

TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ



Üç ayda bir online yayınlanır

Sayı 81 • Ocak – Şubat – Mart • 2023

“ CUMHURİYETİMİZİN KURULUŞUNUN 100. YILINDA ATAMIZIN HUZURUNDAYIZ... ”



Cumhuriyetimizin Kurucusu Büyük Atatürk,

Türkiye Endokrinoloji ve Metabolizma Derneği Yönetim Kurulu olarak Cumhuriyetimizin kuruluşunun 100. yılında size, ilkelerinize ve eserlerinize bağlılığımızı sunmak için yüksek huzurunuzdayız.

Siz ülkemize bağımsızlığını kazandıran ve Cumhuriyetimizi kuran eşsiz kahramanımızsınız. Düşüncelerinizle, ilkelerinizle, devrimlerinizle yok olmak üzere olan bir ulusu yeniden canlandırdınız; tekrar hayaller ve umutlarla beslediniz. Çalışkanlığınız, kararlılığınız, cesaretiniz, sabrınız ve ileri görüşlülüğünüzle uygar ve demokratik bir ülke inşa ettiniz. Bilime, sanata, edebiyata verdiğiniz önemle ülkemizi çağdaş uluslar düzeyine çıkardınız. Sadece ülkemize değil, tüm dünyaya yıllar boyunca ilham veren bir lider oldunuz, olmaya devam ediyorsunuz.

Biz Türk hekimleri olarak “Beni Türk hekimlerine emanet ediniz” sözünüzden aldığımız güçle geçmişte olduğu gibi gelecekte de mesleğimizi aklın ve bilimin ışığında icra etmeye devam edeceğiz. Bize bıraktığınız mirası ülkemiz ve tüm dünya insanların yararına koruyacağımıza, kurduğunuz Cumhuriyeti ve devrimlerini sonsuza dek yaşatacağımıza söz veriyoruz. Huzur içinde uyuyun.

*Türkiye Endokrinoloji ve Metabolizma Derneği
Yönetim Kurulu adına,*

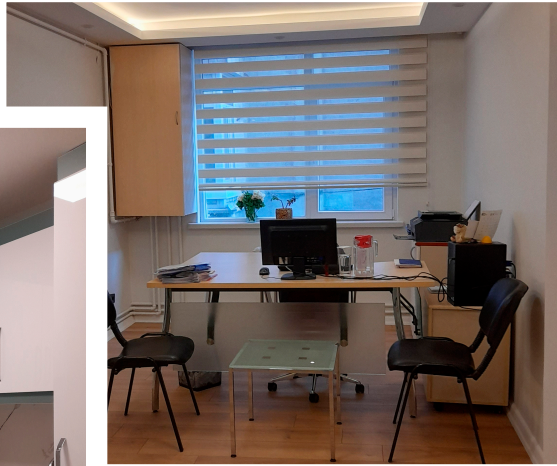
*Prof. Dr. Ayşegül Atmaca
Yönetim Kurulu Başkanı*

DERNEK MERKEZİMİZ YENİLENDİ!

2002 yılında Ankara Meşrutiyet caddesinde hizmet vermeye başladığımız dernek merkezimiz tadilat yapılarak yenilenmiştir.

Tadilat kapsamında tüm ahşap pencereler ve tüm iç kapılar değiştirilmiş, ahşap dış kapı çelik kapı olarak yenilenmiştir. Salon parkesi yenilenmiş, salon tavanına alçıpan ve modern aydınlatmalar yapılmıştır. Salonda bulunan eski radyatörler, yenileri ile değiştirilmiştir. Giriş

kısımında bulunan asma tavan sökülerek yeniden modern alçıpan ve ışıklandırma yapılmıştır. Giriş ve koridor seramikleri parke olarak değiştirilmiştir. Tüm dairenin boya, badana ve tamir işleri yapılmış, mutfak ve tuvalet tamamen yeniden yapılmış, depo olarak kullanılan kısım ikinci bir tuvalet olarak sıfırdan yapılmıştır. Salonda bulunan eski sandalye ve masalar kurumlara bağışlanmış, salona ihtiyaca yönelik masa ve sandalyeler alınmıştır.



ENDOKRİN AKADEMİ YENİ MODÜLLERİMİZ

www.endokrinakademi.org

2. MODÜL
DIABETES MELLITUS

4.BÖLÜM-2.DERS
Diyabetli bireyin haklarını yeterince biliyor muyuz?

YAYINDA

Türkiye Endokrinoloji Ve Metabolizma Derneği'nin Online Eğitim Platformu Endokrin Akademi'de bu konuyu siz değerli meslektaşlarımız için anlattım.

Dr. Reyhan Ersoy
Eğitmen

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15. MODÜL
ADRENAL VE GONADAL HASTALIKLAR

1. BÖLÜM-1.DERS
Addison Hastalığı

YAYINDA

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Dr. Nur Kebapçı
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12.BÖLÜM-16.DERS **YAYINDA**

Olgularla Otonom Kortizol Sekresyonuna Yaklaşım

Konuşmacı
Dr. Mustafa Ünübol

Konuşmacı
Dr. Özer Makay

Moderatör
Dr. Engin Güney

Konuşmacı
Dr. Banu Şarer Yürekl

Konuşmacı
Dr. Alparslan Ünsal

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12.BÖLÜM-15.DERS
Türkçe & İngilizce

YAYINDA

WHO 2022 Tiroid Tümör Sınıflandırması Açısından Tiroid Patolojisine Algoritmik Yaklaşım

Moderator
Dr. Mustafa Şahin

Moderator
Dr. Erman Çakal

Konuşmacı
MD, PhD
Zubair W. Baloch

TEMED
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15. MODÜL
ADRENAL VE GONADAL HASTALIKLAR

1. BÖLÜM-5.DERS
Primer Hiperaldosteronizm

YAYINDA

Türkiye Endokrinoloji Ve Metabolizma Derneği'nin Online Eğitim Platformu Endokrin Akademi'de bu konuyu siz değerli meslektaşlarımız için anlattım.

Dr. Engin Güney
Eğitmen

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12.BÖLÜM-17.DERS **YAYINDA**

Multidisipliner Bakış Açısıyla Yaşlı Erişkinlerde Diyabet Yönetimi

Moderatör
Dr. Serpil Salman

Moderatör
Dr. Alper Sönmez

Konuşmacı
Dr. Gülşah Yenidünya Yalın

Konuşmacı
Dr. Gülistan Bahat Öztürk

Konuşmacı
Dr. Zeynep Tüfekçioğlu

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AZ GÖRÜLEN TİROİD VAKALARI

Moderatör

Prof. Dr. Mustafa Kulaksızoğlu
Necmettin Erbakan Üniversitesi
Meram Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, Konya

Konuşmacı

Uzm. Dr. Zeliha Yazar
Necmettin Erbakan Üniversitesi
Meram Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, Konya

Konuşmacı

Uzm. Dr. Yusuf Karadeniz
Karaman Eğitim Ve Araştırma Hastanesi
Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, Karaman

CANLI

31 Ocak 2023 Salı
Saat : 20:00

1- 31 Ocak
Tiroid Farkındalık Ayı
"Tiroid, doğru tanı ve tedavi uygulandığında
başarı ile yönetilen hastalıklar barındıran
bir iç salgı bezidir!"



**NADİR
HASTALIKLAR
GÜNÜ**
28 ŞUBAT



**DÜNYA
DİYETİTİK
GÜNÜ**
4 MART



TEMED

ENDOKRİN TV

TEMED
Endokrin TV
Videoları Yayında!

Hastalar için bilim dalmızla ilgili kısa videolar web sayfamıza eklenmiştir. Emeği geçen meslektaşlarımıza teşekkür ederiz. Videolara ulaşmak için lütfen **tıklayınız**.



D Vitamini Takviyesi ve Tedavisi Nasıl Olmalıdır? D Vitamini Fazlalığının Zararları Nelerdir? - Prof. Dr. Ayşegül Atmaca



Kimlerde D Vitamini Eksikliği Araştırıyoruz? D Vitamini Eksikliği Tanısını Nasıl Koyuyoruz? - Prof. Dr. Ayşegül Atmaca



D Vitamini Eksikliğinin Belirtileri Nelerdir? D Vitamini Eksikliği Hangi Hastalıklara Yol Açar? - Prof. Dr. Ayşegül Atmaca



Obezite Tedavisini Nasıl Yapıyoruz? - Prof. Dr. İbrahim Şahin



Kan Şekeri Kontrolü Neden Önemlidir? - Prof. Dr. Serpil Salman



D Vitamini Nedir? Kaynakları Nelerdir? - Prof. Dr. Ayşegül Atmaca



Obezitenin Sağlığımıza Olumsuz Etkileri Nelerdir? - Prof. Dr. İbrahim Şahin



Obezite Nedir? - Prof. Dr. İbrahim Şahin



Prediyabet Nedir? - Prof. Dr. Mustafa Cesur



18
MART
ÇANAKKALE
ZAFERİMİZ
Kutlu Olsun





44. TÜRKİYE ENDOKRİNOLOJİ ve METABOLİZMA HASTALIKLARI KONGRESİ

12-13 MAYIS 2023
THE MARMARA TAKSİM
İSTANBUL



Bilimsel Sekreteryası
Türkiye Endokrinoloji ve Metabolizma
Derneği

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TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
DERNEĞİ

ENDOKURS

7

Mezuniyet Sonrası
Eğitim Kursu

26-29 Ekim 2023

Crowne Plaza
Bursa

100
CUMHURİYETİMİZİN 100. YILI



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MEET THE SOCIETY

Time to meet... Early career colleagues in Turkey

The Society of Young Endocrinologists of Turkey (SYET) was founded in 2017 as a subgroup within the Society of Endocrinology and Metabolism of Turkey (SEMT).

SYET's first activities were to organise short scientific sessions for young endocrinologists during the SEMT annual national congresses. These gave early career endocrinologists an opportunity to present their work during the largest national meeting for endocrinology in Turkey. Evening meetings between the SEMT Executive Committee and members of SYET became a tradition of these congresses, providing a platform to meet each other and discuss current issues and future projects.

The idea of organising multicentric studies emerged during these meetings. With the supervision of leaders in the field, early career endocrinologists working in various clinics all over the country collected the data of hundreds of patients. Two senior early career endocrinologists wrote the manuscripts. Two multicentric studies have been published recently^{1,2} and a third one has been newly submitted.

Online activities in COVID

During the COVID-19 pandemic, SYET continued its activities through online programmes. With the support of Serpil Salman, a leading professor of diabetes, SYET organised a 2-day virtual Diabetes Technology Meeting, during which presentations and case discussions were led both by experts in the field and by early career colleagues.

Interviews with mentors sharing their experiences in the world of science also provided inspiring online events during the pandemic. Professor Bulent Yildiz answered questions on scientific writing during an interactive meeting.

Rare Disease Day in 2021 was an opportunity to organise an interview on lipodystrophy with two experts: Professors Baris Akinci and Elif Oral from the University of Michigan. They shared the fascinating story of leptin therapy and their research experiences abroad.

The pros and cons of being a PhD student in our country were discussed in another online event with Professor Neslihan Basçil Tutuncu, who shared her experiences during her PhD work at Ankara Baskent University.

Improving communication

SYET bridges a gap between early career endocrinologists and the Executive Committee of SEMT. Grants (meeting grants, research grants, etc.) awarded by SEMT have been revised and expanded following requests that came from early career members. Questionnaires prepared by SYET for early career colleagues guided the scientific programmes of conferences organised by SEMT.



Young endocrinologists' session during the 2022 National Congress in Adana, Turkey.



The Executive Committee of SEMT and SYET and early career endocrinologists at Endokurs 2022, an educational course in Adana, Turkey.

The sessions for young endocrinologists during the national congresses have provided us with experience and confidence. In 2022, for the first time, SYET organised a half-day face-to-face workshop during the congress. The main topics covered were: strategies for writing a scientific paper, tips for using technology effectively during scientific work, and international networking in science.

Mentoring

Some early career endocrinologists expressed a need for interaction with a mentor. As mentorship programmes have proved efficacious in many settings, we created a mentorship project.

The project has been approved by SEMT and was announced during an educational endocrinology meeting in October to start by January. We hope it motivates young colleagues and provides new perspectives for those looking for an experienced voice.

Growing ever stronger

SYET has kept growing and now has around 200 young members from all over the country. The SYET Executive Committee continues to work on new ideas to support early career endocrinologists. We are aware of the importance of networking and proud of our contribution to support science, which is the most rewarding part of being a member of the SYET community. We thank all members of SYET and the Executive Committee of SEMT and others who have tirelessly supported our work.

We look forward to meeting our colleagues from ESE and EYES during ECE 2023 in Istanbul.

Aysha Hacıoğlu, Adnan Batman, Emre Saygılı and Zafer Pekkolay
SYET Executive Committee

REFERENCES

1. Pekkolay et al. 2021. Archives of Osteoporosis 18:139 <https://doi.org/10.1007/s11657-021-01802-8>.

2. Koca Dağdelen et al. 2022. Calcified Tissue International 110:204-214 <https://doi.org/10.1007/s00223-021-00908-2>.

15

Welcome to Istanbul

It is a great pleasure to welcome ECE to Istanbul, Turkey, for the first time since 2009. We are very happy to host this great Congress again.

ECE 2023
13-16 May 2023
Istanbul, Turkey
www.es-e-hormones.org/ece2023

25th
CONGRESS

Abstract deadline:
23 January 2023

Super Early Bird registration:
20 March 2023

Early Bird registration:
18 April 2023

SOCIETY NEWS

Aysegül Atmaca
Local Organising Committee Chair,
ECE 2023
President, Society of Endocrinology
and Metabolism of Turkey

Istanbul, the largest city in Turkey, is a metropolis where Europe and Asia meet. Healthcare is accessible and quite advanced in Istanbul, with numerous hospitals owned by universities and public and private institutions serving domestic and international patients. Medical schools and government hospitals affiliated with universities provide training programmes in endocrinology.

Istanbul is the only city to sit on two continents, and the only one that served as a capital to two consecutive empires: Byzantine and Ottoman. It remains the commercial, financial, historical and cultural centre of Turkey, and its beauty lies in its ability to embrace its contradictions. Asia and Europe, ancient and modern, religious and secular, mystical and earthly, all co-exist in Istanbul. Here, you can recognise a modern western life combined with a traditional eastern life.

The serene beauty of the Bosphorus, Prince Islands and parks brings a touch of peace to the otherwise chaotic metropolis. The ancient mosques, palaces, museums and bazaars reflect its diverse history. Taksim district, the heart of the city, glimmers with life and entertainment.

With the Black Sea in the north, the Marmara Sea in the south and the Bosphorus running, in all its glory, through the middle of the city, you will witness the unique combination of the Mediterranean and Black-Sea climates. The city's biggest attraction is its historic peninsula, partially listed as a UNESCO World Heritage Site.

Istanbul was the European Capital of Culture in 2010.

Turkish cuisine encompasses countless different flavours. It has evolved over centuries, influenced by the rich history of lands that have hosted two empires. Istanbul showcases the most delicious

foods from different regions of the country.

The venue for ECE 2023, Halic Congress Center, lies in the centre of the city, on the shores of Golden Horn. It has hosted diverse events and is appreciated for its architecture, location, capacity, spacious halls and experience.

On behalf of the Turkish endocrinologists, we are delighted to welcome you for this great feast of endocrinology. We are planning social events to complement the

scientific programme, which will support networking between international endocrinologists and enable you to enjoy wonderful evenings in Istanbul.

Endocrinology in Turkey

In 1861, Dr Ahmet Ali presented a case of diabetes insipidus in *Gazette Médicale d'Orient* and discussed the differential diagnosis from diabetes mellitus with urinalysis. Professor Cemil Topuzlu presented publications to Sultan Abdülhamid, including a case series of seven thyroidectomies. From these beginnings, our discipline has grown. The first official society was established in 1964, subsequently becoming part of the modern Society of Endocrinology and Metabolism of Turkey (SEMT), which formed in 1995 and now has 815 members.

SEMT's aims are to support development of the field, encouraging networking and communication between members, as well as training, including an education programme and national board exam. The Society represents Turkey internationally and collaborates with other organisations. As well as holding a national congress and a postgraduate training course annually, SEMT organises a national thyroid congress every 2 years. Along with other international societies, SEMT supports EndoBridge, which takes place annually in Antalya. The Society's official journal is the *Turkish Journal of Endocrinology & Metabolism*.

Nine study groups within SEMT span adrenal and gonadal diseases, diabetes, pituitary, obesity-dyslipidaemia-hypertension, osteoporosis and other metabolic bone diseases, rare metabolic diseases, neuroendocrine tumours, medical nutrition and exercise metabolism, and the thyroid. These groups organise local meetings, publish clinical practice guidelines and collect national data from multicentre cohort studies. SEMT also has a group for early career colleagues.

View over the Bosphorus, Istanbul.

European Society of Endocrinology haberleşme dergisi olan Endocrine Views kış sayısında TEMD Başkanı ve Lokal Organizasyon Komitesi Başkanı Prof. Dr. Ayşegül Atmaca ve TEMD Erken Kariyer Endokrinologlar Grubu temsilcileri Dr. Öğretim Üyesi Ayşe Hacıoğlu, Doç. Dr.

Adnan Batman ve Doç. Dr. Emre Sedar Saygılı ve Doç. Dr. Zafer Pekkolay'ın ECE 2023 için yazdıkları yazılar yayınlandı. Dergiye <https://www.es-e-hormones.org/publications/endocrine-views-magazine/> linkinden ulaşabilirsiniz.

ÖZEL HASTANELER YÖNETMELİĞİ VE AYAKTA TEŞHİS VE TEDAVİ YAPILAN ÖZEL SAĞLIK KURULUŞLARI YÖNETMELİĞİ HAKKINDA BİLGİLENDİRME



Değerli Üyemiz,

06.10.2022 tarihinde “Özel Hastaneler Yönetmeliği ve Ayakta Teşhis ve Tedavi Yapılan Özel Sağlık Kuruluşları Yönetmeliği”nde yeniden değişiklik yapılmıştır. Yapılan değişiklik ile ilgili dernek avukatımızın bilgilendirmesi ve yönerge eki bilgilerinize sunulmaktadır.

“06.10.2022 tarihinde ekte paylaşılmış olan “Özel Hastaneler Yönetmeliği ve Ayakta Teşhis ve Tedavi Yapılan Özel Sağlık Kuruluşları Yönetmeliği”nde yeniden değişiklik yapılmıştır. Ancak ekte sunulan yapılan değişiklikle de muayenehanesi olan hekimleri zora sokacak ve mesleki faaliyetlerini çok büyük ölçüde kısıtlayacak, hastalarının da hekim seçme ve mahremiyetlerinin korunması haklarını ihlal edecek düzenlemelere yer verilmiştir.

İlgili Yönetmelik değişikliğinde yalnızca muayenehanesi olan hekimlerin hastalarının tedavisini yıllık sözleşme yapmak suretiyle ilgili branşta ruhsatı bulunan özel hastane veya tıp merkezinde yapabilecektir. Önceki düzenlemede yer alan özel hastane veya tıp merkezinde boş kadro olma şartı bu değişiklikle yer almamıştır.

Muayenehanesi olan 60 yaş üstü hekimler, sözleşme yaptığı hastanelerin birinde kadro sınırlamasına tabi tutulmayacaktır.

Sözleşme imzalanan hastanede muayenehaneden gelen hastaya öngörülen müdahalenin yapılmadığı durumlarda hekimin istediği başka bir hastanede bu işlemin yapılması için İl Sağlık Müdürlüğü tarafından vaka bazlı özel izin verilebilecektir.

Muayenehane hekimiyile yapılan sözleşmenin taraflarca imzalanmış nüshası, özel hastane tarafından SKYS’ye eklenecek ve müdürlüğe gönderilecektir. Önceki düzenlemede yer alan, hasta bilgilerinin (MBYS) üzerinden Bakanlıkça belirlenen form ile gönderileceğine ve aydınlatılmış onam formuna ilişkin kurallar bu yönetmelikte de devam etmektedir.

İlgili Yönetmelik kazanılmış haklara saygı ilkesine bağlı olarak değişiklik yapmış gibi gözükse de hekimler arasında ayırım yapmak suretiyle bu sefer de eşitlik ilkesini göz ardı etmiştir.

Av. Ece Sindel Öge

7 Ocak 2023 CUMARTESİ Resmi Gazete Sayı : 32066

YÖNETMELİK

Sağlık Bakanlığından:

AYAKTA TEŞHİS VE TEDAVİ YAPILAN ÖZEL SAĞLIK KURULUŞLARI HAKKINDA YÖNETMELİKTE DEĞİŞİKLİK YAPILMASINA DAİR YÖNETMELİK

MADDE 1- 15/2/2008 tarihli ve 26788 sayılı Resmi Gazete’de yayımlanan Ayakta Teşhis ve Tedavi Yapılan Özel Sağlık Kuruluşları Hakkında Yönetmeliğin ek 1 inci maddesinin on ikinci fıkrası aşağıdaki şekilde değiştirilmiştir.

“(12) Muayenehanesi bulunan hekimler, 1219 sayılı Kanunun 12 nci maddesinin üçüncü fıkrası gereğince hizmet bedeli hasta tarafından karşılanmak ve Sosyal Güvenlik Kurumundan talep edilmemek kaydıyla, muayenehanesine müracaat eden hastalarının tedavisini yıllık sözleşme yapmak suretiyle ilgili branşta ruhsatı bulunan tıp merkezlerinde yapabilir. Tıp merkezleri, ilgili branştaki toplam kadro sayısının üçte birini aşmayacak şekilde hekimle sözleşme yapabilir. Muayenehanesi bulunan 60 yaş üstü hekimler, sözleşme yaptığı tıp merkezlerinin birinde bu kadro sınırlamasına tabi tutulmaz. Sözleşme imzalanan tıp merkezinde muayenehaneden gelen hastaya öngörülen müdahalenin yapılmadığı durumlarda hekimin istediği başka bir tıp merkezinde bu işlemin yapılması için İl Sağlık Müdürlüğü tarafından vaka bazlı özel izin verilebilir. Muayenehane hekimiyile yapılan sözleşmenin taraflarca imzalanmış nüshası, tıp merkezi tarafından il sağlık müdürlüğüne gönderilir. Bu durumdaki hastalar, tıp merkezindeki tedavi masraflarının kendileri tarafından karşılanacağı hususu ile tıbbi müdahalenin konusu ve sonuçları hakkında muayenehanede bilgilendirilir ve hastanın bilgileri tedavi olacağı tıp merkezine, Muayene Bilgi Yönetim Sistemi (MBYS) üzerinden gönderilir. Hastaya sunulan teşhis ve tedavi hizmetlerinden muayenehane hekimiy ve tıp merkezi müştereken sorumludur. Tıp merkezinde gerçekleştirilecek ayakta veya yatarak tedavi öncesi muayenehane hastalarına ilişkin bilgilendirilmiş rıza formu hasta veya kanuni temsilcisi, muayenehane hekimiy, özel sağlık kuruluşunun ilgili birim sorumlusu ve mesul müdür tarafından imzalanır. Bu hekimlere hizmet sunan tıp merkezinin mesul müdürü her ay sonu itibarıyla tedavi edilen hasta sayısı ve hekim ismi ile rıza formunu müdürlüğe bildirir. Ayrıca bu şekilde tedavi gören hastalara ayrıntılı fatura düzenlenir.”

MADDE 2- Aynı Yönetmeliğe aşağıdaki geçici maddeler eklenmiştir.

“GEÇİCİ MADDE 16- (1) Bu maddenin yayımlandığı tarihten önce muayenehanesi bulunan hekimler, sözleşme yapacakları tıp merkezlerinin birinde ek 1 inci maddenin on ikinci fıkrasındaki kadro sınırlamasından muaf tutulur.

GEÇİCİ MADDE 17- (1) Bu Yönetmeliğin 10 uncu maddesinin birinci fıkrasının (c) bendi, 1/7/2022 tarihinden önce ön izin başvurusunda bulunup da henüz sonuçlanmamış, inceleme aşamasındaki başvurular hakkında uygulanmaz. Bu başvuruların ön izin işlemleri, başvuru tarihinde yürürlükte bulunan hüküm dikkate alınarak sonuçlandırılır.”

MADDE 3- Aynı Yönetmeliğin ekinde yer alan EK-6’nın 36 sıra numaralı satırında bulunan “ruhsatında ve/veya faaliyet izin belgesinde kayıtlı uzman hekim branşlarındaki kadro sayısının %15’ine kadar uzman hekimle sözleşme imzalayabilme hakkı 1 yıl süreyle durdurulur.” ibaresi yürürlükten kaldırılmıştır.

MADDE 4- Bu Yönetmelik yayımı tarihinde yürürlüğe girer.

MADDE 5- Bu Yönetmelik hükümlerini Sağlık Bakanı yürütür.

“ENDOCRINOLOGY RESEARCH AND PRACTICE”

Turkish Journal of Endocrinology and Metabolism ismiyle tanınan dergimiz, yayın hayatına "Endocrinology Research and Practice" ismiyle devam edecektir. Yayıncımız AVES'in önerileri doğrultusunda, dergimizin editör kurulu ile Türkiye Endokrinoloji ve Metabolizma Derneği Yönetim Kurulu, birçok isim tercihi arasından "Endocrinology Research and Practice" önerisini derginin yeni ismi olarak belirlemiştir.

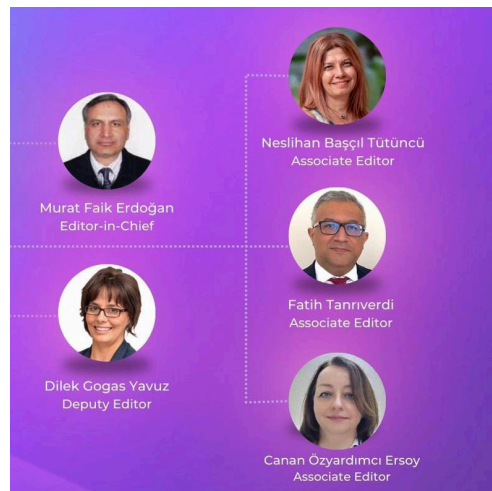
Derneğimizin resmi yayın organı olan dergimize destekleriyle bizleri yalnız bırakmayan yazar, hakem ve okurlarımıza teşekkür etmek istiyoruz. Sizler sayesinde dergimiz güçleniyor. Editör kurulumuz ve dergimizle alakalı sizlerle paylaşmak istediğimiz çok önemli değişiklikler var.

Baş editörümüz Prof. Dr. Nilgün Başkal'ın 14 yıl boyunca dergimize çok değerli katkıları oldu. Sorumluluk bilinci, özverisi ve koşulsuz desteğiyle dergiyi bugünlere getirdi. 2023 yılı itibarıyla ise görevini Prof. Dr. Murat Faik Erdoğan'a devrediyor.

Bununla birlikte sekiz yıldır yardımcı editör olarak dergimizde görev alan Prof. Dr. Hasan Altunbaş'a da veda ediyoruz. Yardımcı editörlerimizden Prof. Dr. Dilek Gogas Yavuz, yeni şef editörümüz oldu. Prof. Dr. Neslihan Başçıl Tütüncü editör yardımcısı olarak görevine devam ederken, Prof. Dr. Canan Ersoy ve Prof. Dr. Fatih Tanrıverdi yeni yardımcı editörlerimiz olarak göreve başlıyorlar.

Katkı ve desteklerinizle dergimizi daha ileri götürebileceğimiz, tüm araştırmacıların eşitlik ve barış ortamında çalıştığı güzel bir dönem diliyoruz.

Saygılarımızla
TEMD Yönetim Kurulu



ENDOCRINOLOGY RESEARCH AND PRACTICE dergisinde yayın yapmak için 5 neden;

1

Uluslararası ve ulusal önemli dizinlerde yer almaktadır.

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Makalelerinizin değerlendirilmesi ve yayınlanması ücretsizdir.

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4

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5

Türkiye Endokrinoloji ve Metabolizma Dernek üyelerine dergimizde basılmış orijinal araştırmalar için yayın desteği vermektedir.



ACIMIZ BÜYÜK

Depremde hayatını kaybeden vatandaşlarımıza

Allah'tan rahmet,yaralılarımıza acil şifalar diliyoruz.

Bölgede yaşayan tüm vatandaşlarımıza ve ülkemize geçmiş olsun.

Türkiye Endokrinoloji ve Metabolizma Derneği Yönetim Kurulu

Değerli Üyemiz,

Ülkemizde meydana gelen geniş kapsamlı ve yıkıcı deprem için ülkemize ve tüm üyelerimize geçmiş olsun dileklerimizi iletiyoruz.

Deprem bölgelerinde yaşayan, maddi manevi destek bekleyen üyelerimiz ve üyelerimizin yakınlarına yardımcı olabileceğimiz bir konu olması durumunda bilgi vermelerini rica ederiz.

Saygılarımızla

TEMĐ Yönetim Kurulu

Halen deprem bölgesinde veya deprem bölgesinden gelerek bir başka bölgede yaşayan vatandaşlarımıza yönelik olarak 7/24 açık olacak Diyabet ve Endokrin Hastalıklar acil danışma hattı.

*WhatsApp mesajı, SMS mesajı, direkt telefon için telefon numaralarımız **05424768478** ve **05424768481***



TEMĐ üyelerinin dikkatine

Türkiye Endokrinoloji ve Metabolizma Derneği olarak deprem bölgesindeki üyelerimize destek olmak amacıyla oluşturduğumuz icap listesi web sayfamızın **TEMĐ Üyeleri İçin** bölümünde yayınlanmıştır.



DEPREM ve SONRASI

6 Şubat 2023 sabahı depremin sarsıntısına uyandık içimiz titreyerek. Kahramanmaraş merkezli gerçekleşen deprem ardından ilk iş olarak bölgede yaşayan derneğimiz üyesi meslektaşlarımıza telefonla ulaşmaya çalıştık ve sağlık haberlerini aldık. Ancak bazı üyelerimizin yakınları enkaz altındaydı ve bu nedenle zaman da kısıtlı olduğu için tüm gücümüzle meslektaşlarımıza destek olmaya çalıştık. Online koordinasyon kurulu oluşturduk ve ekskavatörlere, kepçelere, dozerlere ulaşmaya uğraştık, onları enkaz alanlarına yönlendirdik. Sonuçta bazı meslektaşlarımız yakınlarına enkaz altından canlı olarak ulaştı, çok sevindik; bazılarımız sadece yakınlarının cansız bedenlerine ulaşabildi, derin bir sessizlik ve üzüntü kapladı içimizi. Enkaz altındaki yakınlarına en azından son görevi yapmış oldu cenazelerine ulaşanlar ve toprağa verdiler onları hüznle.

Bölgede pek çok malzemeye ihtiyaç vardı bebek, çocuk ve yetişkin için kişisel hijyenik malzemeleri, atkı, eldiven, bere, iç çamaşırı, termal kıyafetler ve kuru gıda satın alarak Ankara Büyükşehir Belediyesi tırları ile deprem bölgesine ulaştırdık. Ayrıca bölgeden şahsi olarak talepte bulunan üyelerimize istedikleri ihtiyaç listesini temin ederek gönderdik.

Daha sonra bölgede diyabet ve diğer endokrin hastalıklar nedeniyle mağduriyet yaşayan hastalara ulaşmaya başladık. Bu amaçla günlük icap listesi oluşturduk ve gerek bölgeden gelen hastalara ait sorunlara, gerekse konsültasyon amaçlı soru soran meslektaşlarımıza yardımcı olmaya başladık. Örneğin; ilaçları enkaz altında kalan otoimmün poliglandüler yetmezlik bulunan Malatyalı bir hastanın ilaçları için bölgede daha az hasarlı ve hayat akışının devam ettiği çevre ilçelerle temasa geçtik ve Arguvan'dan hastanın ilaçlarını temin ettik. Özellikle insülin temini konusunda sıkıntılar oldu ve Türkiye Diyabet Vakfı ve Türkiye Diyabet Cemiyeti ile diyabetli bireylerin insüline ulaşması konusunda işbirliği yaparak sorunların çözülmesini sağladık.

Diyabet, endokrinoloji ve metabolizma hastalıkları nedeniyle depremden etkilenen vatandaşlarımızın ve bölgede görev yapan doktorların ulaşabileceği acil danışma hattı kurduk ve sosyal medya üzerinden duyurduk. Bölgede hizmet veren sağlık kuruluşlarının acil servisleri ezilme sendromu vakaları nedeniyle felç durumda olduğu için, dahili yönden aciliyeti olan hastaları kabul etmiyorlardı ve bölgede çalışan doktorlar diyabetik acili olan hastaları nereye sevk edeceklerini bilemiyorlardı. Özellikle ciddi kan şekeri yüksekliği nedeniyle mağdur durumda olan hastaların yatışını koordine ettik ve hastaların bölgeye yakın, depremden etkilenmemiş hastanelerde aktif çalışan endokrin merkezlerine ulaştırılmasını ve yatırılarak tedavi edilmesini sağladık. Yine diyabetik ayak gibi ciddi sorunları olan hastaların hangi hastanelerde yatırılması gerektiğini organize ettik ve üyelerimizle hastaların buluşmasını sağladık. Deprem bölgesinde ikamet eden veya deprem bölgesinden gelerek yurdun çeşitli bölgelerine yerleşen ve bize deprem danışma hattından direkt telefon veya Whatsapp aracılığıyla ulaşarak talepte bulunan hastalara ilaç, insülin, glukometre, uyku apnesi cihazı, tansiyon aleti gibi tıbbi cihazların teminini sağladık. Ayrıca bölgeden gelen talepler doğrultusunda fenilketonüri, Çölyak hastalığı gibi metabolik hastalıkları olan bireyler için gerekli besinlerin sağlanması amacıyla Fenilketonüri Aile Derneği ve Çölyak Derneği ile temasa geçerek uygun besinlerin bölgeye sevkini ve ilgili kişilere ulaştırılmasını başardık.

Bölgede görev yapan üyelerimizin hastanelerinde kullanmaları için öncelikle Kahramanmaraş'a konteyner temin etmek istedik. Yoğun bürokratik işlemler sonrasında Kahramanmaraş'a konteyner göndermeyi başardık. Yakın zamanda da Hatay ve Malatya illeri için konteyner satın aldık ve her iki konteyneri da bölgedeki üyelerimize ulaştırdık.

Halen deprem bölgesinde çalışmakta olan meslektaşlarımızla temas halindeyiz. Hepsini birer kahraman gibi görevlerini yapıyorlar. Onlara şükran duyuyoruz ve başta bölgedeki üyelerimiz olmak üzere tüm ülkemize tekrar geçmiş olsun diyoruz.



Malatya'da Prof. Dr. Ibrahim Şahin ve Doç. Dr. Bahri Evren hocamızın çadır bölgesindeki çalışmalarından.



Uşak'ta, Kredi Yurtlar Kurumu Yurdu'nda Prof. Dr. Cevdet Duran hocamızın, deprem danışma hattımız aracılığı ile bize ulaşan diyabetik birey ile buluşması.



Deprem bölgesine gönderilen glukometreler ve ihtiyaç malzemeleri.



Deprem bölgesine gönderilen konteyner.

ULUSAL VE ULUSLARARASI BİLİMSEL KONGRE VE SEMPOZYUMLAR

- 4 - 7 Mayıs 2023
IOF-WCO-IOF-ESCEO, World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases – Virtual Congress
CCIB Congress Center, Barcelona, Spain
<https://virtual.wco-iof-esceo.org/>
- 12 - 13 Mayıs 2023
44. Türkiye Endokrinoloji ve Metabolizma Hastalıkları Kongresi
The Marmara Taksim, İstanbul
<http://www.temhk.org/>
- 13-16 Mayıs 2023
25th European Congress Of Endocrinology - ECE 2023, İstanbul
<https://www.eso-hormones.org/events-deadlines/european-congressof-endocrinology/ece-2023/>
- 15 – 18 Haziran 2023
ENDO 2023, Annual Meeting of the Endocrine Society, Chicago, IL
<https://www.endocrine.org/meetings-and-events/endo2023>
- 23 – 26 Haziran 2023
83rd ADA Scientific Sessions, San Diego, CA
<https://professional.diabetes.org/scientific-sessions>
- 2 – 6 Ekim 2023
59th Annual Meeting - European Association for the Study of the Diabetes, Hamburg, Germany
<https://www.easd.org/annual-meeting/easd-2023.html>
- 26-29 Ekim 2023
Mezuniyet Sonrası Eğitim Kursu - ENDOKURS 7
Crowne Plaza, Bursa
<https://www.temd.org.tr/kurslar/mezuniyet-sonrasi-egitim-kursu---endokurs-7>
- 2 - 3 Aralık 2023
Nadir Görülen Metabolizma Hastalıkları Sempozyumu, Diyarbakır
<https://file.temd.org.tr/Uploads/Publications/books/documents/20320231717.pdf>

ÜYELERİMİZDEN LİTERATÜR SEÇMELERİ

SERUM TSH, 25(OH) D AND PHOSPHORUS LEVELS PREDICT WEIGHT LOSS IN INDIVIDUALS WITH DIABETES/PREDIABETES AND MORBID OBESITY: A SINGLE-CENTER RETROSPECTIVE COHORT ANALYSIS

Kemal Ağbaht¹, Serhan Vahit Pişkinpaşa²

BMC Endocr Disord. 2022 Nov 18;22(1):282. doi: 10.1186/s12902-022-01202-4. PMID: 36401211 PMCID: PMC9673446 DOI: 10.1186/s12902-022-01202-4

Background: To evaluate the association of vitamin D and thyroid-stimulating hormone (TSH) with weight loss (WL) percentage (%) in patients with diabetes/prediabetes and Class II/III obesity.

Methods: A retrospective cohort study was designed. Data were collected from a database of a referral endocrinology clinic that is prospectively and systematically generated. After exclusion of unavailable cases, the study enrolled 285 patients (51 ± 11 years old, female/male = 208/77; diabetes/prediabetes = 159/126; no/on levothyroxine replacement = 176/109; Class II/III obesity = 184/101, respectively) who maintained euthyroidism and were followed up for ≥6 months. The data were analyzed to determine the predictors of WL%.

Results: Compared with baseline, in the median 22 months of follow-up, the whole study group lost 5.1% of their baseline body weight. As most obesity management trials define success as 'at least 10% of WL compared to baseline', we stratified the patients based on WL% extents. The distribution was as follow: Group 1 (n = 61) lost ≥10% body weight, Group 2 (n = 162) lost < 10% body weight, while Group 3 (n = 62) gained weight by the final visit. In groups 1 and 2 (weight losers), the serum thyroid stimulating hormone (TSH) and parathyroid hormone (PTH) levels decreased and the free thyroxine (fT4), calcium, phosphorus, and 25-hydroxyvitamin D (25(OH)D) levels increased. In Group 3 (weight gainers), these changes were not observed (except for an increase in calcium levels). Regression analysis revealed that the final visit TSH ($\beta = -0.14$, $p < 0.05$), 25(OH) D ($\beta = 0.15$, $p < 0.05$), and phosphorus ($\beta = 0.20$, $p < 0.05$) levels predicted WL%. However, if patients with autoimmune thyroiditis were excluded from the analysis, the decrease in TSH levels was not statistically significant.

Conclusions: Serum TSH, phosphorus, and 25(OH) D levels predict WL% in euthyroid patients with diabetes/prediabetes and morbid obesity. TSH predictivity seems to be a function of thyroid autoimmunity present with increased frequency in this cohort. Greater levels of phosphorus within the reference range and a sufficient vitamin D status are associated with a greater WL%.

THE NOVEL PREDICTOR OF METABOLIC RISK IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME: COULD IT BE THE VISCERAL ADIPOSITY INDEX?

M Apaydin, E D Kazan, S Beysel, A Sari, E Özgül, H Cengiz, T Demirci, M Yilmazer

Eur Rev Med Pharmacol Sci. 2022 Oct;26(19):7182-7187. doi: 10.26355/eurrev_202210_29907. PMID: 36263527 DOI: 10.26355/eurrev_202210_29907

Objective: Polycystic ovary syndrome (PCOS) is the most common endocrinological disorder in women of reproductive age, often accompanied by high androgen levels, irregular menstrual cycles and polycystic ovaries. In addition, patients with PCOS also present with an increase in abdominal adipose tissue and insulin resistance. Recently, the gender-specific mathematical formulation called visceral adiposity index (VAI) has been widely used in assessing cardiometabolic risk. This study aimed at comparing the VAI values of patients with PCOS, patients with idiopathic hirsutism (IH) and a control group.

Patients and methods: We obtained demographic data, laboratory results and anthropometric measurements of patients from the hospital database. We retrospectively grouped all cases included in the study as PCOS (n = 52), IH (n = 57) and control (n = 58) according to the diagnoses. We also took venous samples for hormone and biochemical tests in the early follicular phase of the menstrual cycle, at least 8-10 hours after fasting in the early morning hours. Finally, we evaluated the variables using SPSS 22.0 software (IBM Corp., Armonk, NY, USA).

Results: We included 167 female individuals in the study. Of these, 57 (34.1%) were diagnosed with IH, while 52 (31.1%) were diagnosed with PCOS. The control group comprised 58 (34.8%) healthy female individuals. The median age of the study group was 25 years [interquartile range (IQR) = 8 years]. The age, height, weight, body mass index (BMI) and waist circumference values of the groups were similar. We found that the VAI values among the groups were significantly different ($p = 0.028$). Post-hoc analysis determined that this was due to the difference between the group with PCOS and the control group. In addition, we found significantly high HOMA-IR, fasting insulin and androgen levels in the group with PCOS ($p < 0.001$).

Conclusions: After comparing data in groups with similar BMI levels, we found significantly high VAI values in patients with PCOS. The results reinforce the idea that VAI is a useful marker easily obtained in daily practice for assessing the cardiometabolic risk of patients with PCOS.

PRECISION DIAGNOSIS OF MATURITY-ONSET DIABETES OF THE YOUNG WITH NEXT-GENERATION SEQUENCING: FINDINGS FROM THE MODY-IST STUDY IN ADULT PATIENTS

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OMICS. 2022 Apr;26(4):218-235. doi: 10.1089/omi.2022.0006. Epub 2022 Mar 23. PMID: 35333605 DOI: 10.1089/omi.2022.0006

Maturity-onset diabetes of the young (MODY) is a highly heterogeneous group of monogenic and nonautoimmune diseases. Misdiagnosis of MODY is a widespread problem and about 5% of patients with type 2 diabetes mellitus and nearly 10% with type 1 diabetes mellitus may actually have MODY. Using next-generation DNA sequencing (NGS) to facilitate accurate diagnosis of MODY, this study investigated mutations in 13 MODY genes (*HNF4A*, *GCK*, *HNF1A*, *PDX1*, *HNF1B*, *NEUROD1*, *KLF11*, *CEL*, *PAX4*, *INS*, *BLK*, *ABCC8*, and *KCNJ11*). In addition, we comprehensively investigated the clinical phenotypic effects of the genetic variations identified. Fifty-one adult patients with suspected MODY and 64 healthy controls participated in the study. We identified 7 novel and 10 known missense mutations localized in *PDX1*, *HNF1B*, *KLF11*, *CEL*, *BLK*, and *ABCC8* genes in 29.4% of the patient sample. Importantly, we report several mutations that were classified as "deleterious" as well as those predicted as "benign." Notably, the *ABCC8* p.R1103Q, *ABCC8* p.V421I, *CEL* I336T, *CEL* p.N493H, *BLK* p.L503P, *HNF1B* p.S362P, and *PDX1* p.E69A mutations were identified for the first time as causative variants for MODY. More aggressive clinical features were observed in three patients with double- and triple-heterozygosity of *PDX1-KLF11* (p.E69A/p.S182R), *CEL-ABCC8-KCNJ11* (p.I336, p.G157R/p.R1103Q/p.A157A), and *HNF1B-KLF11* (p.S362P/p.P261L). Interestingly, the clinical effects of the *BLK* mutations appear to be exacerbated in the presence of obesity. In conclusion, NGS analyses of the adult patients with suspected MODY appear to be informative in a clinical context. These findings warrant further clinical diagnostic research and development in different world populations suffering from diabetes with genetic underpinnings.

VITAMIN B12, FOLIC ACID, VITAMIN D, IRON, FERRITIN, MAGNESIUM, AND HbA1c LEVELS IN PATIENTS WITH DIABETES MELLITUS AND DENTAL PROSTHESIS

S Ciftel, A Bilen, N D Yanikoglu, F Mercantepe, R Dayanan, E Ciftel, I Capoglu, K Kasali, H Bilen

Eur Rev Med Pharmacol Sci. 2022 Oct;26(19):7135-7144. doi: 10.26355/eurrev_202210_29899. PMID: 36263561 DOI: 10.26355/eurrev_202210_29899

Objective: Diabetic patients may have vitamin deficiencies, which are important in the follow-up and complications of diabetes for various reasons. It may be beneficial to include the use of dental prosthesis among the parameters that should be investigated as a cause of vitamin deficiency during the management and follow-up of diabetes mellitus. We aimed to investigate the association between serum vitamin B12, folic acid, 25-hydroxyvitamin D, ferritin, iron, magnesium, and HbA1c levels in diabetic patients with and without removable dental prosthesis and in non-diabetic patients with prosthesis.

Patients and methods: This study is a single-center case-control study. Participants were classified into the following groups: 1) Diabetic patients (n = 528) with prosthesis, 2) non-diabetic patients with prosthesis (n = 121) and 3) diabetic patients without prosthesis (n = 100). Vitamin B12, 25-hydroxyvitamin D, folic acid, ferritin, iron, magnesium, and HbA1c levels were measured and compared across the groups.

Results: A significant difference was observed between the groups with respect to the above parameters. Vitamin B12 levels were determined to be higher in the diabetic group without prosthesis. 25-hydroxyvitamin D levels were found to be significantly higher in the non-diabetic group with a prosthesis than in the other two groups. There was no statistical difference in the iron levels between the groups. Ferritin levels were observed to be significantly higher in the diabetic group with prosthesis compared to the other two groups. Magnesium levels were significantly different between all the three groups. The highest magnesium levels were found in the non-diabetic group with prosthesis. HbA1c levels were found to be higher in the diabetic group with prosthesis. Magnesium levels were correlated with 25-hydroxyvitamin D levels, but a negative correlation was observed between these and HbA1c.

Conclusions: Serum vitamin B12 levels were lower in the diabetic and non-diabetic groups with prosthesis compared to the diabetic group without prosthesis. 25-hydroxyvitamin D levels were lower and ferritin was higher in the diabetic groups with and without prosthesis. Magnesium levels were significantly lower in the diabetic group with a prosthesis than in the other two groups. The mean HbA1c level was higher in the diabetic group with prosthesis. The comparison of diabetic patients receiving metformin revealed a higher pronounced vitamin B12 deficiency in the diabetic group with prosthesis. These findings show that those diabetic patients with prosthesis should be evaluated for vitamin B12, 25-hydroxyvitamin D, and magnesium deficiency.

INVESTIGATION ON THE PREVALENCE OF THYROID CANCER IN GRAVES' PATIENTS IN NORTHEASTERN PART OF TURKEY: IS SURGERY A BETTER OPTION FOR PATIENTS WITH GRAVES' DISEASE WHO DEVELOP ANTITHYROID DRUG-RELATED MAJOR ADVERSE EVENTS?

R Dayanan, A Bilen, T Demirci, S Ciftel, E Ciftel, F Mercantepe, E Onalan, I Capoglu, H Bilen

Eur Rev Med Pharmacol Sci. 2022 May;26(10):3562-3569. doi: 10.26355/eurrev_202205_28851. PMID: 35647837 DOI: 10.26355/eurrev_202205_28851

Objective: To determine the prevalence of thyroid cancer in Graves' patients who underwent surgical intervention with and without a history of anti-thyroid drug related major adverse events.

Patients and methods: The data of 530 patients with Graves' disease between 2015 and 2020 were retrospectively reviewed. Preoperative ultrasonography reports and thyroid-stimulating hormone receptor antibody values and postoperative histopathological findings were available for 94 patients that had undergone total thyroidectomy procedure. We compared the prevalence of thyroid cancer between patients with and without a history of anti-thyroid drug related major adverse events.

Results: Thyroid cancer was detected in 31 of 94 patients that had undergone total thyroidectomy. Of these patients, 18 had at least one nodule; however, thyroid cancer was incidentally detected in 13 patients without nodule. The 31 patients had the following cancer subtypes: 22 had papillary microcarcinoma, 8 papillary carcinoma and 1 noninvasive follicular thyroid neoplasm with papillary-like nuclear features. While thyroid cancer was present in half of the patients operated owing to anti-thyroid drug-related major adverse event, it was detected in 30% of the patients operated due to other reasons.

Conclusions: In the present study, the prevalence of thyroid cancer among patients with Graves' disease was found to be much higher than those of other studies in the literature, suggesting that surgery can be considered primarily for the treatment of Graves' disease. Considering the surgical option in the first plan instead of radioactive iodine therapy appears to be reasonable in patients who develop anti-thyroid drug-related major adverse events.

PREDICTORS OF HYPOTHYROIDISM FOLLOWING EMPIRICAL DOSE RADIOIODINE IN TOXIC THYROID NODULES: REAL-LIFE EXPERIENCE

Busra Kuyumcu Demir¹, Ersen Karakilic², Emre Sedar Saygili³, Nilgun Araci⁴, Semra Ozdemir⁵

Endocr Pract. 2022 Aug;28(8):749-753. doi: 10.1016/j.eprac.2022.05.001. Epub 2022 May 7. PMID: 35537668 DOI: 10.1016/j.eprac.2022.05.001

Objective: We aimed to determine the factors predicting hypothyroidism after radioactive iodine (RAI) treatment in patients with toxic adenoma and toxic multinodular goiter.

Methods: We retrospectively collected the data of 237 patients with toxic multinodular goiter or toxic adenoma who had consecutively received RAI treatment between 2014 and 2020 at 2 medical centers. Patients who received the second RAI treatment and whose medical records could not be accessed were excluded from the study. Finally, 133 patients were included in the study. RAI was administered at an empirical dose of 15 or 20 mCi.

Results: The median age of the 133 participants was 69 years (interquartile range, 62-75 years), and 64.7% of the participants were women. A total of 42.1% of the patients had toxic adenoma, whereas 57.9% of patients had toxic multinodular goiter. The median follow-up was 24 months (interquartile range, 11-38 months). During the follow-up, 61.7% of patients became euthyroid, 30.8% developed hypothyroidism, and 7.5% remained hyperthyroid. The median month of hypothyroidism onset was 4 months (interquartile range, 2-9 months). Regression analysis revealed 2 factors that could predict hypothyroidism: thyroid-stimulating hormone (odds ratio, 2.548; 95% CI, 1.042-6.231; P = .04) and thyroid volume (odds ratio, 0.930; 95% CI, 0.885-0.978; P = .005).

Conclusion: Overall, 30.8% of the cases developed hypothyroidism after the RAI treatment. Approximately 78% of hypothyroidism developed within the first 10 months. The risk of hypothyroidism was higher in patients with higher thyroid-stimulating hormone and smaller thyroid volume.

THE LATERALIZATION ACCURACY OF INFERIOR PETROSAL SINUS SAMPLING IN CUSHING'S DISEASE: EXPERIENCES OF A TERTIARY CENTER

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Background: The purpose of this study is to determine the accuracy of bilateral inferior petrosal sinus sampling (IPSS) in lateralization and to investigate variables associated with accurate IPSS lateralization prediction.

Methods: Initially, data from 55 patients who underwent IPSS in our institution were reviewed retrospectively. IPSS lateralization and pituitary magnetic resonance imaging (MRI) results of these patients were compared with postoperative follow-up and immunohistochemical data to calculate the positive predictive values (PPVs) for IPSS and MRI. Variables likely to be associated with the accurate prediction of IPSS lateralization were analyzed.

Results: Twenty-seven patients (85.2% female, mean age of 38.5 ± 13.1 years) were enrolled in the study. With IPSS, interpetrosal ratios were found to be ≥ 1.4 in 26 (96.2%) cases, and this ratio correctly predicted adenoma localization for 18 patients (PPV: 69.2%). For 16 (59.2%) patients, right lateralization was detected, while left lateralization was detected for 10 (37%) patients. Right-sided IPSS lateralization was associated with enhanced accuracy (p = 0.026). No masses were detected in the MRI images of 10 (37%) patients, while microadenoma of ≤ 6 mm was detected for 17 (63%) patients. MRI results (when positive) correctly identified adenoma localization for 14 of the patients with lateralization accuracy higher than that of IPSS (PPV: 82.3% vs. 69.2%).

Discussion: IPSS is a valuable procedure in detecting tumor lateralization, especially in patients with Cushing's disease who have negative pituitary MRI results. However, since lateralization has a limited reliability, the pituitary gland should be comprehensively evaluated by taking into account the MRI findings (if positive) as well as data on the side of IPSS lateralization.

LIPODYSTROPHY FREQUENCY ACCORDING TO INSULIN TREATMENT REGIMEN IN TYPE 2 DIABETIC PATIENTS: IS INSULIN INJECTION FREQUENCY MATTERS IN ANALOG INSULIN ERA?

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Objectives: We aimed to determine lipodystrophy frequency according to insulin treatment regimen and insulin injection frequency in type 2 diabetic patients.

Methods: A total of 345 type 2 diabetic patients under insulin treatment for at least one year were included in this cross-sectional study. Patients were examined for presence of lipodystrophy, insulin injection frequency and dosage. Lipodystrophy was evaluated with visual inspection and palpation of all injection sites. Patients were evaluated into three categories according to daily insulin dose requirement: Group 1= Standard-dose insulin users 0.6 U/kg/day; Group 2= Medium-dose insulin users 0.61-1.9 U/kg/day, Group 3= High-dose insulin users ≥2 U/kg/day.

Results: Lipodystrophy was seen in 28% of the patients. Lipodystrophy was significantly higher in group 3. There was no significant difference between the groups in terms of lipodystrophy size. Duration of insulin treatment, daily total insulin dose, daily insulin dose per weight and number of daily insulin injections were significantly higher in the group with lipodystrophy. Daily injection number of long-acting, rapidly-acting analog and total insulin injections were significantly higher in group 3 than group 1 and 2. Number of daily insulin injections and lipodystrophy frequency were significantly higher in basal-bolus insulin user group. Multivariate analysis showed that insulin injection frequency is the independent risk factor for lipodystrophy.

Conclusion: Lipodystrophy is still a clinical problem in patients with high-dose insulin requirement and frequent insulin injections. Reducing daily insulin requirement and daily number of injections should be given priority in the management of patients to prevent the development of lipodystrophy.

ACROMEGALY MIGHT NOT NEGATIVELY AFFECT MICROVASCULAR CIRCULATION

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Background: Endothelial dysfunction and atherosclerosis are well known complications of acromegaly. However, current data on microvascular circulation are limited.

Aims: To evaluate microvascular circulation in patients with acromegaly.

Methods: This comparative study included a total of 21 patients with acromegaly and 20 age- and sex-matched healthy subjects. A stereomicroscope under $\times 100$ magnification was used by a single rheumatologist to evaluate the capillary dimensions (capillary loop length, capillary width) and capillary/mm count in the capillaries of subjects. Statistical data analysis was conducted using the SPSS 15.0 package program.

Results: The mean number of capillaries per millilitre (normal $\geq 8/\text{mL}$) in the acromegaly group (AG) and healthy controls (HC) was 7.67 ± 1.88 and 8.67 ± 0.65 , respectively ($P = 0.04$). In the AG and the HC, the number of tortuous capillaries, the mean capillary loop length and the mean capillary width were not different. Although the median number of capillaries in the AG was lower than in the HC, it was still within normal limits.

Conclusion: Although the number of capillaries was statistically lower in patients with acromegaly, they were within a normal range and the difference was not clinically significant. Moreover, there was no difference in morphological characteristics between the groups. While endothelial dysfunction is the earliest known marker of the atherosclerotic process and is considered to be one of the complications of acromegaly, the disease may not result in impairment of microvasculature of those people afflicted by it.

DO NEUROSTEROIDS HAVE IMPACT ON DEPRESSION AND COGNITIVE FUNCTIONS IN CASES WITH ACROMEGALY?

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Objective: Neurosteroids (NSs) are a distinct hormone group and, they are known for their contribution into the status of mood and cognitive functions. Whether they are also involved in the mood disturbances and cognition in acromegaly is not known. Herein we aimed to evaluate the relation of mood status and cognitive functions with the NS levels in cases with acromegaly.

Design: A total of 33 cases with acromegaly composed the acromegaly group (AG) and, 30 age and gender-matched cases without acromegaly composed the control group (CG). The levels of Allopregnanolone (AP), pregnenolone (PRG), 24S-hydroxycholesterol (24OHC), dehydroepiandrosterone (DHEA), dehydroepiandrosterone sulfate (DHEAS), androsterone (ADT), GH and IGF-1 were measured in each

group. Beck Depression Inventory (BDI) was used to assess depressive symptoms, whereas an extensive neuropsychological assessment with several neurocognitive tests were carried out for each subject by an experienced psychologist.

Results: Cases with acromegaly had lower 24OHC and DHEA levels ($p = 0.002$ and $p = 0.007$, respectively) in comparison to CG. Of the cognitive functions time to complete 1 s Series was significantly higher and, the scores on Switching Verbal Fluency Test, Boston Naming Test (BNT)-semantic and BNT-phonological, the highest learning point of Oktem Verbal Memory Processes Test (VMPT) were significantly lower in cases with acromegaly in comparison to those in controls ($p = 0.004$, $p = 0.01$, $p < 0.001$, $p = 0.02$ and $p = 0.05$, respectively). KAS-perseveration errors were higher in CG ($p = 0.03$). In AG the levels of AP were negatively correlated with the scores on Months backward Test (MBT), Animal Naming Test, Construction, BNT-spontaneous and positively correlated with BNT-incorrect answers; PRG was positively correlated with VMPT-retention scores, ADT was negatively correlated with MBT and 3 s Series scores, DHEAS was positively correlated with VMPT-the highest learning point whereas it was negatively correlated with MBT scores. Additionally, the scores on BDI were positively correlated with DHEA levels in AG.

Conclusion: Cognitive changes may be encountered in acromegaly and, neurosteroids may contribute to the changes in certain cognitive functions.

COMPARISON OF PLASMA AND SALIVARY METEORIN-LIKE PROTEIN LEVELS IN PATIENTS WITH NEWLY DIAGNOSED TYPE-2 DIABETES AND TREATED WITH METFORMIN

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Objective: The present study compares the plasma and salivary Meteorin levels of patients newly diagnosed with type-2 diabetes who were treated with metformin for three months with those of a healthy volunteer group and immunohistochemically analyzes Meteorin in salivary glands.

Patients and methods: 30 healthy volunteers and 30 newly diagnosed type-2 diabetes patients were included in the study. The newly diagnosed diabetes patients were treated with metformin for three months, and the plasma and salivary metformin levels of both groups were measured at baseline and after the three months of metformin treatment in the patient group. Plasma HbA1c, low-density lipoprotein (LDL-C) and Triglyceride (TG) values of all groups were also measured at baseline following three months of metformin treatment. Biopsies were taken from the parotid and submandibular glands and immunohistochemical staining was performed to show Meteorin immunoreactivity.

Results: Plasma Meteorin, HbA1c, LDL-C and TG levels were higher in the newly diagnosed diabetes group than in the other group, and salivary Meteorin levels were higher than in the control group after three months of metformin treatment. An examination of the immunohistochemical staining of salivary gland biopsies under light microscope revealed Meteorin immunoreactivity in the intralobular and interlobular ducts of the parotid gland, while Meteorin immunoreactivity was observed in the acinar cells in the intralobular striated duct and interlobular ducts in the submandibular gland.

Conclusions: Plasma Metrn1, HbA1c, LDL-C and TG levels were higher in the newly diagnosed diabetes group than in the other group. Metrn1 immunoreactivity was detected in the parotid and submandibular glands. The relationship between Metrn1 and DM should be investigated in larger groups.

IS THERE ANY CORRELATION BETWEEN BASELINE SERUM CORTISOL LEVELS AND DISEASE SEVERITY IN PCR-POSITIVE COVID-19 PATIENTS WITH AND WITHOUT DIABETES MELLITUS?

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Vaccines (Basel). 2022 Aug 20;10(8):1361. doi: 10.3390/vaccines10081361. PMID: 36016249 PMCID: PMC9416748 DOI: 10.3390/vaccines10081361

Background: COVID-19 has caused a pandemic and is associated with significant mortality. The pathophysiology of COVID-19, affecting many organs and systems, is still being investigated. The hypothalamus, pituitary gland, and possibly adrenal glands are the targets of SARS-CoV-2 because of its angiotensin-converting enzyme 2 (ACE2) and transmembrane serine protease 2 (TMPRSS2) receptors expression. Hypocortisolemia can be seen in the postinfection period. COVID-19 infection tends to be severe in diabetic patients due to immune dysfunction. In this study, our aim was to investigate the relationship between basal cortisol levels and the course of COVID-19 infection in diabetic and non-diabetic patients. **Methods:** Our retrospective study included 311 PCR-positive COVID-19 patients over the age of 18 who were hospitalized in Ankara City Hospital Infectious Diseases Department or Intensive Care Unit (ICU) between 15 March 2020 and 15 May 2020. Serum basal cortisol, fasting plasma glucose (FPG), HbA1c values, and diabetes history were recorded within the first 24 h of hospitalization. The presence of pulmonary involvement was noted from the patients' imaging records. Pregnant and breastfeeding women, patients with chronic liver disease or chronic kidney disease, and patients who were already using steroids or had started COVID-19 infection treatment within the 72 h before blood collection were excluded from the study. **Results:** Of the 311 patients, 100 had Type 2 Diabetes Mellitus (T2D), while 211 did not. The age, serum basal cortisol, and glucose levels of the patients with T2D (64.51 ± 12.29 , 19.5 ± 13.12 , and 143.5 (77–345)) were higher than those of the patients without T2D (46.67 ± 16.38 , 15.26 ± 8.75 , and 96 (65–202)), and the differences were statistically significant ($p = 0.004$, $p = 0.004$, and $p < 0.001$, respectively). The basal cortisol values of the ICU patients (27.89 (13.91–75)) were significantly higher than those of the ward patients (13.68 (1.48–51.93)) and patients who were transferred to the ICU from the ward due to worsening conditions (19.28 (7.74–55.21)) ($p < 0.001$ and $p = 0.007$, respectively). The factors affecting ICU admission were determined to be age, T2D history, basal cortisol, and elevation in FPG using univariate logistic regression analysis. In the multiple logistic regression analysis, age, basal cortisol level, and infiltrative involvement in thorax CT were determined to be the risk factors affecting intensive care admission. **Conclusion:** High basal cortisol levels in patients with T2D may predict the severity of COVID-19 infection or mortality. Although high basal cortisol levels are among the risk factors affecting ICU admission, patients with COVID-19 should also be evaluated in terms of clinical and laboratory findings and relative adrenal insufficiency.

ARE NEUTROPHIL-TO-LYMPHOCYTE RATIOS AND LARGE UNSTAINED CELLS DIFFERENT IN HOSPITALIZED COVID-19 PCR-POSITIVE PATIENTS WITH AND WITHOUT DIABETES MELLITUS?

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Objective: SARS-CoV-2 might present with multisystem involvement due to its entry into many cells with ACE2 receptors on their surfaces, such as heart, endothelial, and lung alveoli cells. Studies have indicated that COVID-19 infection causes a severe clinical presentation in diabetic patients due to dysregulation of the metabolic and immune systems. The hematological effects of COVID-19 and the relationship of lymphopenia with the severity of the disease have been reported previously. The parameter of percentage of large unstained cells (LUCs) reflects active lymphocytes and peroxidase-negative cells. The neutrophil-to-lymphocyte ratio (NLR) is another reliable marker of inflammation in cases of cardiac diseases, solid tumors, and sepsis. The present study aimed to evaluate whether the parameters of LUCs and NLR differed between diabetic and nondiabetic individuals with COVID-19. Associations with disease severity were also sought.

Materials and methods: In our retrospective study, the data of 1,053 patients [230 diabetic patients (21.83%) and 823 nondiabetic patients (78.15%)] were reviewed. The white blood cell (WBC) count, neutrophil count, neutrophil%, lymphocyte count, lymphocyte%, LUC count, %LUCs, NLR, platelet count, hemoglobin level, HbA1c, history of diabetes, surveillance during hospitalization, and pulmonary infiltration status within the first 24 hours after admission to the hospital were analyzed from the records.

Results: When diabetic patients were compared with nondiabetics, the age [65 (20-90) vs. 42 (18-94) years], WBC count [6.72 (2.6-24.04) vs. 5.91 (1.35-52.68)], neutrophil count [4.29 (1.28-65) vs. 3.68 (0.02-50.47)], neutrophil% [67.53 ± 12.3 vs. 64.08 ± 13.28], NLR [3.35 (0.83-38.11) vs. 2.48 (0.01-68.58)], and LUC count [0.11 (0.03-0.98) vs. 0.1 (0.02-3.06)] of the diabetic group were found to be higher and these differences were statistically significant ($p < 0.001$, $p < 0.001$, $p < 0.001$, $p < 0.001$, $p < 0.001$, and $p = 0.015$, respectively).

Conclusions: We determined that LUC counts and NLR values in COVID-19-positive patients with diabetes were statistically significantly higher compared to nondiabetic patients.

INCREASED OXIDATIVE AND CHROMOSOMAL DNA DAMAGE IN PATIENTS WITH ANKYLOSING SPONDYLITIS: ITS ROLE IN PATHOGENESIS

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Increased DNA damage has been suggested to contribute to the pathogenesis of chronic inflammatory diseases, but controlled studies are lacking in ankylosing spondylitis (AS). Therefore, we assessed oxidative stress, oxidative DNA damage, chromosomal DNA damage, cell proliferation and cell death in the peripheral blood lymphocytes of patients with AS as well as the possible role of DNA damage in the development of the disease. In total, 25 newly diagnosed AS patients who had not received anti-inflammatory agents and 25 healthy controls were recruited. Oxidative DNA damage was assessed by plasma 8-hydroxy-2'-deoxyguanosine (8-OHdG) levels, and chromosomal DNA damage was assessed by the cytokinesis-block micronucleus cytome (CBMN-cyt) method. Compared to controls, the micronucleus (MN) frequencies, nucleoplasmic bridge (NPB) frequencies, nuclear bud (NBUD) frequencies, apoptotic cell frequencies, necrotic cell frequencies and plasma 8-OHdG levels were significantly higher in patients with AS ($p < 0.001$, $p < 0.05$, $p < 0.01$, $p < 0.001$, $p < 0.001$, and $p < 0.001$, respectively), and the metaphase cell numbers, binucleated (BN) cell frequencies and nuclear division index (NDI) values were significantly lower in patients with AS ($p < 0.01$, $p < 0.001$ and $p < 0.001$, respectively). Thus, the present findings suggested that oxidative stress, oxidative DNA damage, and chromosomal DNA damage may be involved in the pathogenesis of AS similar to other chronic inflammatory diseases. In addition, the increased plasma 8-OHdG levels, MN frequencies, NPB frequencies and NBUD frequencies in AS patients may reflect an increased cancer risk.

RELATIONSHIP BETWEEN SERUM ENDOCAN LEVELS AND OTHER PREDICTORS OF ENDOTHELIAL DYSFUNCTION IN OBESE WOMEN

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Endocan, or endothelial cell-specific molecule-1 (ESM-1), is a potential inflammatory marker implicated in endothelial dysfunction. The purpose of this study was to determine the correlation between serum endocan levels and the presence and severity of endothelial dysfunction, and the relationships with serum intracellular adhesion molecule-1 (ICAM-1), adiponectin (a marker of inflammation), high sensitivity C-reactive protein (hsCRP) levels, and carotid intima-media thickness (cIMT) in obese subjects. Serum endocan, ICAM-1, adiponectin, hsCRP levels, and cIMT were evaluated in 76 obese women (BMI > 30 kg/m²) and 53 controls (BMI < 25 kg/m²). ICAM-1 ($P = .01$), hs-CRP ($p < 0.001$), and cIMT ($p < .001$) were significantly higher, while adiponectin ($P = .006$) was significantly lower,

in obese women compared with the controls. Serum endocan levels were similar between the obese (470.5 ± 171.3 pg/mL) and controls (471.9 ± 146.3 pg/mL) ($P = .732$). There was no correlation between serum endocan values and the endothelial dysfunction markers, hsCRP ($r = -.021$), ICAM-1 ($r = -.054$), adiponectin ($r = .113$), or cIMT ($r = -.060$) in obesity. Endocan is not a suitable marker of endothelial dysfunction in the context of obesity. More research is required to evaluate the role of endocan in the regulation of inflammatory processes in obesity.

FREQUENCY OF HYPEROSTOSIS FRONTALIS INTERNA IN PATIENTS WITH ACTIVE ACROMEGALY: IS THERE A POSSIBLE ROLE OF GH EXCESS OR HYPERPROLACTINEMIA IN ITS ETIOPATHOGENESIS?

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Purpose: Acromegaly is characterized by bone changes due to excessive growth hormone (GH) secretion. Hyperostosis frontalis interna (HFI) is described as an overgrowth in the inner plate of the frontal bone. An increased incidence of HFI has been reported in patients with acromegaly. Since the etiology of HFI is poorly understood, we have analyzed whether there is a relationship between the hormonal and metabolic status of patients with acromegaly (with or without hyperprolactinemia) and the pathogenesis of HFI.

Methods: Forty-five patients with acromegaly and two control groups consisting of 25 patients with prolactinoma (group 1) and 47 healthy subjects (group 2) were included in this retrospective study. Baseline hormonal data and cranial imaging were obtained from medical records and analyzed.

Results: Mean frontal bone thickness was 6.75 mm in acromegaly, 4.85 mm in group 1, and 5.1 mm in group 2 of controls ($p < 0.001$). The frequency of HFI was higher in acromegalic patients than in the controls (22%, 0%, and 2.2%, respectively). There was no difference between the HFI positive and negative acromegalic patients in basal GH, IGF-1, and PRL levels, IGF-1 index, diagnosis lag time, and insulin resistance. There was no difference between groups regarding parietal and occipital bone thickness.

Conclusion: Although the frequency of HFI is 22% in patients with acromegaly, neither excess GH nor hyperprolactinemia plays a role in its etiopathogenesis. Various genetic or epigenetic factors may contribute to its etiology.

NEUROPROTECTIVE EFFECTS OF VACCINIUM MYRTILLUS ON DAMAGE-RELATED BRAIN INJURY

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Traumatic brain injury may trigger the secondary brain injury, which has the potential to be reversible and thus preventable. Anthocyanins are phytotherapeutic plants, which are reported to exhibit anti-inflammatory properties. This study aimed to evaluate the therapeutic efficiency of an anthocyanin, namely Vaccinium myrtillus, to alleviate secondary brain injury and identify possible mechanism of actions. It is hypothesized that lipid peroxidation and Na⁺-K⁺-ATPase activity may be involved in neuronal ischemia. Thus, brain tissue Malondialdehyde content, Na⁺-K⁺-ATPase content, and cleaved caspase-3 content was investigated following moderate head trauma in a rat model. Twenty-four Sprague-Dawley male rats were allocated into four groups: Control, Trauma, Solvent-Control, and Treatment. Trauma and Solvent-Control groups showed more prominent brain edema, neuronal ischemia, vascular congestion, increase in brain tissue Malondialdehyde and cleaved caspase-3 levels, and decreased Na⁺-K⁺-ATPase activity compared to the Control group. Although the Treatment group had comparable histological signs to the Trauma and Solvent-Control groups, Malondialdehyde level and Na⁺-K⁺-ATPase activity was similar to Control group, and cleaved caspase-3 levels were lower compared to Trauma and Solvent-Control groups. We conclude that anthocyanin extracts may alleviate secondary brain injury via anti-oxidative and anti-apoptotic mechanisms.

IMPACT OF GESTATIONAL WEIGHT GAIN ON MATERNAL AND PERINATAL OUTCOMES AFTER LAPAROSCOPIC SLEEVE GASTRECTOMY

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Purpose: This study aimed to evaluate the impact of gestational weight gain (GWG) after laparoscopic sleeve gastrectomy (LSG) on maternal and perinatal outcomes according to the Institute of Medicine (IOM) recommendations.

Materials and methods: A retrospective, multicenter, observational study of pregnant women who had undergone LSG between 2012 and 2021 was conducted. According to the IOM criteria, GWG was grouped as insufficient, appropriate, and excessive.

Results: A total of 119 pregnancies were included in this study. GWG was appropriate in 28 (23.5%), insufficient in 32 (26.9%), and excessive in 59 (49.6%) of the cases. The time from operation to conception was significantly longer in the excessive group than in the insufficient (P = 0.000) and appropriate groups (P = 0.01). The mean GWG was significantly higher in the excessive group than in the appropriate (P = 0.000) and insufficient groups (P = 0.000). When the groups were evaluated

according to the IOM recommendations, no statistically significant difference were found between the groups regarding birthweight, gestational age (GA), preterm birth, and whether their child was small or large for their gestational age. Furthermore, there were no differences in terms of anemia and ferritin deficiency level at early pregnancy and predelivery between the groups.

Conclusion: The GWG after LSG did not impact maternal and perinatal outcomes.

EFFECT OF RADIOIODINE THERAPY ON THYROID NODULE SIZE AND FUNCTION IN PATIENTS WITH TOXIC ADENOMAS

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Nucl Med Commun. 2004 Nov;25(11):1083-7. doi: 10.1097/00006231-200411000-00003. PMID: 15577585 DOI: 10.1097/00006231-200411000-00003

Background: Autonomously functioning toxic adenomas are a common cause of hyperthyroidism. Although 131I seems to be a good therapeutic option with little postablative hypothyroidism for these patients, only a small number of recent studies have objectively evaluated changes in nodule size by ultrasonography following radioiodine therapy.

Methods: We prospectively followed 39 patients with a mean age of 51.2 (35-75) years for 12 months and the patients who remained toxic thereafter, until euthyroidism was provided. Thyroid function tests, sonographic volumes were determined initially and 3, 6 and 12 months after treatment. Radioiodine doses of 3.7 MBq.g(-1) thyroid tissue corrected to a 100% 24 h 131I uptake were given. Thirty patients received a single dose, two required two doses and three required three to five doses of 131I due to persistent thyrotoxicosis. Sonographic volumes of the diffuse parts of the glands decreased significantly by 18% from a mean+/-SD value of 50+/-27.6 ml to 41+/-27.4 ml by the end of the 12 months. A significant decrease (8.3%, P=0.002) was achieved in the first three months. Toxic adenomas decreased in size more efficiently (54%) from a mean of 26+/-24 ml to 12+/-10 ml during 12 months, but also most significantly (28.8%, P=0.003) in the first 3 months of the follow-up. Thirty of the patients (76.9%) became euthyroid at the end of 12 months of follow-up. Four patients (10.3%) became overtly hypothyroid during the follow-up.

Conclusion: Single or multiple doses of radioiodine can successfully treat toxic adenomas with a low rate of hypothyroidism and considerable nodule-volume reduction.

CELLULAR IMMUNITY IN SUBACUTE THYROIDITIS: A NEW PERSPECTIVE THROUGH NEOPTERIN

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Subacute thyroiditis (SAT) is an inflammatory disorder of the thyroid gland. Although its etiology is not fully understood, it is believed to occur shortly after viral infections and is mostly associated with human leukocyte antigen (HLA)-B*35. Cellular immunity is prominent in SAT. Neopterin is produced by activated monocytes/macrophages and is a marker of cellular immunity. Its production is stimulated by interferon gamma (IFN- γ), provided mainly by activated helper T lymphocytes type 1 (Th1) in the adaptive immune system. Therefore, with these cells' activation, an increase in serum neopterin levels is expected. We aimed to evaluate neopterin levels in demonstrating cellular immunity in SAT and compared 15 SAT patients with 16 healthy controls. Since all SAT patients were in the active thyrotoxic phase, we found a significant difference in thyroid functions. Classical inflammatory markers, erythrocyte sedimentation rate, and C-reactive protein were markedly elevated in the patient group. Although we expected to find an increase considering that cellular immunity is at the forefront in the pathogenesis of SAT, we found serum neopterin levels significantly lower in the patient group than in the control group. There is an increase in CD8+ T cells in the thyroid tissue in SAT. The possible relationship with HLA-B*35- major histocompatibility complex class I in SAT, and the antigen presentation to CD8+ T cells may be the reason why we observed low serum neopterin levels in patients due to the cytokine imbalance. Neopterin provides unique and independent data from classical acute phase response indicators.

DIFFERENCES IN CLINICAL ASPECTS BETWEEN SUBACUTE THYROIDITIS ASSOCIATED WITH COVID-19 VACCINES AND CLASSICAL SUBACUTE THYROIDITIS

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Subacute thyroiditis (SAT) developed after SARS-CoV-2 vaccines has been less studied. We aimed to compare classical SAT and SAT developed after SARS-CoV-2 vaccines in the context of clinical aspects. Adults with SAT detected in 90 days of COVID-19 vaccination (CoronaVac or Pfizer/BioNTech) were grouped as Vac-SAT. Those with a history of SARS-CoV-2 or upper respiratory tract infection in 6 months before the vaccination, or vaccination with another antiviral vaccine after COVID-19 vaccination were excluded. Those with SAT detected before COVID-19 pandemic were grouped as Classical-SAT. Of total (n=85), female/male (54/31) ratio and age [43 (23-65)] were similar in Vac-SAT (n=23) and Classical-SAT (n=62). Duration between vaccine and SAT was 45 (7-90) days, and similar in CoronaVac-SAT (n=5) and BioNTech-SAT (n=18). SAT-duration was 28 (10-150) days, and higher in Vac-SAT than in Classical-SAT (p=0.023). SAT was developed after the 1st dose

vaccine in minority in CoronaVac-SAT (n=2) and BioNTech-SAT (n=3) (p=0.263). Previous LT4 use, and TSH elevation after resolution were more frequent in Vac-SAT than in Classical-SAT (p=0.027 and p=0.041). We included a considerable number of patients with SAT occurred after COVID-19 vaccines. We cannot provide clear evidence regarding the association of COVID-19 vaccines with SAT. SAT associated with CoronaVac or BioNTech seems unlikely to be occurred after the 1st dose, and to have a longer duration, more likely to be associated with previous LT4 use and lead TSH elevation after resolution than Classical-SAT. TSH should be followed-up after the resolution of SAT detected after COVID-19 vaccination.

ACCURATE INTERPRETATION OF THYROID DYSFUNCTION DURING PREGNANCY: SHOULD WE CONTINUE TO USE PUBLISHED GUIDELINES INSTEAD OF POPULATION-BASED GESTATION-SPECIFIC REFERENCE INTERVALS FOR THE THYROID-STIMULATING HORMONE (TSH)?

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Background: Considering the changes in thyroid physiology associated with pregnancy and poor outcomes related to abnormal maternal thyroid function, international guidelines recommend using population-based trimester-specific reference intervals (RIs) for thyroid testing. If these RIs are not available in the laboratory, implementing recommended fixed cut-off values globally is still controversial. To address this issue, we aimed to establish appropriate RI of thyroid-stimulating hormone (TSH) in pregnant Turkish women for our laboratory and compare the prevalence of thyroid dysfunction based on the established and recommended criteria.

Methods: Of 2638 pregnant women, 1777 women followed in the obstetric outpatient were enrolled in the reference interval study after applying exclusion criteria related to medical and prenatal history. A retrospective study was conducted by collecting data from July 2016 to March 2019. Serum TSH was measured by UniCel DxI 800 Immunoassay System (Beckman Coulter Inc., Brea, CA, USA). The study design relied on two approaches in order to classify pregnant women: trimester-specific and subgroup-specific; the latter involved dividing each trimester into two subgroups: T1_a, T1_b, T2_a, T2_b, T3_a, T3_b. The lower and upper limits of the RIs were derived by the parametric method after normalizing the data distribution using the modified Box-Cox power transformation method.

Results: The lowest TSH value was detected at 8-12 weeks in early pregnancy, and the median value of TSH in the T1_b subgroup was significantly lower than the T1_a subgroup (P < 0.05). TSH levels showed a gradual trend of increase along with the pregnancy and increased significantly in the T2_a, T2_b, and T3_b subgroups compared to the preceding subgroups (P < 0.05). Compared to the diagnostic criteria recommended by American Thyroid Association (ATA), the prevalence of thyroid dysfunction was significantly different from the established trimester- and

subgroup-specific RIs throughout the pregnancy ($P < 0.001$).

Conclusions: We conclude that establishing gestation- and laboratory-specific RIs, especially for TSH, is essential for diagnosing thyroid disorders in pregnancy, and the recommended universal cut-off values, which may contribute to the risk of a misdiagnosis or a missed diagnosis, should be taken with caution in the clinical setting. However, regarding the fluctuation of thyroid function tests throughout pregnancy, trimester-specific RIs are insufficient, and implementing split phases is required.

INVESTIGATION OF PITUITARY FUNCTIONS AFTER ACUTE CORONAVIRUS DISEASE 2019

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Although coronavirus disease 2019 (COVID-19) mainly involves the lungs, it also affects many systems. The hypothalamic/pituitary axis is vulnerable to hypoxia, hypercoagulation, endothelial dysfunction and autoimmune changes induced by COVID-19 infection. Given that there is no extensive investigation on this issue, we investigated the pituitary functions three to seven months after acute COVID-19 infection. Forty-three patients after diagnosis of COVID-19 infection and 11 healthy volunteers were included in the study. In addition to the basal pituitary hormone levels, growth hormone (GH) and hypothalamo-pituitary adrenal (HPA) axes were evaluated by glucagon stimulation test (GST) and low-dose adrenocorticotrophic hormone (ACTH) stimulation test, respectively. The peak cortisol responses to low-dose ACTH test were insufficient in seven (16.2%) patients. Twenty (46.5%) and four (9.3%) patients had inadequate GH and cortisol responses to GST, respectively. Serum insulin-like growth factor-1 (IGF-1) values were also lower than age and sex-matched references in four (9.3%) patients. The peak GH responses to GST were lower in the patient group when compared to the control group. Other abnormalities were mild thyroid-stimulating hormone elevation in four (9.3%) patients, mild prolactin elevation in two (4.6%) patients and central hypogonadism in four (9.3%) patients. Mean total testosterone values were lower in male patients when compared to male controls; however, the difference was not significant. These findings suggest that COVID-19 infection may affect pituitary functions, particularly the HPA and GH axes. These insufficiencies should be kept in mind in post-COVID follow-up. Long-term data are needed to determine whether these deficiencies are permanent or not.

THE EFFECT OF ADDITIONAL ACARBOSE ON METFORMIN-ASSOCIATED ARTIFICIALLY HIGH ¹⁸F-FLUORODEOXYGLUCOSE UPTAKE IN POSITRON EMISSION TOMOGRAPHY/COMPUTED TOMOGRAPHY

Emre Urhan¹, Emre Temizer², Zuleyha Karaca¹, Ummuhan Abdulrezzak², Canan Sehit Kara¹, Aysa Hacioglu¹, Kursad Unluhizarci³

Acta Diabetol. 2022 Jul;59(7):929-937. doi: 10.1007/s00592-022-01890-3. Epub 2022 Apr 16. PMID: 35429263 DOI: 10.1007/s00592-022-01890-3

Aim: Metformin causes diffuse and intense fluorodeoxyglucose (FDG) uptake more frequently in the colon and less frequently in the small intestine. In this study, we aimed to investigate the effect of simultaneous use of acarbose and metformin on FDG uptake in positron emission tomography/computed tomography (PET/CT), which has not been investigated previously.

Methods: Totally 145 patients with a median age of 65 years (range: 18-80 years), who underwent FDG PET/CT in the Department of Nuclear Medicine of Erciyes University Medical School between 2018 and 2021, were involved in the study. The patients undergoing PET/CT were categorized as metformin plus acarbose users (group MA), metformin users (group M), and control subjects without diabetes (group C). The maximum and mean standard uptake values (SUVmax and SUVmean) of FDG uptake of the all intestine segments were measured separately.

Results: The number of participants in each group was 35, 51 and 59 in group MA, group M and group C, respectively. The FDG uptake of all intestine was significantly higher in group MA and group M than in group C. The FDG uptake of ascending, transverse, descending, and sigmoid colon was significantly lower in group MA than in group M. The FDG uptake of the small intestine was not different between group MA and group M. The FDG uptake of the rectum was lower in group MA than group M and it was significant for SUVmean, but not significant for SUVmax.

Conclusion: The addition of acarbose to metformin therapy decreased SUV and artificially high FDG uptake in the colon and may be an alternative recommendation to discontinuing metformin in patients going to PET/CT imaging.

THE POTENTIAL IMPACT OF COVID-19 ON THYROID GLAND VOLUMES AMONG COVID-19 SURVIVORS

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Endocrine. 2022 Jun;76(3):635-641. doi: 10.1007/s12020-022-03019-6. Epub 2022 Mar 3. PMID: 35239124 PMCID: PMC8892112 DOI: 10.1007/s12020-022-03019-6

Purpose: Data about the effects of COVID-19 on the endocrine system are increasing over time. In the present study, we investigated the effects of COVID-19 on the thyroid gland among COVID-19 survivors by comparing them with healthy subjects.

Methods: Adult COVID-19 survivors who were managed and followed up in the Infectious Disease clinic were asked to participate in this study. COVID-19 survivors were recruited via a convenience sampling and those who agreed to participate in this study were seen by endocrinologists for assessments. The blood tests were obtained for thyroid antibodies and thyroid function tests. Thyroid ultrasonography (USG) was done by the same physician. The ellipsoid formula was used for the calculation of thyroid gland volume.

Results: 64 adult COVID-19 survivors and 70 control subjects were enrolled in the study. The COVID-19 survivors were evaluated at median 5.7 months (IQR: 4-6.5) (range: 2-7 months) after acute infection. The mean thyroid gland volume was significantly lower in COVID-19 survivors (10.3 ± 3.4 mL) than in the controls (14 ± 5.3 mL) ($p = 0.001$). There was no significant difference in free triiodothyronine (fT3), free thyroxine (fT4) and thyroid-stimulating hormone (TSH) levels between the groups. Among the twelve patients who had thyroid function evaluated in acute COVID-19, fT3 values were lower in acute COVID-19 than at the time of USG evaluation (3.04 ± 0.41 vs 3.47 ± 0.31 pg/mL), ($p = 0.02$). Among COVID-19 survivors, mild TSH elevation was detected in 4 (6.2%) patients and all of the other COVID-19 survivors (93.7%) were euthyroid.

Conclusions: At 6 months after acute COVID, COVID-19 survivors had smaller thyroid gland volume than healthy controls, and only a few of the COVID-19 survivors had abnormal thyroid function.

OVARIAN FUNCTIONS AND POLYCYSTIC OVARY SYNDROME IN ADULT WOMEN WITH TYPE 1 DIABETES MELLITUS IN A TURKISH POPULATION

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J Endocrinol Invest. 2023 Mar;46(3):609-616. doi: 10.1007/s40618-022-01946-9. Epub 2022 Oct 29. PMID: 36308639 DOI: 10.1007/s40618-022-01946-9

Purpose: The effect of gonadotropin-releasing hormone agonist (GnRHa) stimulation has not been studied in adult women with type 1 diabetes mellitus (DM). We investigated the baseline and stimulated hormone levels after GnRHa and the frequency and relationship between polycystic ovary syndrome (PCOS) and type 1 DM in adult women with type 1 DM.

Methods: We included 55 adult women (age, 17-35 years) with type 1 DM and 15 healthy women (age, 20-29 years). Hormones including total testosterone, androstenedione, dehydroepiandrosterone sulphate (DHEAS), follicle-stimulating hormone (FSH), luteinising hormone (LH), estradiol, prolactin, and thyroid-stimulating hormone were measured in the early follicular phase of the menstrual cycle. All participants underwent GnRHa stimulation test, and FSH, LH, estradiol and 17-OHP response levels were measured every 6 h for 24 h. PCOS was diagnosed according to ESHRE/ASRM (Rotterdam) criteria.

Results: Between patients with type 1 DM and healthy controls, no significant differences were noted in mean age and body mass index (BMI) as well as baseline and stimulated hormone levels after buserelin stimulation, except for baseline serum 17-OHP levels, which was higher in patients with type 1 DM. Polycystic ovary morphology (PCOM) was detected in 14 (25%) patients, clinical hyperandrogenism in 16 (29%), hyperandrogenemia in 25 (45%), anovulatory cycle in 72%, and PCOS in 20 (36%).

Conclusion: All parameters representing androgen excess disorders, except 17-OHP level, of both groups were similar, and frequencies of PCOS and anovulatory cycle in adult women with type 1 DM were 36% and 72%, respectively.

WHEN DO WE NEED TO SUSPECT MATURITY ONSET DIABETES OF THE YOUNG IN PATIENTS WITH TYPE 2 DIABETES MELLITUS?

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Arch Endocrinol Metab. 2022 Mar 8;66(1):32-39. doi: 10.20945/2359-3997000000431. Epub 2022 Jan 13. PMID: 35029855 PMCID: PMC9991031 DOI: 10.20945/2359-3997000000431

Erratum in

Correction: When do we need to suspect maturity onset diabetes of the young in patients with type 2 diabetes mellitus?

Arch Endocrinol Metab. 2022 Apr 28;66(2):272. doi: 10.20945/2359 3997000000468. PMID: 35482452. No abstract available.

Objective: Maturity onset diabetes of the young (MODY) patients have clinical heterogeneity as shown by many studies. Thus, often it is misdiagnosed to type 1 or type 2 diabetes (T2DM). The aim of this study is to evaluate MODY mutations in adult T2DM patients suspicious in terms of MODY, and to show clinical and laboratory differences between these two situations.

Methods: In this study, we analyzed 72 type 2 diabetic patients and their relatives (35F/37M) who had been suspected for MODY and referred to genetic department for mutation analysis. The gene mutations for MODY have been assessed in the laboratory of Marmara University genetics. Totally 67 (32F/35M; median age 36.1) diabetic patients were analyzed for 7 MODY mutations. Twelve patients who have uncertain mutation (VUS) were excluded from study for further evaluation. MODY(+) (n:30) patients and T2DM patients (n:25) were compared for clinical and laboratory parameters.

Results: In MODY(+) subjects, mutations in *GCK* (MODY 2) (n:12; 40%) were the most common followed by *HNF4A* (MODY 1) (n:4; 13.3%). Diabetes diagnosis age was younger in MODY(+) group but not statistically significant. Sixty-six percent of MODY(+) subjects had diabetes history at 3-consecutive generations in their family compared with 28% of T2DM patients statistically significant (p:0.006). Gender, BMI, C-peptide, HbA1c, lipid parameters, creatinine, GFR, microalbuminuria, vitamin D and calcium were not statistically different between the groups.

Conclusion: According to present study results, MODY mutation positivity is most probable in young autoantibody (-) diabetic patients diagnosed before 30 years of age, who have first degree family history of diabetes.

VITAMIN D SUPPLEMENTATION ALLEVIATES DIABETIC COMPLICATIONS BY INCREASING THE AMOUNT OF IRISIN IN TESTICULAR TISSUES AND BLOOD OF RATS WITH EXPERIMENTAL DIABETES

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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

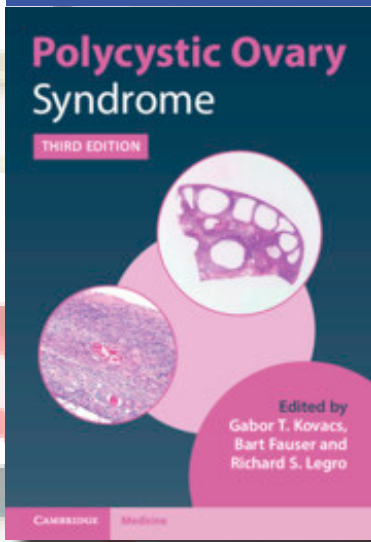
Objective: Diabetes is an important endocrinological disease that has an increasing incidence in the world and affects all biological tissues including testicles. Therefore, this study aimed to reveal the histological and biochemical effects of vitamin D on irisin, apoptosis, total antioxidant status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

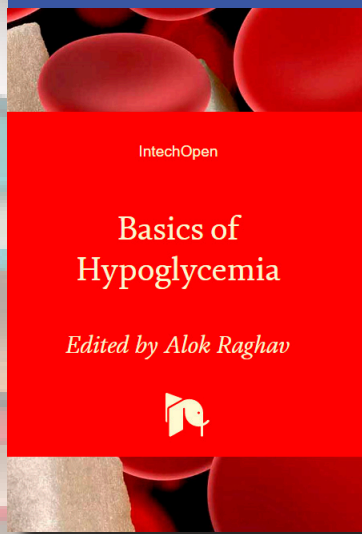
Results: When the diabetes group was compared with the control and sham groups, it was reported that the amounts of blood and tissue supernatant irisin and TAS significantly decreased and the TOS was significantly increased; a statistically significant increase in irisin and TAS of blood and tissue supernatants 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.

KİTAP BÖLÜMÜ



Kitap Adı: Polycystic Ovary Syndrome
Editörler: Gabor T. Kovacs, Bart Fauser, Richard S. Legro
 Chapter 8 - Adrenal and Polycystic Ovary Syndrome
 Ozlem Celik and Bülent Okan Yıldız
<https://www.cambridge.org/core/books/abs/polycystic-ovary-syndrome/adrenal-and-polycystic-ovary-syndrome/BC2A941B29037E5AA8B6E3BFC15C37C8>



Kitap Adı: Basics of Hypoglycemia
Editör: Alok Raghav
Bölüm Adı: Treatment of Hypoglycemia
 Yasin Simsek and Emre Urhan
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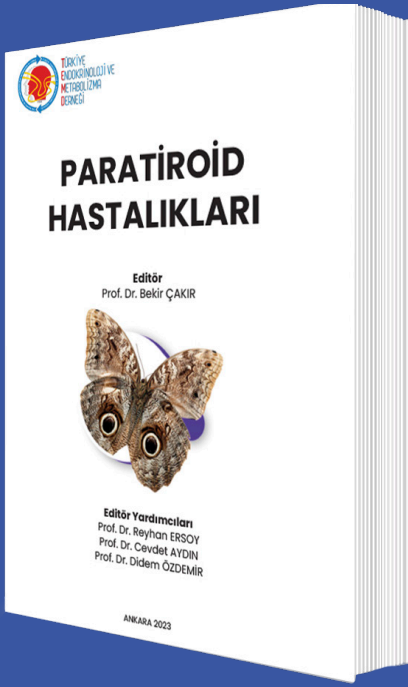
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