we determined that the optimum cut-off level for both ASTg and LSTg may be lower than those previously reported. Using such a lower cut-off may improve sensitivity for detecting relapse.

PERCUTANEOUS ETHANOL INJECTION FOR BENIGN CYSTIC AND MIXED THYROID NODULES.

Ozderya A, Aydin K, Gokkaya N, Temizkan S.

Endocr Pract. 2018 Jun;24(6):548-555. doi: 10.4158/EP-2018-0013. Epub 2018 Apr 6.

Objective: We aimed to determine the effect of percutaneous ethanol injection (PEI) on volume of cystic and mixed thyroid nodules, thyroid function tests (TFTs), antibody titers, and cytologic changes for 1 year.

Methods: Fifty-five nodules from 53 patients with cystic and mixed properties treated with PEI were included. Nodule volumes, TFTs, and thyroid autoantibodies were analyzed at baseline, 6 months, and 12 months. Fine-needle aspiration biopsy (FNAB) was performed to PEI-treated nodules in the 12th month. Thyroid nodules were classified into three groups by structural properties (purely cystic, predominantly cystic, predominantly solid).

Results: PEI caused a volume reduction of 80.7% at 6 months and 82.1% at 12 months, without any serious complications. PEI was repeated 1.4 ± 0.4 times with a mean total ethanol amount of 3.6 ± 3.1 mL. Volume reduction in the purely cystic nodules in the 6th and 12th months after PEI was greater than the volume reductions in predominantly cystic and predominantly solid nodules. We found that smaller nodules had greater volume reductions after PEI in the 12th month. During the study, patients remained euthyroid. Antithyroglobulin levels were decreased at 12 months. None of the FNAB results were compatible with a malignant or suspicious for malignancy cytology at the 12th month.

Conclusion: PEI is an effective means of treatment for benign cystic and mixed thyroid nodules, without any serious side effects. We can also assume that PEI is not a trigger for autoimmunity and malignancy development over the short term.

Abbreviations: anti-TG = anti-thyroglobulin; anti-TPO = anti-thyropoxidase; AUS = atypia of unknown significance; CV = coefficient of variation; FNAB = fine-needle aspiration biopsy; fT3 = free triiodothyronine; fT4 = free thyroxine; PEI = percutaneous ethanol injection; TFT = thyroid function test; TSH = thyroid-stimulating hormone; US = ultrasonography.

DOES THE ACR TI-RADS SCORING ALLOW US TO SAFELY AVOID UNNECESSARY THYROID BIOPSY? SINGLE CENTER ANALYSIS IN A LARGE COHORT.

Koseoglu Atilla FD¹, Ozgen Saydam B², Erarslan NA³, Diniz Unlu AG⁴, Yilmaz Yasar H⁵, Ozer M⁶, Akinci B⁷.

Endocrine. 2018 May 9. doi: 10.1007/s12020-018-1620-6. [Epub ahead of print]

Introduction: The American College of Radiology (ACR) has recently proposed a guideline that recommends clinicians to perform thyroid fine-needle aspiration biopsy (FNAB) on the basis of ultrasound features. In this study, we focused on nodules for which no biopsy is recommended by the ACR Thyroid Imaging, Reporting and Data System (TI-RADS) guideline.

Subjects and Methods: Two-thousand eight-hundred and forty-seven consecutive patients with thyroid nodules who underwent FNAB according to the 2009 American Thyroid Association (ATA) guideline were included. The nodules were re-classified according to the ACR TI-RADS guideline as benign (TR1), not suspicious (TR2), mildly suspicious (TR3), moderately suspicious (TR4) and highly suspicious (TR5). The TR3 category was stratified into two subcategories as regard to the nodule size (TR3; <25 mm and TR3; ≥ 25 mm).

Results: Two-hundred and thirty-three (8.2%) patients with non-diagnostic FNABs were excluded. When the TR2 and TR3; <25 mm categories were merged, FNAB was suggestive of thyroid cancer in 17 of 1382 patients (1.2%). FNAB revealed Bethesda IV-VI in 5 of 273 patients with the TR3; ≥ 25 mm category (1.8%), in 61 of 896 patients with the TR4 category (6.8%), and in 18 of 63 of patients with the TR5 category (28.6%). The ACR TI-RADS scoring was 98.8% (95% CI: 98 to 99.3) specific for identification of a benign nodule.

Conclusion: Our data suggest that ACR TI-RADS scoring is an applicable and potentially cost-effective approach to determine thyroid nodules to be biopsied, although a small proportion of thyroid cancers would be missed.

SPORTS-RELATED REPETITIVE TRAUMATIC BRAIN INJURY: A NOVEL CAUSE OF PITUITARY DYSFUNCTION.

Sezgin Caglar A¹, Tanriverdi F¹, Karaca Z¹, Unluhizarci K¹, Kelestimur F¹.

J Neurotrauma. 2018 Nov 20. doi: 10.1089/neu.2018.5751. [Epub ahead of print]

Traumatic brain injury (TBI) is one of the major causes of disability and death, particularly in the young population. Recent clinical studies have demonstrated that TBI-induced pituitary dysfunction occurs more frequently than previously estimated, and this may contribute to delayed diagnosis and treatment of hormonal abnormalities. Today, the popularity of combative sports increases, and athletes who deal with these sports have risks of developing hypopituitarism attributed to repetitive TBIs. Pathogenesis and molecular mechanisms are not completely understood yet. Current studies suggest that athletes who had retired, especially from combative sports, should be screened for hypopituitarism. In this review, we aim to increase the awareness of medical communities, athletes, coaches, and athletic trainers about this issue by sharing the current studies regarding the pituitary dysfunction attributed to repetitive TBI associated with sports.

DIABETES MELLITUS AND INSULIN RESISTANCE IN MOTHERS, FATHERS, SISTERS, AND BROTHERS OF WOMEN WITH POLYCYSTIC OVARY SYNDROME: A SYSTEMATIC REVIEW AND META-ANALYSIS.Yilmaz B¹, Vellanki P², Ata B³, Yıldız B⁴.*Fertil Steril. 2018 Aug;110(3):523-533.e14. doi: 10.1016/j.fertnstert.2018.04.024. Epub 2018 Jun 28.***Objective(s):** To analyze whether first-degree relatives (FDR) of patients with polycystic ovary syndrome (PCOS) have an increased risk of insulin resistance and glucose intolerance.**Design:** Systematic review and meta-analysis.**Setting:** None.**Patient(s):** Parents and siblings of women with and without PCOS.**Intervention(s):** Search of PubMed database from 1960 to September 2017 with cross-checking of references of relevant articles in English.**Main Outcome Measure(s):** Prevalence of type 2 diabetes mellitus (T2DM) and impaired glucose tolerance, and levels of fasting insulin, 2-hour insulin levels, and homeostatic model assessment insulin resistance (HOMA IR).**Result(s):** Our search retrieved 4,796 articles of which 19 were included. The prevalence of T2DM was significantly increased in mothers and fathers of PCOS probands (rate ratio [RR] 2.43; 95% confidence interval [CI], 1.58-3.75, and RR 2.27; 95% CI, 1.25-4.12). Moreover, the fasting insulin (in mothers, fathers, and sisters) and HOMA IR (in mothers, fathers, and sisters) levels were statistically significantly higher in parents and siblings of PCOS patients. The sisters (RR 1.34; 95% CI, 0.59-3.03) and brothers (RR 1.51; 95% CI, 0.63-3.62) had a higher prevalence of T2DM than the control subjects, but the difference was not statistically significant.**Conclusion(s):** Our meta-analysis provides quantitative evidence demonstrating clustering of T2DM and insulin resistance in the parents and siblings of PCOS probands.**ACROMEGALY IS ASSOCIATED WITH HIGH FIBROBLAST GROWTH FACTOR-21 LEVELS.**Yurekli B¹, Kutbay N², Aksit M³, Suner A⁴, Simsir IY², Seckiner S⁵, Kocabas GU⁶, Bozkaya G³, Saygili F².*J Endocrinol Invest. 2018 May 12. doi: 10.1007/s40618-018-0885-1. [Epub ahead of print]***Purpose:** Fibroblast growth factor-21 (FGF-21) is a member of fibroblast growth factor family. Both growth hormone (GH) and FGF-21 take place in the regulation of glucose and lipid metabolism. We aimed to investigate FGF-21 levels in acromegaly which is characterized by excess GH levels and is associated with comorbidities and altered body composition.**Methods:** We studied 43 subjects (21 females and 22 males, mean age of 50.0±12.8) with acromegaly. The control group consisted of 40 gender- and age-matched subjects (25 females and 15 males, mean age of 48.8±8.8). Acromegaly patients were classified into two groups; active acromegaly (AA; n=26) and controlled acromegaly (CA; n=17). Metabolic, anthropometric and laboratory values of subjects were recorded. FGF-21 level was measured by ELISA assay.**Results:** Median FGF-21 levels were significantly higher in acromegaly group compared to control group (85.5 vs. 59.0 pg/mL, p=0.02, respectively). In the multiple regression model, FPG, A1c, HOMA-IR, glucose intolerance, BMI, visceral fat, hs-CRP, presence of hypertension, dyslipidemia and acromegaly were included as independent variables to explain variability of plasma FGF-21 levels in whole study group. The presence of acromegaly was the only determinant of increased FGF-21 levels in the whole study group (β coefficient=0.253, p=0.006).**Conclusion:** FGF-21 levels were increased significantly in acromegaly group. Increased FGF-21 levels were significantly and independently associated with the state of acromegaly. Acromegaly may also be a FGF-21 resistance state independent from insulin resistance, glucose intolerance, obesity, hypertension and dyslipidemia.

KİTAP BÖLÜMÜ

Dr. Barış Akıncı

Lipodystrophy Syndromes: Presentation and Treatment

Editors. De Groot LJ, Chrousos G, Dungan K, et al. Endotext (Internet).

South Dartmouth (MA)

YENİ ÜYELERİMİZ

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