

Üç ayda bir çevrimiçi yayınlanır.

Sayı 83 • Temmuz – Ağustos – Eylül • 2023

KEMİK ENDOKRİNOLOJİSİ, OSTEOPOROZ VE METABOLİK KEMİK HASTALIKLARI SEMPOZYUMU TAMAMLANDI

2. Kemik Endokrinolojisi, Osteoporoz ve Metabolik Kemik Hastalıkları Sempozyumu 9 Eylül 2023 tarihinde, Kocaeli'nde, 98 yüz yüze, 110 çevrimiçi olmak üzere toplam 208 meslektaşımızın katılımı ile gerçekleştirilmiştir. Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.









6. Hipofiz Hastalıkları Sempozyumu "Hiperprolaktinemi" 30 Eylül 2023 tarihinde, Ondokuz Mayıs Üniversitesi Atatürk Kongre ve Kültür Merkezi, Samsun'da, 90 yüz yüze, 150 çevrimiçi olmak üzere toplam 240 meslektaşımızın katılımı ile gerçekleştirilmiştir. Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.







6. HIPOF

ASTALIKIAR







HIPER

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ERKEN KARİYER GRUBU ENDOKRİN KARİYER TOPLANTILARIMIZ...













Duyuru

Değerli Üyelerimiz,

Bildiğiniz üzere Bilimsel Çalışma Grubu Başkanları ve Erken Kariyer Grubu Başkanı için yeni dönemde görev yapacak başkanlar, her grup için sadece bir aday gösterilmesi nedeniyle seçime gerek duyulmaksızın belirlenmiş, 24.07.2023 tarihinde ilan edilmiş ve görev süreleri 07.08.2023 tarihinde başlamıştır.

Seçilen Bilimsel Çalışma Grubu ve Erken Kariyer Grubu Başkanları, TEMD, Bilimsel Çalışma Grubu ve Erken Kariyer Grubu Yönergeleri gereğince birlikte çalışacakları Başkan Yardımcılarını belirleyerek Yönetim Kurulumuza bildirmişlerdir.

Bu doğrultuda Bilimsel Çalışma Grupları ve Erken Kariyer Grubu Başkan ve Başkan Yardımcıları aşağıdaki şekilde oluşmuştur. Bilgilerinize sunulur.

Saygılarımızla

TEMD Yönetim Kurulu

ADRENAL VE GONADAL HASTALIKLAR BİLİMSEL ÇALIŞMA GRUBU

Başkan: Prof. Dr. Engin Güney Başkan Yardımcıları: Doç. Dr. Alev Selek-Doç. Dr. Emre Sedar Saygılı

DiyABET BILIMSEL ÇALIŞMA GRUBU Başkan: Prof. Dr. Canan Ersoy

Başkan Yardımcıları: Prof. Dr. Didem Özdemir-Prof. Dr. Soner Cander-Doc. Dr. Gülşah Yenidünya Yalın

HİPOFİZ BİLİMSEL ÇALIŞMA GRUBU

Başkan: Prof. Dr. Züleyha Karaca Başkan Yardımcıları: Doç. Dr. Hande Mefkure Özkaya-Doç. Dr. Muhammed Kızılgül

OBEZITE, DISLIPIDEMI, HIPERTANSIYON BILIMSEL ÇALIŞMA GRUBU

Başkan: Prof. Dr. Alper Sönmez Başkan Yardımcıları: Prof. Dr. Sinem Kıyıcı-Prof. Dr. Tevfik Sabuncu-Doç. Dr. Cem Haymana

OSTEOPOROZ VE DİĞER METABOLİK KEMİK HASTALIKLARI BİLİMSEL ÇALIŞMA GRUBU

Başkan: Prof. Dr. Özen Öz Gül Başkan Yardımcıları: Prof. Dr. Göknur Yorulmaz-Doç. Dr. Ömercan Topaloğlu

NADİR GÖRÜLEN METABOLİZMA HASTALIKLARI BİLİMSEL ÇALIŞMA GRUBU

Başkan: Prof. Dr. Özgür Demir Başkan Yardımcıları: Doç. Dr. Mehmet Muhittin Yalçın-Doç. Dr. Özlem Turhan İyidir

NÖROENDOKRİN TÜMÖRLER BİLİMSEL ÇALIŞMA GRUBU

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TIBBİ BESLENME VE EGZERSİZ METBOLİZMASI BİLİMSEL ÇALIŞMA GRUBU

Başkan: Prof. Dr. Murat Yılmaz Başkan Yardımcıları: Prof. Dr. Ayşe Nur İzol Torun-Prof. Dr. Meral Mert

TİROİD BİLİMSEL ÇALIŞMA GRUBU

Başkan: Prof. Dr. Mustafa Şahin Başkan Yardımcıları: Prof. Dr. Hülya Gözü-Prof. Dr. Tevfik Demir

ERKEN KARİYER ENDOKRİNOLOGLAR GRUBU

Başkan: Doç. Dr. Adnan Batman Başkan Yardımcıları: Doç. Dr. Sema Hepşen-Uzm. Dr. Tolga Akkan Uzm. Dr. Sedat Can Güney-Uzm. Dr. Filiz Mercantepe

ENDOCRINE NEWS Temmuz 2023 Sayısında Türkiye'ye Geniş Yer Ayırdı!



Endokrin Akademi

BAŞKANIN MESAJI

Değerli meslektaşlarımız,

Uzmanlık derneklerinin öncelikli amaçlarından biri mezuniyet sonrası eğitim programları oluşturmaktır. Mezuniyet sonrası sürekli eğitim programları hekimlerin bilgi ve becerilerinin gelişmesine, güncellenmesine, çağdaş, donanımlı ve üretken bilim insanlarının yetişmesine katkıda bulunur.

Türkiye Endokrinoloji ve Metabolizma Derneği (TEMD) yüz yüze gerçekleştirdiği ulusal ve bölgesel eğitim toplantılarının yanı sıra bir süredir web tabanlı eğitim programı ENDOKRİN AKADEMİ ile de bu hedeflere ulaşmaya çalışmaktadır. Teknoloji ve iletişim araçlarının hızlı gelişimi ile birlikte özellikle COVID-19 pandemisi sürecinde web tabanlı eğitim toplantılarının önemi ortaya çıkmıştır.

Endokrin Akademi ile hekimler istedikleri bilgiye hızla ulaşabilmekte, yılın her günü, günün her saati eğitim alabilmekte ve bu eğitim sonucu kendilerini değerlendirme fırsatı bulmaktadırlar. TEMD. meslektaşlarımızın bu ihtiyaçlarını gidermek amacıyla kurduğu Endokrin Akademi yeni dönemde de güçlü bir şekilde eğitim programlarına devam edecektir. Ülkemizin endokrinoloji ve metabolizma alanındaki deneyimli ve uzman kadroları güncel gelişmeleri, önemli konuları ve pratik noktaları meslektaşlarına aktaracaklardır. Ayrıca bu eğitim ortamında akademik gelişim açısından önem taşıyan tıbbi istatistik, klinik araştırma tasarımı, tıbbi etik, tele tıp uygulamaları ve tıp hukuku gibi konulara da yer verilecektir. Endokrin Akademi içeriğinde canlı toplantılar, uzaktan çekimle kaydedilmiş eğitim modülleri, akademik gelişim modülleri, zor ve ilginç olguların tartışılacağı e-konseyler ve alanımızın önemli uluşlararaşı kongrelerinin özetlendiği toplantılar bulunacaktır. Bu içerikler zaman içerisinde sizlerden gelen geri bildirim ve ihtiyaçlar doğrultusunda geliştirilip güncellenecektir. Ayrıca belirlenmiş bazı modüller için değerlendirme testleri yapılacak, testleri yapıp bu modülleri başarı ile tamamlayan hekimlerimiz Türk Tabipleri Birliği tarafından kredilendirilecektir. Endokrin Akademi'nin veni döneminin tüm hekimlerimize yararlı olmasını umuyor, başarılar diliyoruz.





Prof. Dr. Mustafa Cesur TEMD Başkanı Endokrin Akademi Başkanı

Prof. Dr. İbrahim Şahin TEMD Araştırla Sekreteri Endokrin Akademi Genel Sekreteri



Prof. Dr. Melek Eda Ertöer TEMD Genel Sekreteri Endokrin Akademi Üye



Prof. Dr. Mine Adaş TEMD Yönetim Kurulu Üyesi Endokrin Akademi Üye



Prof. Dr. Alper Sönmez Endokrin Akademi Üye



Prof. Dr. Ayşegül Atmaca Endokrin Akademi Üye

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TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ



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Aspartam pek çok diyet yiyecek, içecek, sakız gibi tüketim maddesinde kullanılan bir tatlandıcıdır.

Günlük aspartam tüketimi, vücut ağırlığımızın her 1 kg'ı için 40 mg'ı geçmemelidir. Bahsedilen miktardan daha fazla kullanıldığında kanser ile ilişkili olabileceğine dair araştırmalar bulunmaktadır.

Özellikle tükettiğiniz paketli ürünlerin içeriğini kontrol etmeyi unutmayınız.













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TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ



6. Nadir Görülen Metabolizma Hastalıkları Sempozyumu 2-3 Aralık 2023, Wyndham Garden Hotel, Diyarbakır











17-21 Nisan 2024 Susesi Hotel, Antalya

www.temhk.org



Feniks Kongre Organizasyon

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Bilgilendirme

"BEŞERİ TIBBİ ÜRÜNLERİN KLİNİK ARAŞTIRMALARI HAKKINDA YÖNETMELİK" HAKKINDA BİLGİLENDİRME

Değerli Üyemiz,

"Beşeri Tıbbi Ürünlerin Klinik Araştırmaları Hakkında Yönetmelik" ile ilgili dernek avukatımızın bilgilendirme yazısı ve yönetmelik linki aşağıda bilgilerinize sunulmaktadır.

*Beşeri Tıbbi Ürünlerin Klinik Araştırmaları Hakkında Yönetmelik yayımlanmıştır. Yönetmelik amacı taraf olunan uluslararası anlaşmalar ile Avrupa Birliği standartları ve iyi klinik uygulamaları çerçevesinde, beşeri tıbbi ürünler ile yapılan klinik araştırmaların yürütülmesi ve gönüllülerin haklarının korunmasına dair usûl ve esaslar ile Klinik Araştırmalar Danışma Kurulu ve etik kurulların teşkili, görevleri, çalışma usûl ve esaslarını düzenlemektir. Yönetmelik detaylı incelemesi için ilgili link:

https://www.resmigazete.gov.tr/eskiler/2023/05/20230527-5.htm

Av. Ece Sindel Öge

"SAĞLIK HİZMETLERİNDE TANITIM VE BİLGİLENDİRME FAALİYETLERİ HAKKINDA YÖNETMELİK" HAKKINDA BİLGİLENDİRME Değerli Üyemiz,

Dernek Avukatımız Ece Sindel'den gelen "Sağlık Hizmetlerinde Tanıtım ve Bilgilendirme Faaliyetleri Hakkında Yönetmelik" ile ilgili dernek avukatımızın bilgilendirme yazısı ve yönetmelik linki aşağıda bilgilerinize sunulmaktadır.

*SAĞLIK HİZMETLERİNDE TANITIM VE BİLGİLENDİRME FAALİYETLERİ HAKKIN-DA YÖNETMELİK" önemli düzenlemeler getirmiştir.

İlgili Yönetmelik ile; sağlık hizmetlerinde tanıtım ve bilgilendirme faaliyetlerine ilişkin temel ilke ve ölçütlerin belirlenmesi, bu faaliyetlerin denetlenmesi ve uygulanacak yaptırımlara ilişkin usul ve esasların düzenlenmesi amaçlanmıştır.

İlgili düzenleme ile sağlık turizminde yer alan reklam tanıtım açıklığı da engellenmiş, standart bir tanıtım bilgilendirme kriterleri getirilmiştir. İlgili düzenleme;

1. Sağlık meslek mensuplarını,

- 2. sağlık hizmeti sunan gerçek ve özel hukuk tüzel kişilerine ait olup ilgili mevzuatı uyarınca Sağlık Bakanlığı tarafından verilen izin, uygunluk belgesi veya ruhsat ile faaliyet gösteren tüm sağlık kurum, kuruluş, müesseseleri ve
- 3. uluslararası sağlık turizmi aracı kuruluşları tarafından yapılan tanıtım ve bilgilendirme faaliyetleri ile sağlık hizmet sunumu alanında yetkisi, izni ya da ruhsatı bulunmayan kişi, kurum ve kuruluşlar tarafından yapılan tanıtım ve bilgilendirme faaliyetlerini kapsamaktadır.

Yönetmelik detayına ilgili linkten ulaşabilirsiniz.

https://www.resmigazete.gov.tr/eskiler/2023/07/20230729-29.htm

Av. Ece Sindel Öge

ULUSAL VE ULUSLARARASI BİLİMSEL KONGRE VE SEMPOZYUMLAR

- 2-6 Ekim 2023
 59th Annual Meeting–European Association for the Study of the Diabetes (EASD 2023)
 Hamburg, Germany
 https://www.easd.org/annual-meeting/easd-2023.
 html
- 14 Ekim 2023
 TİROKURS-28, Pratik Tiroidoloji Kursu Ankara Üniversitesi Morfoloji Binası, Ord. Prof.
 Dr. Abdulkadir Noyan Konferans Salonu, Ankara https://temd.org.tr/haberler/tirokurs-28-pratiktiroidoloji-kursu
- 19-22 Ekim 2023
 Endobridge 2023
 Cornelia Diamond Congress Center Antalya, Turkey
 https://www.endobridge.org/
- 23-27 Ekim 2023
 59. Ulusal Diyabet Metabolizma ve Beslenme Hastalıkları Kongresi Nirvana Cosmopolitan Hotel, Antalya https://www.diyabetkongresi.org/
- 26-29 Ekim 2023
 Mezuniyet Sonrası Eğitim Kursu ENDOKURS 7
 Crowne Plaza, Bursa
 https://www.temd.org.tr/kurslar/mezuniyet-sonrasiegitim-kursu--endokurs-7
- 23-27 Ekim 2023 32nd ESE Postgraduate Training Course in Clinical Endocrinology, Diabetes and Metabolism 2023-online

https://www.ese-hormones.org/events-deadlines/ eseevents/32nd-ese-postgraduate-course-inclinicalendocrinology-diabetes-and-metabolism/

- 2-3 Aralık 2023
 6. Nadir Görülen Metabolizma Hastalıkları Sempozyumu
 Wyndham Garden Hotel, Diyarbakır <u>https://temd.org.tr/haberler</u>
- 14-17 Aralık 2023
 10. Türkiye Tiroid Hastalıkları Kongresi Divan Otel, Ankara <u>https://temd.org.tr/haberler</u>
- 1-3 Mart 2024
 21st International Congress of Endocrinology (ICE 2024)
 Dubai, UAE
 https://icecongress.com/
- 11-14 Nisan 2024
 WCO-IOF-ESCEO, World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases United Kingdom Hilton London Metropole, London https://www.wco-iof-esceo.org/
- 17-21 Nisan 2024
 45. Türkiye Endokrinoloji ve Metabolizma Hastalıkları Kongresi Antalya https://www.temd.org.tr/
- 11-14 Mayıs 2024
 26th European Congress of Endocrinology ECE
 2024
 Stokholm, Sweden

https://www.ese-hormones.org/events-deadlines/ european-congress-of-endocrinology/ece-2024/

ÜYELERİMİZDEN LİTERATÜR SEÇMELERİ

Subfatin, Asprosin, Alamandine And Maresin-1 in Cerebral Ischemia, Intracranial And Subarachnoid Hemorrhages

S Albayrak, M A Aydin, K Ugur, O Hanbeyoglu, S Aydin, E Erol, A Kilinc, V Acar, I Sahin, S Aydin *Eur Rev Med Pharmacol Sci. 2023 May;27(10):4471-4480. doi: 10.26355/ eurrev 202305 32453. PMID: 37259728 DOI: 10.26355/eurrev 202305 32453*

Objective: Cerebrovascular diseases (CVDs) remain an important public health issue due to the increasing number of deaths worldwide. Changes in the synthesis and release of peptides in CVDs may play an important role in elucidating the physiopathology of the disease. Therefore, this study was to investigate the fate of maresin-1 (MaR-1), subfatin (SUB), asprosin (ASP), and alamandine (ALA) levels in patients with cerebral infarction (CI), intracranial hemorrhage (ICH), subarachnoid hemorrhage (SAH) evaluated within the scope of CVDs, and voluntary healthy controls.

Patients and methods: The study participants were divided into 4 groups: CI patients, ICH patients, SAH patients, and healthy volunteers. The diagnosis of CVDs was made based on the National Institutes of Health Stroke Scale (NIHSS), Intracerebral Hemorrhage Score (ICHS), Botterel-Hunt-Hess Scale (BHHS), and cranial computed tomography (CT). The levels of MaR-1 (ng/mL), SUB (ng/mL), ASP (ng/mL), and ALA (pg/mL) in the blood samples collected from the participants were studied using the ELISA method. Other parameters included in the study were obtained from the patient records of our hospital.

Results: The comparison of MaR-1 [(control 1.38 ± 0.14), SAH (0.98 ± 0.087), CI (0.67 ± 0.04), ICH (0.51 ± 0.03)], SUB [(control (13.2 ± 1.4), SAH (10.1 ± 1.2), CI (7.9 ± 0.8), ICH (5.8 ± 0.5)], and ALA [(control (67.2 ± 7.9), SAH (58.2 ± 4.3), CI (42.1 ± 3.7), and ICH (34.2 ±3.9)] values revealed a significant decrease compared to the control values. The comparison of the ASP values of SAH, CI, and ICH patients and control values (11.6 ± 1.2) showed significantly higher asprosin values in SAH (13.8 ± 1.1), CI (15.4 ± 1.2) and ICH (28.9 ± 2.8) patients. Similarly, systolic blood pressure (SBP), diastolic blood pressure (DBP), and glucose levels of CKD patients were also high.

Conclusions: Decreased MaR-1, SUB, ALA and increased ASP compared to the control values may play a role in the physiopathology of these diseases. MaR-1, SUB, ALA, and ASP differences between SAH, CI and ICH patients may also guide clinicians along with SBP, DBP and glucose values.

Hypothyroidism and Subclinical Hypothyroidism are Associated with Fatty Pancreas (Non-Alcoholic Fatty Pancreas Disease)

Akif Bayyigit, Yasemin Gokden, Suzan Onol, Fatma Z Ozek, Selin Saglam, Mine Adas

Diabetes Metab Res Rev. 2023 Sep 11;e3720. doi: 10.1002/dmrr.3720. Online ahead of print. PMID: 37691570 DOI: 10.1002/dmrr.3720

Objectives: Increasing visceral fat deposition with raised prevalence of obesity and metabolic syndrome is associated with many adverse conditions, especially cardiovascular diseases and diabetes. Although there are many studies that investigate hepatic steatosis in hypothyroidism and subclinical hypothyroidism, to the best of our knowledge, there is no study investigating its relationship with pancreatic steatosis. In the present study, the purpose was to investigate this relationship.

Methods: Physical and biochemical characteristics of 30 hypothyroid, 30 subclinical hypothyroid, and 30 euthyroid volunteers were recorded in this cross-sectional study. Liver and pancreatic steatosis were evaluated with ultrasonography.

Results: It was found that pancreatic steatosis was increased in hypothyroid and subclinical groups when compared to the control group, and hepatic steatosis was increased in the subclinical group when compared to the control group (steatosis; p = 0.002, p = 0.004, p = 0.001, p = 0.002, p = 0.002, p = 0.004). Pancreatic steatosis was positively correlated with age, hepatic steatosis, height, weight, BMI, waist circumference, hip circumference, hemoglobin, Insulin, alanine aminotransferase, Triglyceride, Creatinine, and gamma-glutamyltransferase and was negatively correlated with total cholesterol, high-density lipoproteins.

Conclusions: The prevalence of pancreatic steatosis was found to be increased in hypothyroidism and subclinical hypothyroidism when compared with the euthyroid control group.

The Effect of COVID-19 Process On Patients with Endocrinological Disease in A Pandemic Hospital: What Happened to The Others?

Evin Bozkur, Seda Turgut, Naim Pamuk, Hamide Piskinpasa, Duygu Metin, Ahmet Cem Dural, Nuri Alper Sahbaz, Omur Gunaldi, İlkay Cakir, Meral Mert, Sema Ciftci Dogansen

Arch Endocrinol Metab. 2023 Jan 18;67(1):45-54. doi: 10.20945/2359-3997000000525. Epub 2022 Oct 11. PMID: 36219200 PMCID: PMC9983793 DOI: 10.20945/2359-3997000000525

Objective: To evaluate the effects of the pandemic process on those with an endocrinological disease that will require close follow-up from the last visit before the pandemic.

Materials and methods: Patients of 3,903 with thyroid, calcium-bone metabolism, adrenal gland, pituitary diseases, and neuroendocrine tumor (NET) were retrospectively scanned. The remaining 855 (656 females and 199 males) patients with active disease or who still needed multidisciplinary approaches were included. The number of patients who continued the disease-related medical procedures and could complete these procedures on time in the pandemic period was determined, and medical deprivation rate (MDR) was calculated.

Results: The prepandemic period of our patients with thyroid disease (n = 594), calcium-bone metabolism disorder (n = 130), adrenal disease (n = 85), pituitary disease, and NET (n = 46) had MDRs of 85%, 56%, 81%, and 89%, respectively. For each subgroup of patients, the lowest MDR (67%) was in medullary thyroid carcinoma, the highest MDR (89%) was in differentiated thyroid carcinoma; the lowest MDR (6%) was in osteoporosis, the highest MDR (100%) was in the active Paget's disease; the lowest MDR (0%) was in primary adrenocortical insufficiency, the highest MDR (100%) was in hyperfunctional adrenal adenomas; the lowest MDR (81%) was in pituitary nonfunctional adenomas, and the highest MDR (100%) was in Cushing's disease, active prolactinoma, TSHoma, and NET, respectively.

Conclusion: This study showed that not only those who had COVID-19 but also those who had medical deprivation due to their current endocrinological disease were not to be underestimated during the pandemic period.

Relationship of HbA1c with Plasma Atherogenic Index and Non-HDL Cholesterol in Patients with Type 2 Diabetes Mellitus

Evin Bozkur, Ayse Esen, Ozlem Polat, Yildiz Okuturlar, Yasemin Sefika Akdeniz, Hamide Piskinpasa, Sema Dogansen, Ilkay Cakir, Meral Mert International Journal of Diabetes in Developing Countries volume 41, pages302– 306 (2021)Cite this article133 Accesses

Metricsdetails International Journal of Diabetes in Developing Countries Original Published: 10 November 2020

Purpose: Type 2 diabetes mellitus (T2DM) is a major risk factor for cardiovascular diseases (CVD). The plasma atherogenic index (PAI) has been suggested as a novel marker of atherosclerosis and coronary heart disease. The present study is conducted to investigate the relationship between glycated hemoglobin (HbA1c), non-HDL (high-density lipoprotein) cholesterol, and atherogenic index within patients with T2DM.

Materials and methods: A total of 4252 patients with T2DM were screened retrospectively and parameters including glucose, HbA1c, high-density lipoprotein (HDL) cholesterol, low-density lipoprotein (LDL) cholesterol, triglyceride, TSH, age, and gender were recorded. Non-HDL cholesterol and PAI were calculated as follows:

 $PAI = TG \div HDL \ cholesterol PAI = TG \div HDL \ cholesterol$

non-HDL=total cholesterol-HDL cholesterolnon-HDL=total cholesterol-HDL cholesterol

Results: Mean age was 57.06 ± 11.39 years. Mean HbA1c was $8.49 \pm 1.86\%$, PAI ratio was 4.12 ± 3.88 mg/dl, and mean non-HDL cholesterol was 156.50 ± 45.39 mg/dl. Non-HDL cholesterol (r = 0.427; p < 0.001), HbA1c (r = 0.163; p < 0.001), and glucose (r = 0.154; p < 0.001) showed a significantly positive correlation with PAI.

Conclusion: Although a respectable attention is drawn to non-HDL cholesterol based on the present data, PAI may have a stronger relationship with HbA1c in patients with T2DM. PAI may be beneficial in predicting patients who have high risk for CVD in clinical practice.

The Effects of Laparoscopic Sleeve Gastrectomy (LSG) on Obesity-Related Type 2 Diabetes Mellitus: a Prospective Observational Study from a Single Center

Özgen Çeler, Hatice Cansu Er, Seda Sancak, Elif Çırak, Ali Özdemir, Yaşar Sertbaş, Aziz Bora Karip, Nuriye Esen Bulut, Mehmet Timuçin Aydın, Hasan Altun, Kemal Memişoğlu

Obes Surg. 2023 Sep;33(9):2695-2701. doi: 10.1007/s11695-023-06707-y. Epub 2023 Jul 25. PMID: 37490195 DOI: 10.1007/s11695-023-06707-y

Purpose: The objective of the study is to evaluate the effects of laparoscopic sleeve gastrectomy (LSG) on midto long-term regulation of blood glucose in patients with obesity and type 2 diabetes mellitus (T2DM) MATERIALS AND METHODS : In this prospective and observational single-center study, a total of 234 patients with obesity and a diagnosis of T2DM who underwent LSG between 2015 and 2020 were evaluated. The demographics and laboratory data, consisting of body mass index (BMI), glycosylated hemoglobin (HbA1c%), and fasting plasma glucose (FPG) and total weight loss (TWL%), were compared preoperative and postoperative at 12th and 18th months and annual follow-up for seven consecutive years.

Results: The mean age of 234 patients (female(n)/male(n):191/43) included in the study was 44.69 ± 9.72 years, while the preoperative mean BMI, FPG, and HbA1c values were 47.9 ± 6.82 , 132.09 ± 42.84 mg/dl, and $7.02\pm1.35\%$ respectively. The mean rate of weight loss (TWL%), which was 34.7 in the 18 months, decreased to 23.15 in the 7th year. While the HbA1c % value was 7.02 ± 1.35 in the preoperative, it was found 5.71 ± 0.75 (p<0.001) and 6.30 \pm 1.77 (p<0.05) at the 18th month and 7th year after the operation, respectively. While the DM remission rate was 71.1% at the postoperative 18th month, it was 45.4% at the 7th year, despite the patients regaining weight in the follow-ups.

Conclusions: Our study revealed that LSG resulted in high remission rates that continued for 7 years after the surgery, although sustained improvement or remission of diabetes despite some weight regain after the first 18 months.

Interleukin 18, Soluble Cluster of Differentiation 40, Platelet Factor 4 Variant 1, and Neutrophil Gelatinase-Associated Lipocalin Can Be Used As Biomarkers to Aid Activity and Diagnosis in Ocular Behçet's Disease

Fatih Celik, Ebru Coteli, Fatih Cem Gul, Ercan Ozsoy, Sabiha Gungor Kobat, Zuhal Karaca Karagoz, Suna Aydin, Kader Ugur, Meltem Yardim, İbrahim Sahin, Mehmet Hanifi Yalcin1, Ramazan Fazil Akkoc, Suleyman Aydin2 Int Ophthalmol. 2022 Nov;42(11):3321-3331. doi: 10.1007/s10792-022-02331-4. Epub 2022 May 27. PMID: 35622217 DOI: 10.1007/s10792-022-02331-4

Purpose: The molecules human interleukin (IL-18), the soluble cluster of differentiation (sCD40), platelet factor 4 variant 1 (PF4V1), and neutrophil gelatinase-associated lipocalin (NGAL) are all markers of inflammation in biological systems and are linked to prognosis in several inflammatory diseases as well. Since there is no study in which the above-mentioned molecules

are studied together in ocular Behçet's disease (OBD), the aim of this study is to reveal whether these molecules are activity markers in active (OABD) and inactive (OIBD) disease.

Methods: 30 OABD and 30 OIBD and 30 healthy individuals were included in the study. IL-18, sCD40, PF4V1, and NGAL molecules were studied in blood samples by the ELISA method.

Results: When OABD and OIBD were compared to healthy individuals, the levels of IL-18, sCD40, PF4V1, and NGAL molecules were found to be statistically significant. These values were even more significantly higher in patients with OABD.

Conclusion: When ROC values of IL-18, sCD40, PF4V1, and NGAL are evaluated, it is clear that these four molecules can be used as biomarkers to aid activity and diagnosis in OBD.

Can a Novel Drug Dose Be Used for T3 Suppression Test?

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Purpose: This study aimed to investigate whether 25 μ g/ day dose of triiodothyronine (T3) can also suppress thyroid stimulating hormone (TSH) level, as well as the routine dose of 50-100 μ g/day in T3 suppression test, which is used to the distinguish between resistance to thyroid hormone (RTH) and TSH secreting pituitary adenoma.

Methods: In this prospective study, 26 patients with genetically proven RTH were randomly divided into two groups: Group 1 comprised 13 patients who were administered 50-100 μ g/day T3 for 3-9 days, while Group 2 also comprised 13 patients who were administered 25 μ g/day T3 for 7 days for T3 suppression test. The two groups' responses to T3 suppression tests were compared.

Results: The comparison of the mean percentage changes in TSH values by the T3 suppression tests showed no significant differences between the groups, and a $\geq 80\%$ decrease was detected in all patients. Nine patients in Group 1 and one patient in Group 2 reported that they had to use propranolol due to tachycardia developed during the test.

Conclusion: As higher doses of T3 can increase the risk of severe tachycardia during T3 suppression test, a low dose with 25 mcg/day for a week appears to be safer and more useful.

POU6F2 Mutation in Humans with Pubertal Failure Alters GnRH Transcript Expression

Hyun-Ju Cho, Fatih Gurbuz, Maria Stamou, Leman Damla Kotan, Stephen Matthew Farmer, Sule Can, Miranda Faith Tompkins, Jamala Mammadova, S Ayca Altincik, Cumali Gokce, Gonul Catli, Fuat Bugrul, Keenan Bartlett, Ihsan Turan, Ravikumar Balasubramanian, Bilgin Yuksel, Stephanie B Seminara, Susan Wray, A Kemal Topaloglu *Front Endocrinol (Lausanne). 2023 Aug 1;14:1203542. doi: 10.3389/*

fendo.2023.1203542. eCollection 2023. PMID: 37600690 PMCID: PMC10436210 DOI: 10.3389/fendo.2023.1203542

Idiopathic hypogonadotropic hypogonadism (IHH) is characterized by the absence of pubertal development and subsequent impaired fertility often due to gonadotropinreleasing hormone (GnRH) deficits. Exome sequencing of two independent cohorts of IHH patients identified 12 rare missense variants in POU6F2 in 15 patients. POU6F2 encodes two distinct isoforms. In the adult mouse, expression of both isoform1 and isoform2 was detected in the brain, pituitary, and gonads. However, only isoform1 was detected in mouse primary GnRH cells and three immortalized GnRH cell lines, two mouse and one human. To date, the function of isoform2 has been verified as a transcription factor, while the function of isoform1 has been unknown. In the present report, bioinformatics and cell assays on a human-derived GnRH cell line reveal a novel function for isoform1, demonstrating it can act as a transcriptional regulator, decreasing GNRH1 expression. In addition, the impact of the two most prevalent POU6F2 variants, identified in five IHH patients, that were located at/or close to the DNA-binding domain was examined. Notably, one of these mutations prevented the repression of GnRH transcripts by isoform1. Normally, GnRH transcription increases as GnRH cells mature as they near migrate into the brain. Augmentation earlier during development can disrupt normal GnRH cell migration, consistent with some POU6F2 variants contributing to the IHH pathogenesis.

Leukocyte Telomere Length and Neuregulin-4 Levels in Female Patients with Acromegaly: The Relationship Between Disease Activity and Body Fat Distribution

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The study aimed to examine leukocyte telomere length (LTL) and serum neuregulin-4 levels and their relationship with disease activity, co-morbidities and body fat distribution in female acromegaly patients. Forty female patients with acromegaly and thirty-nine age and body mass index (BMI) similar healthy female volunteers were included in the study. Patients were classified into two groups: active acromegaly (AA) and controlled acromegaly (CA). The quantitative polymerase chain reaction (PCR) method was used to study LTL, and T/S ratio < 1 was accepted as shortened telomere length. Neuregulin-4 was studied by ELISA. There was no difference in median LTL between acromegaly and the control group (p = 0.530). The percentage of T/S < 1 in patients with acromegaly (60.0%) was similar to that of the control group (43.6%) (p = 0.144). However, serum neuregulin-4 was significantly higher in patients with acromegaly than those in the control group (p = 0.037). There were no significant differences concerning LTL, percentage of T/S <1 and neuregulin-4 levels between active and controlled acromegaly groups (p > 0.05). Neuregulin-4 correlated positively with fasting glucose, triglyceride (TG), triglyceride/ glucose (TyG) index, and lean body mass in the acromegaly group. A negative correlation was observed between LTL and neuregulin-4 in the control group (p = 0.039). When the factors affecting neuregulin-4 were evaluated by multivariate linear regression analysis with an enter method, TG (β : 0.316, p = 0.025) was independently and positively associated with neuregulin-4. Our findings indicate that acromegaly is associated with unchanged LTL and high neuregulin-4 levels in female patients. However, the relationship between acromegaly, the aging process, and neuregulin-4 involves complex mechanisms, and further studies are needed.

Increase in Subcutaneous Adipose Tissue in the Frontal Scalp May Be Associated with Androgenetic Alopecia and Metabolic Syndrome

R Dayanan, A Bilen, S Çiftel, E Çiftel, F Mercantepe, T Demirci, G Tonkaz, B Yakar, E Önalan, I Çapoğlu, H Bilen *Eur Rev Med Pharmacol Sci. 2023 Jun;27(12):5748-5756. doi: 10.26355/ eurrev_202306_32813. PMID: 37401311 D0I: 10.26355/eurrev_202306_32813*

Objective: Recent studies have suggested that androgenetic alopecia (AGA) may be associated with other disorders, especially metabolic syndrome (MetS). This study aimed to determine whether a connection exists between MetS and AGA based on the thickness of the subcutaneous adipose tissue in the scalp.

Patients and methods: This cross-sectional study included 34 participants with AGA who had MetS and 33 participants with AGA who did not have MetS. The Hamilton-Norwood scale was employed for classifying AGA and MetS was identified using the US National Cholesterol Education Programme Adult Treatment Panel III (NCEP-ATP III criteria). The body mass index (BMI), blood pressure, and lipid profiles of the participants were assessed. Hepatosteatosis and the thickness of the subcutaneous adipose tissue in the scalp were examined using ultrasonography.

Results: Compared with the control group, the MetS+AGA group had higher BMI (p = 0.011), systolic blood pressure (p < 0.001), diastolic blood pressure (p < 0.001) and waist circumference (p = 0.003). Furthermore, the MetS+AGA group had a higher prevalence of dyslipidemia, hypertension (HT) and diabetes mellitus (DM) and higher rates of grade 6 alopecia than the control group (p = 0.019). Compared with the control group, those with MetS had thicker subcutaneous adipose tissue in the frontal scalp (p = 0.018).

Conclusions: The subcutaneous adipose tissue in the frontal scalp was thicker in individuals with AGA who had high Hamilton scores. The concomitance of AGA and MetS may be associated with a high increase in subcutaneous adipose tissue and less favorable metabolic parameters.

The Combination of Dopamine Agonist Treatment and Surgery May Be the Best Option in Challenging Prolactinoma Cases: A Single-Centre Experience

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Objective: To investigate the initial and long-term remission rates, factors related to remission, secondary treatments, and outcomes for patients with prolactinoma who underwent endoscopic transsphenoidal surgery (ETSS).

Methods: The medical files of the 45 prolactinoma patients who underwent ETSS between 2015 and 2022 were retrospectively reviewed. Relevant demographic and clinical data were obtained.

Results: Twenty-one (46.7%) patients were female. The median age of patients at ETSS was 35 (interquartile range, 22.5-50) years. The median clinical follow-up of patients was 28 (interquartile range 12-44) months. The initial surgical remission rate was 60%. Recurrence was detected in 7 patients (25.9%). Postoperative dopamine agonists were used in 25 patients, radiosurgery in 2, and second ETSS in 4 patients. After these secondary treatments, the long-term biochemical remission rate was 91.1%. The factors associated with failure in surgical remission are: male gender, older age, higher tumor size, advanced Knosp and Hardy stage, and elevated prolactin level at diagnosis. A prolactin level of <19 ng/mL in the first postoperative week predicted surgical remission with a sensitivity of 77.8% and a specificity of 70.6% in patients who received preoperative dopamine agonist treatment.

Does the Association of Hashimoto's Thyroiditis with Differentiated Thyroid Cancer Really Have a Protective Role?

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The study is an investigation of aggressive tumor features, prognosis, and disease-specific mortality rates of differentiated thyroid cancer (DTC) in the presence of concomitant Hashimoto's Thyroiditis (HT). The data of patients with DTC followed in our tertiary care center between 2000-2022 were analyzed. Variables such as patient age, gender, preoperative serum autoantibody levels, tumor characteristics, and treatment modalities were obtained from medical records. The diagnosis of HT was based either on the presence of a positive result in the pathological examination and/or on antibody positivity. A total of 637 patients [mean±SD age, 44.9 ± 13.5 years; 485 women [76.1%)] were included in the analysis. The overall prevalence of coexistent HT was 22.9% (n=146). The disease-specific mortality associated with DTC was 2.9%. DTC patients with HT compared to those without; have more positive lymphovascular invasion (p < 0.001), and lymph node metastases (p < 0.001). According to the Kaplan-Meier curves, disease-specific survival rates among DTC patients without HT were significantly higher than patients with HT (log-rank p=0.002). The disease-specific mortality rate was 4.79% in DTC patients with HT, it was 1.43% in those without HT. Hashimoto thyroiditis was not associated with a 10-year recurrence-free survival (p=0.059). Differentiated thyroid cancers with concomitant HT are associated with some aggressive tumor features (such as lymphovascular invasion and nodal metastasis) and lower survival. In staging systems based on tumor risk factors, it may be useful to evaluate the presence of concomitant HT as a prognostic factor.

Do Not Forget The Kidney in Graves' Disease

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Int Urol Nephrol. 2023 Oct;55(10):2667-2673. doi: 10.1007/s11255-023-03600-6. Epub 2023 Apr 24.PMID: 37093438 DOI: 10.1007/s11255-023-03600-6

Purpose: To investigate the prevalence of microalbuminuria and factors associated with microalbuminuria in Graves' Disease (GD).

Methods: This cross-sectional and single-center study included 99 patients with GD and 47 healthy controls (HC). Exclusion criteria such as active infection, uncontrolled diabetes, and chronic kidney disease were applied to the participants. The participants' clinical findings, comorbidities, drug use, laboratory tests, and thyroid antibody levels were recorded. Spot urine samples were collected and stored at -80 °C to analyze the presence of microalbuminuria.

Results: The prevalence of microalbuminuria in patients with GD was 12.1%. The median microalbumin/creatinine ratio in spot urine (UACR) in patients with GD (9.49 mg/g [5.09-18.10]) was higher than in the HC group (7.99 mg/g [3.48-12.88], p = 0.033). UACR was correlated with thyroid-stimulating hormone receptor antibody (TRAb), thyroid-stimulating hormone (TSH), and free triiodothyronine (FT3) levels (p = 0.020, p = 0.006, p = 0.009 respectively). In the regression analysis, only the relationship between TRAb level and UACR remained (p = 0.040).

Conclusion: This study demonstrates an increased prevalence of microalbuminuria in patients with GD. There was a significant correlation between microalbuminuria and TRAb level in patients with GD. This relationship suggests that one of the underlying mechanisms of microalbuminuria seen in patients with GD may be autoimmunity.

Keywords: Graves' disease; Microalbuminuria; Thyroidstimulating hormone receptor antibody.

The Importance of Hypophosphatemia in The Clinical Management of Primary Hyperparathyroidism

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Aim: The levels of serum phosphorus (P) are low or lownormal in primary hyperparathyroidism (PHPT), and there is an inverse relationship between the levels of parathormone (PTH) and P. However, when considering the diagnostic and surgical indication criteria of PHPT, serum P levels are generally ignored. The aim of this study was to retrospectively evaluate the association of serum P levels with the clinical outcomes of PHPT.

Materials and methods: A retrospective evaluation was made of the data of 424 consecutive patients (370 females, 54 males) with PHPT who presented at our centre.

Results: The mean age of the study population was 57 \pm 11.68 years. The mean P was 2.57 ± 0.53 mg/dl. Asymptomatic disease was determined in 199 (47%) patients. Male patients had significantly lower levels of P. Symptomatic patients and patients with renal stones, vitamin D <20 μ g/l, calcium level \geq 11.2 mg/ dl, 24 h urinary calcium >400 mg/day, or hypomagnesemia, were seen to have significantly lower levels of P (p < 0.05). Hypophosphatemia (hypoP) was found in 202 of 424 patients (47%), and these patients had a higher rate of symptomatic disease (63% to 44%, p < .0001). Of the 61 (88%) patients with moderate hypoP, 54 (88%) had at least one of the surgical criteria. A statistically significant increase in the incidence of hypoP was determined in symptomatic and male patients. In the patients with hypoP, serum PTH and urine calcium levels were found to be higher, and lumbar T-scores and serum vitamin D levels were lower. The patients with hypoP had higher rates of renal stones and osteoporosis (p < 0.05).

Conclusions: The current study results show that hypoP is associated with a higher risk of osteoporosis and renal stones in PHPT patients. Even if patients are asymptomatic, moderate hypoP may be associated with poor outcomes of PHPT. Therefore, moderate hypoP may be a new criterion for parathyroidectomy, regardless of hypercalcemia level.

Effects of COVID-19 Pandemic Lockdown on The Metabolic Control of Type 2 Diabetes Mellitus in Patients

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Objective: The effects of the COVID-19 pandemic on the control of diabetes mellitus in patients are largely unknown. In this study we aimed to analyze the impact of the pandemic and the ensuing lockdown on the management of type 2 diabetes mellitus.

Subjects and methods: A total of 7,321 patients with type 2 diabetes mellitus (4,501 from the pre-pandemic period, 2,820 from the post-pandemic period) were studied retrospectively.

Results: The admission of patients with diabetes melitus (DM) decreased significantly during the pandemic (4,501 prepandemic vs. 2,820 post-pandemic; p < 0.001). The mean age of patients was statistically lower (51.5 \pm 14.0 vs. 49.7 \pm 14.5 years; p < 0.001), and the mean glycated hemoglobin (A1c) level was significantly higher (7.9% \pm 2.4% vs. 7.3% \pm 1.7%; p <0.001) in the post-pandemic period than in the pre-pandemic. The female/male ratio was similar in both periods (59.9%/40.1% for pre-pandemic, 58.6%/41.4% for post-pandemic; p = 0.304). As calculated by month the pre-pandemic rate of women was higher only in January (53.1% vs. 60.6%, p = 0.02). Mean A1c levels were higher in the postpandemic period than in the same month of the previous year, excluding July and October (p = 0.001 for November, p < 0.001 for others). Postpandemic patients admitted to the outpatient clinic were significantly younger than prepandemic visits for July (p = 0.001), August (p < 0.001) and December (p < 0.001).

Conclusion: The lockdown had detrimental effects on blood sugar management in patients with DM. Hence, diet and exercise programs should be adapted to home conditions, and social and psychological support should be provided to patients with DM.

The Effects of Hypercortisolism on The Frequency and Magnitude of Sleep EEG Waves in Patients with Cushing Syndrome: A Spectral Analysis Study

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Objectives: Our aim was to investigate the effects of endogenous chronic hypercortisolism on sleep electroencephalogram (EEG) and differences between the adrenocorticotropic hormone (ACTH)-dependent and independent Cushing Syndrome (CS) patients through a sleep spectral analysis program.

Methods: A total of 32 patients diagnosed as having endogenous CS (12 ACTH-dependent and 20 ACTHindependent) and a control group comprising 16 healthy individuals were included in the study. Polysomnographic analysis was performed. Blood samples were collected at 08:00 AM for analysis of ACTH and basal cortisol, and at 00:00 AM for midnight cortisol levels. The frequency and power of the slow wave activity (SWA), theta, alpha, and beta waves of the first and last non-rapid eye movement (NREM) cycles were measured with a spectral analysis program.

Results: The CS patient group had higher SWA power, especially in the first NREM cycle. In the ACTH-dependent group, SWA maximum and mean power values were higher in the frontal channels in the first NREM, compared to the last NREM sleep stage (p < 0.05).

Conclusion: Cortisol has been found to be associated with SWA waves, making these waves higher in power, especially in the first NREM phase. This difference was much less pronounced in the final NREM sleep stage. The difference between the first and last NREM sleep stages with respect to the power of SWA in the frontal channel in the ACTH-dependent group suggests that not only cortisol but also high levels of ACTH affect the power of slow waves during sleep.

Keywords: Adrenocorticotropic hormone; Cortisol; Cushing syndrome; Sleep electroencephalogram; Spectral analysis.

Cardiovascular Evaluation and Endothelial Dysfunction in Cushing Syndrome Following Remission: a Prospective Study

A Hacioglu, S T Firat, A S Caglar, Z Karaca, N Kalay, S Taheri, F Tanriverdi, A Selcuklu, K Unluhizarci, F Kelestimur J Endocrinol Invest. 2023 Aug 30. doi: 10.1007/s40618-023-02183-4. Online ahead of print. PMID: 37648907 DOI: 10.1007/s40618-023-02183-4

Purpose: Cushing syndrome (CS) is a well-known risk factor for cardiovascular morbidities. We aimed to evaluate endothelial and cardiovascular functions, endothelial mediators and pro-inflammatory cytokines in patients with CS before and after remission.

Methods: Adult patients with newly diagnosed endogenous CS were included. Metabolic [body mass index (BMI), glucose, and lipid values] and cardiovascular evaluation studies [24-h ambulatory blood pressure monitoring, carotid intima-media thickness (CIMT), flow-mediated dilation (FMD), and echocardiography] were performed, and endothelial mediators [asymmetric dimethyl arginine (ADMA) and endothelin-1 (ET-1)] and pro-inflammatory cytokines [interleukin-1 β (IL-1 β) and tumor necrosis factor-alpha (TNF- α)] were measured. Control group was matched in terms of age, gender, and BMIs.

Results: Twenty-five patients, mean age 40.60 ± 14.04 years, completed the study. Compared to controls (n = 20) mean arterial pressure (MAP) and CIMT were higher (p < 0.005 and p = 0.012, respectively), and FMD (p < 0.001) and mitral E/A ratio (p = 0.007) lower in the patients during active disease. Baseline serum ADMA, ET-1, and IL-1 β were similar between the groups, while TNF- α was lower in the patients (p = 0.030). All patients were in complete remission 1 year following surgery. BMI, LDL cholesterol, serum total cholesterol, fasting plasma glucose, MAPs, and CIMT significantly decreased (p < 0.005), while there was no improvement in FMD (p = 0.11) following remission. There was no significant change in ADMA, IL-1 β , and TNF- α levels, but ET-1 increased (p = 0.011).

Conclusions: Remission in CS improves some cardiovascular parameters. ADMA and ET-1 are not reliable markers for endothelial dysfunction in CS. Metabolic improvements may not directly reflect on serum concentrations of TNF- α and IL-1 β following remission of CS.

Evaluation of Clinical and Laboratory Factors Affecting Bone Mineral Density Measurements in Patients with Kidney Transplant

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Histological evidence of osteodystrophy and osteopenia is encountered in most patients who have undergone successful renal transplantation. Renal transplantation may be beneficial for correcting uremia-related problems in end-stage renal disease patients; however, its benefit is limited in bone metabolism disorders. The present study aims to evaluate bone mass measurements and investigate the influencing factors in patients with renal transplant. One hundred and eighteen patients (83 males and 35 females) with a mean age of 40.2 ± 11.8 yr (range 20-67) were included in the present study. The laboratory and the clinical data of the patients were retrospectively analyzed. The association between bone mineral density (BMD) measurements and the demographic characteristics of the patients, serum creatinine, parathormone, calcium, phosphorous, alkaline phosphatase, 25-hydroxyvitamin D and the glomerular filtration rate were evaluated. Of the patients, 23.7% (n =28) had normal, 48.3% (n = 57) had osteopenic and 28% (n = 33) had osteoporotic BMD values. A significant positive correlation was determined between the body mass index (BMI) and the BMD measurement results (p = 0.001; r = 0.385). A negative correlation was determined between the BMD values and the serum parathormone (p = 0.012; r = -0.237). BMD values were significantly lower in the group that had not received mammalian target of rapamycin (mTOR) inhibitor (p = 0.026). Conclusion: BMI values, mTOR inhibitor treatment and serum parathormone levels had an effect on the BMD measurement values.

Visceral Adiposity Index as an Indicator of Cardiometabolic Risk in Patients with Congenital Adrenal Hyperplasia

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Aim: To evaluate the cardiometabolic risk in patients with CAH (21 (OH) enzyme deficiency) on the basis of the visceral adiposity index (VAI), which indicates dysfunction of the visceral adipose tissue (VAT).

Materials and Methods: A total of 41 patients and 38 body mass index (BMI), age, and gender-matched healthy controls (HC) were included. The patients' and HCs' age, gender, waist circumference (WC), BMI information and total cholesterol (TC), high-density lipoprotein (HDL), triglyceride (TG) values, smoking, and medication history were obtained from medical charts. Weight, height, WC, and blood pressure

levels were measured. Patients' and HCs' BMI, Framingham risk scores (FRS), VAI and Ferriman-Gallwey scores were calculated. The patients' and HCs' age, gender TC, HDL, and TG, androstenedione, dehydroepiandrosterone sulfate (DHEASO₄), 17 hydroxyprogesterone (17(OH)P) values, smoking, and medication history were obtained from medical charts. Body fat and muscle mass levels were measured with Tanita T 6360.

Results: Gender distribution, mean age, and BMI of patients with CAH were 34/7, 30 ± 8 , 27 ± 5.4 ; HC subjects 30/8, 30 ± 6 , 27 ± 3.8 (P = 0.9, 0.6, 0.9, respectively). The VAI values of patients with a diagnosis of CAH 3.7 (2.3-6.9) were found to be significantly higher than those of HC patients 2.5 (1.8-3.9; P = 0.02). The mean glucocorticoid doses of the patients were 17 ± 9 mg/day. The glucocorticoid dose level was determined as independent risk factor on the FRS (P = 0.03, $\beta = 0.04$) and VAI (P = 0.018, $\beta = 0.17$).

Conclusion: Glucocorticoid dose optimization should be done more carefully to improve metabolic and cardiovascular outcomes in CAH patients.

An Analysis of the Prevalence and Risk Factors of Contrast-Associated Acute Kidney Injury in Patients With Diabetic Foot Ulcer

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The occurrence of contrast-associated acute kidney injury (CA-AKI) is influenced by both patient-related and contrastrelated factors. More specifically, CA-AKI has been linked to renal dysfunction, diabetes mellitus (DM), and atherosclerotic cardiovascular diseases (ASCVD). We hypothesized that the prevalence of CA-AKI was high in patients with diabetic foot ulcers (DFU) because they frequently have several ASCVD risk factors and additional comorbid conditions (including ASCVD). We retrospectively examined the medical records of 208 type 2 diabetic patients who were hospitalized for DFU. These patients were divided into two groups: group 1 included 107 patients who underwent contrast-enhanced computed tomographic angiography (CTA); group 2 (control group) included 101 patients who did not receive contrast media. Following CTA, 13 (12.1%) patients developed CA-AKI in group 1, while 3 (3.0%) patients in group 2 had serum creatinine elevations consistent with AKI (P = 0.013). The following risk factors for CA-AKI were identified: longer history of DM, higher baseline serum creatinine, congestive heart failure, Wagner stage 4 and 5 DFUs, peripheral artery disease, older age, and lower hemoglobin values. CA-AKI is a common complication after CTA in patients with DFU. To reduce the risk of CA-AKI in these patients, associated risk factors and preventive measures should be considered.

Comparison of Thyroid Fine Needle Aspiration Biopsy And Ultrasonography Results

Lezzan Keskin, Doğu Karahan, Bülent Yaprak Medicine (Baltimore). 2023 Jun 30;102(26):e33822. doi: 10.1097/ MD.00000000033822. PMID: 37390290 PMCID: PMC10313267 DOI: 10.1097/ MD.00000000033822

Thyroid nodules are one of the most common health problems in the community. Although most of the nodules are benign, Fine needle aspiration biopsy (FNAB) is requested due to malignancy concerns. In this research, the aim was to make a comparison of the results of thyroid ultrasonography (USG) and FNAB for thyroid nodules. This study was conducted retrospectively on the data of 532 patients. Detail Edu ultrasonographic assessment was conducted before the FNAB procedure and FNAB was performed by an endocrinology specialist. FNAB results and Thyroid USG features were compared, and thyroid FNAB results were graded using the classification of World Health Organization Bethesda-2017. The average age of the individuals included in the research was 49.99 ± 13.65 (min = 18-max = 97). According to the 2017 Bethesda classification, 74.6% of FNAB results were benign, 16% follicular lesion of undated mined significance or A type of undated mined significance, 0.9% were malignant, and 1.1% were suspicious for malignancy. When USG findings were compared according to FNAB results, it was found that malignant lesions were significantly higher in single nodules (non- cystic and non- mixed lesions). Lesions with a single nodule on USG were found to be 3.6 times more likely to be malignant (OR 95% CI: 1.172-11.352). The gold standard method for the diagnosis the presence of thyroid nodules is thyroid fine needle aspiration biopsy with ultrasound guidance. Taking samples from the correct nodule and component increases its value. The presence of a single nodule from the thyroid USG features was found to be an important predictor of malignancy according to the biopsy results.

Giant Growth Hormone-Secreting Pituitary Adenomas From The Endocrinologist's Perspective

Bahadir Koylu, Busra Firlatan, Suleyman Nahit Sendur, Seda Hanife Oguz, Selcuk Dagdelen, Tomris Erbas

Endocrine. 2023 Mar;79(3):545-553. doi: 10.1007/s12020-022-03241-2. Epub 2022 Nov 1. PMID: 36318446 DOI: 10.1007/s12020-022-03241-2

Objectives: Since giant (\geq 40 mm) GH-secreting pituitary adenomas are rarely encountered, data on their characteristics and treatment outcomes are limited. We aimed to investigate the characteristics of giant GH-secreting pituitary adenomas and to compare their clinical, biochemical, imaging and histopathological features with non-giant macroadenomas.

Materials and methods: We have evaluated 15 (six female/nine male) and 57 (29 female/28 male) patients with acromegaly in giant and <40 mm adenoma groups, respectively. Patients with <40 mm adenoma were further divided into subgroups with adenoma size 20-29 mm and 30-39 mm.

Results: In giant adenoma group, median (IQR) preoperative maximal diameter of adenoma was 40 mm (5 mm), median preoperative GH level was 40 (153.4) ng/mL and median baseline IGF-1 level was 2.19 (1.88) \times ULN for age and sex. The number of surgeries was significantly higher in giant adenoma group (median 2, IQR 2) in which 66.7% of patients underwent repeated surgeries (p = 0.014). Residual tumor was detected after last operation in all patients with giant adenoma. Total number of treatment modalities administered postoperatively increased as adenoma size increased (p = 0.043). After a median follow-up duration of 10 years (IQR 10), hormonal remission was achieved in six patients (40%) of giant adenoma group, while the rate of hormonal remission in non-giant adenoma group was 37%. Although preoperative GH and IGF-1 levels and Ki-67 index tended to be higher with increasing adenoma size, there was no statistically significant difference between groups in terms of these variables, as well as age, sex and invasion status.

Conclusion: Hormonal remission rates of acromegaly patients with ≥ 20 mm pituitary macroadenoma were comparable. However, giant GH-secreting pituitary adenomas require an aggressive multimodal treatment approach.

The Effects of Dexmedetomidine on Abdominal Aortic Occlusion-Induced Ovarian Injury Via Oxidative Stress and Apoptosis

Filiz Mercantepe, Levent Tumkaya, Tolga Mercantepe, Kerimali Akyildiz, Serpil Ciftel, Adnan Yilmaz

Cells Tissues Organs. 2023 Jun 20. doi: 10.1159/000531613. Online ahead of print. PMID: 37339613 DOI: 10.1159/000531613

Ischemia/reperfusion (IR) induced ovarian damage is caused by various diseases such as ovarian torsion, ovarian transplantation, cardiovascular surgery, sepsis, or intraabdominal surgery. I/R-related oxidative damage can impair ovarian functions, from oocyte maturation to fertilization. This study investigated the effects of Dexmedetomidine (DEX), which has been shown to exhibit antiapoptotic, antiinflammatory and antioxidant effects, on ovarian ischemiareperfusion (I/R) injury. We designed four study groups. Group 1 (n = 6): Control group; group 2 (n = 6): Only DEX group; group 3 (n = 6): I/R group, group 4 (n = 6): I/R + DEX group. Then, ovarian samples were taken and examined histologically and immunohistochemically, and tissue malondialdehyde (MDA) and glutathione (GSH) levels were measured. In the I/R group MDA levels, caspase-3, NF-k^β/p65, 8-OHdG positivity, and follicular degeneration, edema, and inflammation were increased than in the Control group (P=0.000). In addition, GSH levels were significantly decreased in the I/R group compared to the Control group (P=0.000). On the other hand, in the I/R+DEX treatment group MDA levels, caspase-3, NF-kβ/p65, 8-OHdG positivity, follicular degeneration, edema, and inflammation findings were decreased than in the I/R group (P=0.000, P=0.005, P=0.005, P=0.001, P=0.005, respectively). However, GSH levels increased significantly in the I/R+DEX treatment group compared to the I/R group (P=0.000). DEX protects against ovarian I/R injury through antioxidation and by suppressing inflammation and apoptosis.

Follow, Consider, and Catch: Second Primary Tumors in Acromegaly Patients

Seda Hanife Oguz, Busra Firlatan, Suleyman Nahit Sendur, Selcuk Dagdelen, Tomris Erbas

Endocrine. 2023 Apr;80(1):160-173. doi: 10.1007/s12020-022-03282-7. Epub 2022 Dec 15. PMID: 36517649 DOI: 10.1007/s12020-022-03282-7

Background and aim: The risk of second primary tumors is increased in general cancer population, however, there is no data on acromegalic cancer patients in this regard. The aim of this study is to determine the prevalence of patients with two primary tumors among acromegalic cancer patients and to evaluate if patients with two primaries have distinct clinical characteristics or risk factors compared to those with one.

Methods: This is a single-center retrospective cohort study. The study included 63 patients with at least one malignant tumor out of a total number of 394 acromegaly patients. Patients with multiple primary neoplasms were evaluated in detail.

Results: This study revealed a 16% cancer prevalence in acromegaly patients, with 14% (9/63) having two primary neoplasms. Papillary thyroid carcinoma was the most prevalent tumor in the entire cancer cohort (41%, 26/63), and in the group of patients with two primaries (44%, 4/9). Patients with two primary tumors were older than those with one when diagnosed with acromegaly (48.3 ± 16.6 vs. 43.3 ± 10.7 years), which might be attributed to a longer diagnostic delay (median of 4.5 vs. 2 years). The period between the onset of acromegaly symptoms and diagnosis was not associated with earlier cancer diagnosis. No relationship between circulating GH or IGF-I levels and the number of neoplasms was found.

Conclusion: The development of second primary tumors in acromegalic patients with cancer diagnosis is not rare. Acromegalic cancer patients should be closely monitored for new symptoms or signs that could be associated with second primary tumors.

A Genetic Assessment of Dopamine Agonist-Induced Impulse Control Disorder in Patients With Prolactinoma

Serdar Sahin, Tugce Sudutan, Yasin Kavla, Emre Durcan, Yeliz Yagiz Özogul, Burc Cagri Poyraz, Muge Sayitoglu, Hande Mefkure Ozkaya, Pinar Kadioglu J Clin Endocrinol Metab. 2023 May 17;108(6):e275-e282. doi: 10.1210/clinem/ dgac718. PMID: 36494095 DOI: 10.1210/clinem/dgac718

Context: Dopamine agonist (DA)-induced impulse control disorder (ICD) represents a group of behavioral disorders that are increasingly recognized in patients with prolactinoma.

Objective: We aimed to examine the genetic component of the underlying mechanism of DA-induced ICD.

Methods: Patients with prolactinoma receiving dopamine agonist (cabergoline) treatment were included in the study. These patients were divided into 2 groups: patients who developed ICD due to DA and patients who did not. Patients were evaluated for polymorphisms of the DRD1, DRD3, COMT, DDC, GRIN2B, TPH2, OPRK1, OPRM1, SLC6A4, SLC6A3, HTR2A genes.

Results: Of the 72 patients with prolactinoma using cabergoline, 20 were diagnosed with ICD. When patients with and without ICD were compared according to genotype frequencies, OPRK1/rs702764, DRD3/rs6280, HTR2A/rs6313, SLC6A4/rs7224199, GRIN2B/rs7301328, TPH2/rs7305115, COMT/rs4680, DRD1/rs4532 polymorphisms significantly increased in patients with DA-induced ICD.

Conclusion: Our results show that multiple neurotransmission systems affect DA-induced ICD in patients with prolactinoma.

COVID-19 Vaccination And Thyroiditis

Süleyman Nahit Şendur, Seda Hanife Oğuz, Uğur Ünlütürk Best Pract Res Clin Endocrinol Metab. 2023 Jul;37(4):101759. doi: 10.1016/j. beem.2023.101759. Epub 2023 Mar 3. PMID: 36933997 PMCID: PMC9981269 DOI: 10.1016/j.beem.2023.101759

At the end of 2019, the world began to fight the coronavirus disease 2019 (COVID-19) pandemic caused by the severe acute respiratory syndrome coronavirus-2. Many vaccines have quickly been developed to control the epidemic, and with the widespread use of vaccines globally, several vaccine-related adverse events have been reported. This review mainly focused on COVID-19 vaccination-associated thyroiditis and summarized the current evidence regarding vaccine-induced subacute thyroiditis, silent thyroiditis, Graves' disease, and Graves' orbitopathy. The main clinical characteristics of each specific disease were outlined, and possible pathophysiological mechanisms were discussed. Finally, areas lacking evidence were specified, and a research agenda was proposed.

The Triglycerides-Glucose Index Shows a Stronger Correlation with Serum Adiponectin Levels than Homeostasis Model Assessment of Insulin Resistance and Quantitative Insulin Sensitivity Check Index

Suleyman Nahit Sendur, Kübra Isgin Atici, Busra Turan Demirci, Incilay Lay, Zehra Buyuktuncer, Tomris Erbas

Metab Syndr Relat Disord. 2023 Sep;21(7):410-414. doi: 10.1089/met.2023.0054. Epub 2023 Jul 12. PMID: 37437105 DOI: 10.1089/met.2023.0054

Purpose: To evaluate the association between diverse surrogate markers of insulin resistance and adiponectin concentrations.

Methods: Four hundred healthy participants were included. Two different cohorts were formed according to the body mass index (BMI) values. Group 1 (n = 200) consisted of individuals with normal BMI values (18.50-24.99 kg/m²), whereas in Group 2 (n = 200) there were overweight or obese individuals (BMI ≥ 25.00 kg/m²). Homeostasis model assessment of insulin resistance (HOMA-IR), quantitative insulin sensitivity check index (QUICKI), and triglyceridesglucose index (TyG) were calculated. Serum adiponectin levels were measured by ELISA. A correlation analysis was performed to assess the association between serum adiponectin and HOMA-IR, QUICKI, and TyG.

Results: Participants in Group 2 were older (age in years: Group 1, 33.3 \pm 6.8 vs. Group 2, 36.4 \pm 7.0, P <0.001). There was no gender difference between groups. Overweight or obese participants had higher BMI, waist circumference, fat mass, fat ratio, fasting plasma glucose, fasting plasma insulin, triglycerides, total cholesterol, and low-density lipoprotein cholesterol values, whereas highdensity lipoprotein cholesterol was higher in participants with normal BMI measures. Overweight or obese subjects were more insulin resistant (higher TyG index and HOMA-IR) and less insulin sensitive (lower QUICKI), P < 0.001 for all. Serum adiponectin levels were lower in Group 2 (serum adiponectin in ng/mL: Group 1, 11,880 ± 6838 vs. Group 2, 9115 \pm 5766, P <0.001). The correlation between TyG index and adiponectin was stronger than the correlation between QUICKI and adiponectin, and HOMA-IR and adiponectin (r for TyG and adiponectin -0.408, r for QUICKI and adiponectin 0.394, r for HOMA-IR and adiponectin -0.268, respectively, P < 0.001 for all correlations).

Conclusions: TyG has a stronger association with adiponectin than HOMA-IR and QUICKI.

Serum Growth Differentiation Factor-15 Levels are Associated with The Severity of Diabetic Foot Ulcer

Suleyman Nahit Sendur, Busra Firlatan, Gokhan Baykal, Incilay Lay, Tomris Erbas

Hormones (Athens). 2022 Dec;21(4):719-728. doi: 10.1007/s42000-022-00408-4. Epub 2022 Oct 25. PMID: 36280643 DOI: 10.1007/s42000-022-00408-4

Aims: To assess serum growth differentiation factor-15 (GDF-15) levels in patients with diabetic foot ulcer and to reveal whether any association exists between GDF-15 and the severity of diabetic foot ulcer.

Design: A cross-sectional study including three age- and sex-matched cohorts comprising 17 patients (7 F, mean age: 52 ± 7 years) with diabetic foot ulcer (DMf), 17 patients with type 2 diabetes (6 F, mean age: 51 ± 6 years) with no foot complication (DM), and 20 healthy controls (8 F, mean age: 50 ± 8 years) (C) was conducted.

Results: DMf had higher GDF-15 levels, followed by DM and C (GDF-15, median \pm IQR (pg/mL), DMf: 1039 (884-1566), DM: 649 (375-1148), and C: 296 (212-534), p <0.001). The severity of diabetic foot disease was positively associated with serum GDF-15 (GDF-15, median \pm IQR (pg/mL), Wagner grade 1: 893 (698-1039), Wagner grade 3: 1705 (1348-2197), and Wagner grade 4: 3075 (1974-4176), p for trend = 0.006). In multivariate regression model, only Wagner grade (β = 0.55, 95% CI (87-753), p = 0.02) was found to be an independent factor affecting serum GDF-15 concentration.

Conclusions: Serum GDF-15 levels are high in patients with diabetic foot ulcer. The level is higher in more advanced lesions. GDF-15 measurement can have clinical utility in the management of diabetic foot ulcers.

Altered Thalamic Volume in Patients with Mild Autonomous Cortisol Secretion: A Structural Brain MRI Study

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Neuroradiology. 2023 Jun;65(6):1037-1051. doi: 10.1007/s00234-023-03156-3. *Epub 2023 May 1. PMID: 37121916 DOI: 10.1007/s00234-023-03156-3*

Purpose: To compare thalamic volume and cognitive functions of patients with mild autonomous cortisol secretion (MACS) with control subjects and patients with overt Cushing's syndrome (CS).

Methods: In this cross-sectional study, volumes of regions of interest were assessed using 3 T magnetic resonance imaging and a voxel-based morphometry approach in 23 patients with MACS, 21 patients with active CS, 27 patients with CS in remission, and 21 control subjects. Cognitive functions were assessed using validated questionnaires.

Results: Patients with MACS had smaller left thalamic (F = 3.8, p = 0.023), left posterior thalamic (F = 4.9, p = 0.01), left medial thalamic (F = 4.7, p = 0.028), and right lateral thalamic (F = 4.1, p = 0.025) volumes than control subjects. Patients with active CS also had smaller left thalamic (F = 3.8, p = 0.044), left posterior thalamic (F = 4.9, p = 0.007), left medial thalamic (F = 4.7, p = 0.006), and right lateral thalamic (F = 4.1, p = 0.042) volumes compared to controls. Patients with CS in remission had smaller left medial (F = 4.7, p = 0.030) and right lateral thalamic (F = 4.1, p = 0.028) volumes than controls. Neuropsychological tests showed no difference between the groups.

Conclusion: MACS may decrease thalamic volume.

Effect of Metformin on Thyroid Cancer Risk in Patients with Acromegaly: A Preliminary Observational Study

Cem Sulu, Ayyuce Begum Bektas, Suleyman Sami Guzel, Kubilay Tay, Serdar Sahin, Emre Durcan, Hande Mefkure Ozkaya, Pinar Kadioglu Growth Horm IGF Res. 2022 Jun 30;66:101484. doi: 10.1016/j.ghir.2022.101484. Online ahead of print. PMID: 35870256 DOI: 10.1016/j.ghir.2022.101484

Purpose: To evaluate the role of metformin on thyroid cancer risk in patients with acromegaly.

Methods: Medical charts of 534 patients with acromegaly that were followed-up between 1983 and 2019 were reviewed. Patients with follow-up duration at least 6 months were included. Cohort entry was defined as first visit date. The date of each case's thyroid cancer diagnosis was defined as index date. Patients were followed until the index date, death, or last visit date, whichever came first. Nested case-control study design was selected to evaluate the association between metformin and the thyroid cancer risk in patients with acromegaly.

Results: 291 patients with acromegaly were included into final analysis. The mean age at acromegaly diagnosis was 42.3 ± 1.3 years. The median follow-up duration was 76 [34-132] months. Among 291 patients, 13 patients (4.5%) had thyroid cancer. Thirty-one percent (n = 92) of the patients used metformin for 6 months or longer. One standard deviation (SD) increase in average growth hormone increased the odds of having thyroid cancer by 1.164 folds (p = 0.017). One SD increase of the average insulin-like growth factor 1 to upper limit of normal ratio increased the odds of having thyroid cancer by 1.201 folds (p = 0.004). If a patient used metformin for at least 6 months, the odds to have thyroid cancer was decreased, multiplied by 0.62 with a 95% confidence interval of [0.47, 0.83] (p = 0.0013). The risk of thyroid cancer decreased with increasing duration of metformin use.

Conclusion: Metformin may decrease the thyroid cancer risk in patients with acromegaly.

A Novel Finding of an HLA Allele's and a Haplotype's Relationship with SARS-CoV-2 Vaccine-Associated Subacute Thyroiditis

Melisa Sahin Tekin, Goknur Yorulmaz, Emel Yantir, Eren Gunduz, Ertugrul Colak Vaccines (Basel). 2022 Nov 23;10(12):1986. doi: 10.3390/vaccines10121986. PMID: 36560396 PMCID: PMC9788374 DOI: 10.3390/vaccines10121986

Subacute thyroiditis (SAT) is a thyroid disease associated with viral infections. Its relationship with major histocompatibility complex (MHC) antigens was shown before. SAT cases triggered by different types of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccines have been reported. In this study, human leukocyte antigen (HLA) genotypes of 27 SAT patients (13 vaccine-associated (V-SAT) and 14 non-SARS-CoV-2-infection non-vaccine-associated (non-V-SAT)) were compared with those of 362 healthy donors. HLA analyses were performed with low-resolution DNA-based sequence-specific oligonucleotide or

sequence-specific primer methods. Statistical analyses were performed using IBM SPSS Statistics 25 and Stata/MP 14.1 with the hapipf function. Allele and haplotype frequencies were estimated by PyPop and gene[RATE] tool programs. The allele frequencies of HLA-A*11, HLA-B*35, and HLA-C*04 were higher in the patient groups. Both the allele frequency of HLA-A*11 and the haplotype frequency of A*11-B*35-C*04 were higher in the V-SAT group. The A*11-B*35-C*04 haplotype, including all three loci of MHC class I genes, is shown to be associated with the disease for the first time, especially in the V-SAT group. This finding will contribute to a better understanding of the etiopathogenesis of vaccine-associated SAT and the role of HLA genotypes in the functioning mechanisms of the SARS-CoV-2 vaccines.

Evaluation of the Anticancer Effect of Telomerase Inhibitor BIBR1532 in Anaplastic Thyroid Cancer in Terms of Apoptosis, Migration and Cell Cycle

Ecem Turkmen, Fatma Sogutlu, Mehmet Erdogan, Cigir Biray Avci Med Oncol. 2023 Jun 7;40(7):196. doi: 10.1007/s12032-023-02063-0. PMID: 37284891 DOI: 10.1007/s12032-023-02063-0

Anaplastic thyroid cancer (ATC) represents the type with the worst prognosis among thyroid cancers. In ATC with a highly invasive phenotype, selective targeting of TERT with BIBR1532 may be a goal-driven approach to preserving healthy tissues. In present study, it was aimed to investigate the effects of treatment of SW1736 cells with BIBR1532 on apoptosis, cell cycle progression, and migration. The apoptotic effect of BIBR1532 on SW1736 cells was examined using the Annexin V method, the cytostatic effect using cell cycle test, migration properties using wound healing assay. Gene expression differences were determined by real-time qRT-PCR and differences in protein level by ELISA test. BIBR1532-treated SW1736 cells had 3.1-fold increase in apoptosis compared to their untreated counterpart. There was 58.1% arrest in the $G_0\!/G_1$ phase and 27.6% arrest in the S phase of the cell cycle in untreated group, treatment with BIBR1532 increased cell population in G_0/G_1 phase to 80.9% and decreased in S phase to 7.1%. Treatment with the TERT inhibitor resulted in a 50.8% decrease in cell migration compared to the untreated group. After BIBR1532 treatment of SW1736 cells, upregulation of BAD, BAX, CASP8, CYCS, TNFSF10, CDKN2A genes, and downregulation of BCL2L11, XIAP, CCND2 genes were detected. BIBR1532 treatment resulted in an increase in BAX and p16 proteins, and a decrease in concentration of BCL-2 protein compared to untreated group. Targeting TERT with BIBR1532 as a mono drug or using of BIBR1532 at "priming stage" prior to chemotherapy treatment in ATC may present a novel and promising treatment strategy.

Glycemic Variability Leads to Higher Levels of Auto-Oxidized Oxysterol Species in Patients with Type 1 Diabetes Mellitus

U Ünlütürk, A B Bahçecioğlu, A Samadi, I Lay, M Bayraktar, S Dağdelen J Endocrinol Invest. 2023 May 15. doi: 10.1007/s40618-023-02110-7. Online ahead of print. PMID: 37188911 DOI: 10.1007/s40618-023-02110-7

Purpose: Hyperglycemia and glycemic variability (GV) are associated with oxidative stress in patients with diabetes mellitus (DM). Oxysterol species, produced by the nonenzymatic oxidation of cholesterol, are potential biomarkers of oxidative stress. This study examined the relationship between auto-oxidized oxysterols and GV in patients with type 1 DM.

Methods: Thirty patients with type 1 DM using a continuous subcutaneous insulin infusion pump therapy and a healthy control group (n = 30) were included in this prospective study. A Continuous Glucose Monitoring System device was applied for 72 h. Blood samples were taken for oxysterols produced by non-enzymatic oxidation [7-ketocholesterol (7-KC) and cholestane-3 β , 5 α , 6 β -triol (Chol-Triol)] levels at 72 h. Short-term glycemic variability parameters, mean amplitude of glycemic excursions (MAGE), the standard deviation of glucose measurements (Glucose-SD), and mean of daily differences (MODD) were calculated with continuous glucose monitoring data. HbA1c was used to evaluate glycemic control and HbA1c-SD (the SD of HbA1c over the past year) for long-term glycemic variability.

Results: 7-KC and Chol-triol levels were significantly higher in the study group than in the control group. Strong positive correlations were found between 7-KC with MAGE(24-48 h) and Glucose-SD(24-48 h). 7-KC was positively correlated with MAGE(0-72 h) and Glucose-SD(0-72 h). No significant correlation was found between HbA1c and HbA1c -SD with oxysterol levels. The regression models showed that SD(24-48 h) and MAGE(24-48 h) predicted 7-KC levels while HbA1c did not.

Conclusions: Glycemic variability leads to higher levels of auto-oxidized oxysterol species in patients with type 1 DM independent of long-term glycemic control.

Vitamin D Supplementation Alleviates Diabetic Complications by Increasing the Amount of Irisin in Testicular Tissues and Blood of Rats with Experimental Diabetes

M H Yalcin, A Girgin, K Ugur, Z K Karagoz, S Aydin, B Karabulut, S Timurkaan, B G Tarakci, H Eroksuz, I Sahin, T Kuloglu, S Aydin Eur Rev Med Pharmacol Sci. 2023 Jan;27(2):547-559. doi: 10.26355/ eurrev_202301_31056. PMID: 36734714 DOI: 10.26355/eurrev_202301_31056

Objective: Diabetes is an important endocrinological disease that has an increasing incidence in the world and affects all biological tissues including testicles. Therefore, this study aimed to reveal the histological and biochemical effects of vitamin D on irisin, apoptosis, total antioxidant status (TAS), and total oxidant status (TOS) in testicular tissues of rats with experimental diabetes.

Materials and methods: 41 male Wistar rats, 8-10 weeks old, weighing between 200-220 g, were included in the study as the following groups: control group (n=7; no treatment), sham group [only sodium citrate buffer (SCB)] [n=7; single dose 0.1 Molar (M) SCB given intraperitoneally (i.p)], vitamin D group (n=7; 50 IU/day given orally), diabetes group [n=10; single dose 50 mg/kg Streptozotocin (STZ) dissolved in 0.1 M SCB and given i.p (tail vein blood glucose level above 250 mg/dl after 72 hours)] and diabetes+vitamin D group [n=10, single dose 50 mg/kg STZ, dissolved in 0.1 M SCB and given i.p (tail vein blood glucose level above 250 mg/dl after 72 hours) and when diabetes occurs, oral vitamin D administration of 50 IU/day)]. At the end of the 8 weeks experiment, blood was drawn from the tail vein of all rats, they were sacrificed and testicular tissues were taken. While the amount of irisin in the blood and testicular tissue supernatants was analyzed with the Enzyme-Linked Immunosorbent Assay (ELISA) method, TAS and TOS measurements were analyzed with the REL method, testicular tissues were analyzed histopathologically, immunohistochemically, and with the TUNEL method.

Results: When the diabetes group was compared with the control and sham groups, it was reported that the amounts of blood and tissue supernatant irisin and TAS significantly decreased and the TOS was significantly increased; a statistically significant increase in irisin and TAS of blood and tissue supernatants and a significant decrease in TOS were detected when diabetes+vitamin D and diabetes groups were compared among themselves. Similar results were obtained in the immunohistochemical studies. Tissue expressions of irisin decreased in the diabetes group compared to the control and sham groups, while the application of vitamin D increased the tissue expressions of irisin. Additionally, when the numbers of apoptotic cells were compared, it was reported that apoptotic cells in the diabetes group increased significantly compared to the control and sham groups, and vitamin D administration significantly decreased the number of apoptotic cells.

Conclusions: Taken together, vitamin D administration to diabetic rats decreased the number of apoptotic cells and increased the amount of irisin. Vitamin D had an effective role in maintaining the physiological integrity of rat testicular tissues, so vitamin D may be a potent agent to be used in the treatment of diabetes in the future.

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TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ

DUYURULAR



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TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ

DUYURULAR

Değerli Üyemiz,

"Tıbbi Beslenme ve Egzersiz Metabolizması Kılavuzu-2023" güncellenmiş ve web sayfamızda yayınlanmaya başlamıştır. Kılavuza ulaşmak için lütfen tıklayınız.

Emeği geçen grup başkanımıza ve üyelerimize teşekkür ederiz. Saygılarımızla

TEMD Yönetim Kurulu

TEMD Kitap Basım Desteği ile İlgili Yönerge

Değerli Üyemiz,

TEMD Kitap Basım Desteği ile İlgili Yönerge web sayfamıza yüklenmiştir.Yönergeye aşağıdaki linkten ulaşabilirsiniz.

https://temd.org.tr/hakkimizda/yonergeler/kitap-basim-destegi

Saygılarımızla TEMD Yönetim Kurulu

Toplantı Yönergesi

Değerli Üyemiz,

TEMD Toplantı Yönergesi güncellenmiştir. Yönergeye aşağıdaki linkten ulaşabilirsiniz.

https://temd.org.tr/hakkimizda/yonergeler/toplantiyonergesi

Saygılarımızla TEMD Yönetim Kurulu





ÜYELERİMİZDEN DUYURULAR



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doçentliğe yükselmiştir.

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