

TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ BÜLTENİ



Üç ayda bir online yayınlanır

Sayı 78 • Nisan – Mayıs – Haziran • 2022

43. TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA HASTALIKLARI KONGRESİ TAMAMLANDI

“43. Türkiye Endokrinoloji ve Metabolizma Hastalıkları Kongresi” pandemi sonrası ilk kez yüz yüze olarak Antalya Susesi Otel’de, 18-22 Mayıs 2022 tarihleri arasında, 963 meslektaşımızın katılımı ile başarıyla tamamlandı.

Başkanlığını Prof. Dr. Ayşegül Atmaca’nın, Kongre Bilimsel Sekreterliğini Prof. Dr. İbrahim Şahin ve Prof. Dr. M. Eda Ertörner’in yaptığı kongrenin açılış programında Oturum Başkanlığını Prof. Dr. Gürbüz Erdoğan ve Prof. Dr. Tümay Sözen’in üstlendiği Ustalara Saygı Oturumu’na Prof. Dr. Sema Yarman değerli tecrübelerini anlattığı konuşması ile renk kattı.

43. Türkiye Endokrinoloji ve Metabolizma Hastalıkları Kongresi bilimsel programında, Endokrinolojide Tanısal Testler Kursu, Diyabetik Ayağa Multidisipliner Yaklaşım Kursu, Nöroendokrin Tümörler Kursu

olmak üzere 3 kurs, 17 konferans, 21 panel, 3 mini panel, 9 uzmanına danış, 10 sözlü bildiri oturumu ve 10 uydu sempozyumu yer aldı. Beşi yurt dışından davetli olmak üzere toplam 227 konuşmacı ve oturum başkanı görev aldı.

Bu yıl Genç Araştırmacı Ödülü’nü almaya, İstanbul Üniversitesi İstanbul Tıp Fakültesi yan dal asistanı Özge Telci Çaklılı hak kazandı. Dr. Özge Telci Çaklılı açılış töreninde çalışmalarını anlattığı bir konferans verdi. 43. Türkiye Endokrinoloji ve Metabolizma Hastalıkları Kongresi’nde 60 Sözlü, 225 Poster olmak üzere toplam 285 bildiri sunuldu.

Bilimsel Kurul tarafından yapılan değerlendirmeler sonucunda her yıl olduğu gibi bu yıl da en iyi 3 sözlü ve 3 poster bildiriye ödül verildi. TURKJEM Makale Yarışması’nın sonuçları da kongremiz sırasında açıklandı ve ödüller sahiplerini buldu.

Kongrede, akreditasyon sürecini başarıyla tamamlayan Endokrinoloji ve Metabolizma Hastalıkları Bölümlerine akreditasyon belgeleri takdim edildi.

Kongremize emek ve değerli zamanlarını harcayan bilimsel kurul üyelerine, konuşmacı ve oturum başkanı olarak görev alan tüm üyelerimize, destek veren ilaç firmalarına ve katılan tüm meslektaşlarımıza teşekkür ederiz.



SÖZLÜ BİLDİRİ ÖDÜLLERİ**SÖZLÜ BİLDİRİ BİRİNCİLİK ÖDÜLÜ (SS 59)****REKÜRREN PAPİLLER TİROİD KARSİNOMLU HASTALARDA NÜKS VEYA METASTATİK LEZYONLARIN TEŞHİSİ İÇİN 68GA-FAPI-04 VE 18FDG PET/CT'NİN KARŞILAŞTIRILMASI**

Umut Elboğa¹, Zeynel Abidin Sayiner², Ertan Şahin¹, Sadettin Öztürk³, Yusuf Burak Cayırlı¹, Yusuf Zeki Çelen¹, Ersin Akarsu², Merve Okuyan¹, Orhan Tunç⁴

¹Gaziantep Üniversitesi Tıp Fakültesi, Nükleer Tıp Anabilim Dalı, Gaziantep

²Gaziantep Üniversitesi Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, Gaziantep

³Dr. Ersin Arslan Eğitim ve Araştırma Hastanesi, Endokrinoloji ve Metabolizma Hastalıkları Kliniği, Gaziantep

⁴Gaziantep Üniversitesi Tıp Fakültesi, Kulak Burun Boğaz Anabilim Dalı, Gaziantep

SÖZLÜ BİLDİRİ İKİNCİLİK ÖDÜLÜ (SS 39)**TRİGLİSERİD-GLUKOZ (TYG) İNDEKSİ İLE TİROİD KANSERİ ARASINDAKİ İLİŞKİ**

Mithat Eser¹, Cem Haymana¹, İbrahim Demirci¹, Burcu Candemir², Bağdagül Yüksel Güler¹, Sakine Güzel Esen¹, Adile Begüm Bahçecioğlu¹, Şafak Akın¹, Coşkun Meriç¹, Neşe Ersöz Gülçelik², Yusuf Alper Sönmez¹

¹Sağlık Bilimleri Üniversitesi, Gülhane Eğitim ve Araştırma Hastanesi Endokrinoloji ve Metabolizma Hastalıkları Kliniği, Ankara

²Sağlık Bilimleri Üniversitesi, Gülhane Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Kliniği, Ankara

SÖZLÜ BİLDİRİ ÜÇÜNCÜLÜK ÖDÜLÜ (SS 53)**GASTRİK VE PANKREATİK NÖROENDOKRİN TÜMÖRLERDE YENİ BİR BİYOBELİRTEÇ: ALFAİTERNEKSİN; ÖNVERİ DEĞERLENDİRMESİ**

İrem Erdoğan Veziroğlu¹, Gülten Can Sezzin², Figen Öztürk³, Müge Gülcihan Önal⁴, Armağan Caner⁴, Canan Şehit Kaya⁵, Sedat Tarık Fırat⁶, Fahri Bayram⁵

¹Erciyes Üniversitesi Tıp Fakültesi, İç Hastalıkları Anabilim Dalı, Kayseri

²Erciyes Üniversitesi Tıp Fakültesi, İç Hastalıkları Anabilim Dalı, Gastroenteroloji Bilim Dalı, Kayseri

³Erciyes Üniversitesi Tıp Fakültesi, Tıbbi Patoloji Anabilim Dalı, Kayseri

⁴Erciyes Üniversitesi Betül Ziya Eren Genom ve Kök Hücre Araştırma Merkezi (GENKÖK), Kayseri

⁵Erciyes Üniversitesi Tıp Fakültesi, İç Hastalıkları Anabilim Dalı, Endokrinoloji Bilim Dalı, Kayseri

⁶Erciyes Üniversitesi Tıp Fakültesi, İç Hastalıkları Anabilim Dalı, Medikal Onkoloji Bilim Dalı, Kayseri

POSTER BİLDİRİ ÖDÜLLERİ**POSTER BİLDİRİ BİRİNCİLİK ÖDÜLÜ (PS 196)****SUBAKUT TİROİDİT PARANKİMİNDE TİROİD NODÜLLERİ VE EU-TIRADS SKORLARININ DEĞERLENDİRİLMESİ**

Sema Hepşen, Hayri Bostan, Pınar Akhanlı, Muhammed Erkam Sencar, Muhammed Kızılgül, Bekir Uçan, Özgür Özçelik, Erman Çakal

Sağlık Bilimleri Üniversitesi, Dışkapı Yıldırım Beyazıt Eğitim ve Araştırma Hastanesi, Endokrinoloji ve Metabolizma Hastalıkları Kliniği, Ankara

POSTER BİLDİRİ İKİNCİLİK ÖDÜLÜ (PS 02)**KONJENİTAL ADRENAL HİPERPLAZİLİ OLGULARIMIZIN RETROSPEKTİF OLARAK DEĞERLENDİRİLMESİ**

Fatma Avcı Merdin, Fatma Nur Korkmaz, Asena Gökçay Canpolat, Özgür Demir, Mustafa Şahin, Rifat Emral, Murat Faik Erdoğan, Sevim Güllü, Vedia Tonyukuk Gedik, Demet Çorapçıoğlu

Ankara Üniversitesi Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı

POSTER BİLDİRİ ÜÇÜNCÜLÜK ÖDÜLÜ (PS 30)**COVID-19 İLİŞKİLİ YENİ TANI DİYABET OLGULARIMIZIN KLİNİK VE LABORATUVAR ÖZELLİKLERİ**

Elif Ece Doğan, Nubar Rasulova, Hülya Hacışahinoğulları, Gülşah Yenidünya Yalın, Özlem Soyluk Selçukbiricik, Nurdan Gül, Ayşe Kubat Üzümlü, Kubilay Karşıdağ, İlhan Satman

İstanbul Üniversitesi, İstanbul Tıp Fakültesi, İç Hastalıkları, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, İstanbul

TURKJEM 5. ÖDÜLLÜ MAKALE YARIŞMASI ÖDÜLLERİ

BİRİNCİLİK ÖDÜLÜ

FOOT ULCER A DEVASTATING COMPLICATION OF DIABETES MELLITUS: A SINGLE-CENTER EXPERIENCE OF 400 PATIENTS
DIABETES MELLİTUSUN YIKICI BİR KOMPLİKASYONU OLAN AYAK ÜLSERİ: 400 HASTADAN OLUŞAN TEK MERKEZ DENEYİMİ

Mehtap Evran, Murat Sert, Gamze Akkuş, Ömer Sunkar Biçer, Erol Kesiktaş, Behice Kurtaran, Erol Aksungur, Tamer Tetiker
 Department of Internal Medicine, Division of Endocrinology and Metabolism, Çukurova University Faculty of Medicine, Adana, Turkey
 DOI: 10.25179/tjem.2021-81583 Turk J Endocrinol Metab. 2021;25:133-141
<https://www.turkjem.org/en/foot-ulcer-a-devastating-complication-of-diabetes-mellitus-a-single-center-experience-of-400-patients-1688>

İKİNCİLİK ÖDÜLÜ

PREVALENCE AND AWARENESS OF HYPERTENSION IN SEVEN DISTINCT GEOGRAPHIC REGIONS OF TURKEY: THE SEMT HT STUDY

TÜRKİYE'NİN YEDİ FARKLI COĞRAFİ BÖLGESİNDE HİPERTANSİYON SIKLIĞI VE FARKINDALIĞI: TEMD HT ÇALIŞMASI

Fahri Bayram, Özgür Demir¹, Tevfik Sabuncu², Mehmet Ali Eren², Aydın Vedia Gedik¹, Demet Çorapçıoğlu¹, Ahmet Kaya³
 Department of Endocrinology, Erciyes University Faculty of Medicine, Kayseri, TURKEY

Turk J Endocrinol Metab 2021; 25: 1-10 - DOI: 10.25179/tjem.2020-78532
<https://www.turkjem.org/en/prevalence-and-awareness-of-hypertension-in-seven-distinct-geographic-regions-of-turkey-the-semt-ht-study-16136>

ÜÇÜNCÜLÜK ÖDÜLÜ

SEXUAL FUNCTIONS OF TRANSGENDER INDIVIDUALS BEFORE GENDER TRANSITION
TRANS BİREYLERİN CİNSİYET GEÇİŞ ÖNCESİ SEKSÜEL FONKSİYONLARI

Serdar Şahin, Özge Polat Korkmaz, Emre Durcan, Hande Mefkure Özkaya, Şenol Turan, Pınar Kadioğlu
 Department of Internal Medicine, Division of Endocrinology, Metabolism, and Diabetes, İstanbul University-Cerrahpaşa, Cerrahpaşa Faculty of Medicine, İstanbul, TURKEY

Turk J Endocrinol Metab 2021; 25: 184-192 - DOI: 10.25179/tjem.2021-81979
<https://www.turkjem.org/en/sexual-functions-of-transgender-individuals-before-gender-transition-16106>

ENDOKRİNOLOJİ VE METABOLİZMA HASTALIKLARI AKREDİTE OLAN KURUMLAR

Akreditasyon sürecini başarı ile tamamlayan Endokrinoloji ve Metabolizma Hastalıkları Bölümlerine akreditasyon belgeleri 43. TEMH kongresinde takdim edildi.

Kutluyor ve başarılarının devamını diliyoruz.

AKREDİTE OLAN KURUMLAR (ALFABETİK SIRA İLE)

Ankara Üniversitesi Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı

Gazi Üniversitesi Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı

Öndokuz Mayıs Üniversitesi Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı



1. BESLENME VE EGZERSİZ SEMPOZYUMU TAMAMLANDI

1. Beslenme ve Egzersiz Sempozyumu, 9 Nisan 2022 tarihinde, İstanbul Seyrantepe Hamidiye Etfal Eğitim Araştırma Hastanesi Konferans Salonunda, yaklaşık 100 meslektaşımızın katılımı ile gerçekleştirilmiştir. Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.



A'DAN Z'YE DİYABET KLİNİK ARAŞTIRMALARI TEMEL EĞİTİMİ TAMAMLANDI

A'dan Z'ye Diyabet Klinik Araştırmaları Temel Eğitimi, 16-17 Nisan 2022 tarihlerinde, 51 meslektaşımızın katılımı ile online olarak gerçekleştirilmiştir. Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.

20. HİPERTANSİYON, DİSLİPIDEMİ VE OBEZİTE EĞİTİM SEMPOZYUMU TAMAMLANDI

20. Hipertansiyon, Dislipidemi ve Obezite Eğitim Sempozyumu, 4-5 Haziran 2022 tarihlerinde, Van Elite World Otel'de, yaklaşık 130 meslektaşımızın katılımı ile gerçekleştirilmiştir. Emeği geçen tüm üyelerimize teşekkür eder, saygılarımızı sunarız.



CANLI YAYIN TOPLANTILARIMIZ...



OBEZİTE, DİSLİPİDEMİ HİPERTANSİYON ÇALIŞMA GRUBU "DİSLİPİDEMİ"



MODERATÖR



Prof. Dr. Tevfik Sabuncu

Harran Üniversitesi Tıp Fakültesi
Endokrinoloji ve Metabolizma Hastalıkları
Bilim Dalı, Şanlıurfa

KONUŞMACI



Doç. Dr. Cem Haymana

Ailevi Hiperkolesterolemi
SBÜ Gülhane Tıp Fakültesi Endokrinoloji ve
Metabolizma Hastalıkları
Bilim Dalı, Ankara

KONUŞMACI



Doç. Dr. Ilgın Yıldırım Şimşir

Her Yönüyle Hipertrigliseridemi
Ege Üniversitesi Tıp Fakültesi
Endokrinoloji ve Metabolizma Hastalıkları
Bilim Dalı, İzmir



**26 Nisan 2022 Salı
SAAT : 20:30**



NADİR HASTALIKLAR ORTAK ÇALIŞMA PROJELERİ : BİZİMLE ÇALIŞMAK İSTER MİSİNİZ?



MODERATÖR



Prof. Dr. Tevfik Demir

Dokuz Eylül Üniversitesi Tıp Fakültesi,
Endokrinoloji ve
Metabolizma Hastalıkları Bilim Dalı, İzmir

KONUŞMACI



Prof. Dr. Refik Tanakol

Amerikan Hastanesi,
Endokrinoloji ve
Metabolizma Hastalıkları Bölümü, İstanbul

KONUŞMACI



Prof. Dr. Fahri Bayram

Erciyes Üniversitesi Tıp Fakültesi,
Endokrinoloji ve
Metabolizma Hastalıkları Bilim Dalı, Kayseri



**21 Haziran 2022 Salı
SAAT : 21:00**

1. MODÜL

YAYINDA

KEMİK VE MİNERAL METABOLİZMASI VE BOZUKLUKLARI

Bu modül; 5 bölümden oluşan toplam 29 ders ile siz değerli üyelerimiz için yayındadır.

<https://endokrinakademi.org/>



2. MODÜL

YAYINDA

DIABETES MELLITUS

Bu modül; 2 bölümden oluşan toplam 11 ders ile siz değerli üyelerimiz için yayındadır.

<https://endokrinakademi.org/>



www.endokrinakademi.org

ENDOKRİN AKADEMİ AÇILDI

ENDOKURS 5

SUNUMLARI

ENDOKRİN AKADEMİ'de

YAYINDA

ENDOKURS 5

Mezuniyet Sonrası Eğitim Kursu




ERİŞKİN VE ÇOCUK TİROİD ÇALIŞMA GRUBU TOPLANTILARI-2

TEMĐ TİROİD ÇALIŞMA GRUBU

ÇEDD TİROİD ÇALIŞMA GRUBU

10 Haziran 2022 Cuma

Oturum Başkanları: Prof. Dr. Zehra Aycan, Prof. Dr. Sait Gönen

Açılış: TEMĐ ve ÇEDD Tiroid Çalışma Grubu Başkanları

Prof. Dr. Cengiz Kara, Prof. Dr. Mustafa Şahin

19.00-19.35: Çocuklarda Hipotiroidi Tedavisi Prof. Dr. Olcay Evliyaoğlu

19.40-20.15: Yetişkinlerde Hipotiroidi Tedavisi Prof. Dr. Erman Çakal

20.15-20.45: Soru ve Cevaplar

Toplantı Online olarak gerçekleştirilecektir.






Cushing Sendromu Farkındalık Günü

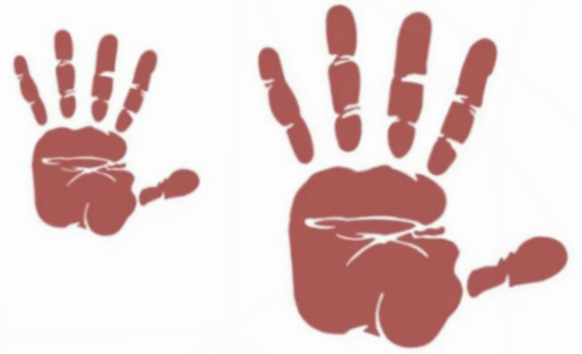
8 NİSAN



TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
DERNEĞİ

Akromegali Farkındalık Günü

15 Nisan



TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
DERNEĞİ

15 NİSAN AKROMEGALİ FARKINDALIK GÜNÜ

Akromegali nedir?

Akromegali, Yunanca «akro»= «uç» ve «megalia»= «büyüme» kelimelerinden türemiştir. El, ayaklarda ve tüm vücut doku ve organlarda büyüme ve bu büyümeler sonucunda gelişen mekanik ve metabolik komplikasyonlar ile kendisini gösteren bir klinik tablodur.

Hemen her zaman hipofiz bezinden kontrolsüz olarak artmış «büyüme hormonu» (BH) salgılayan bir tümöre bağlı olarak ortaya çıkar.

*Bak - gör - şüphelen,
Tek testle tanı koy,
Tedavi et ve ...
Büreye Daha İyi Bir Hayat Kazandır!*

Akromegalinin Belirti ve Bulguları nelerdir?

Ellerde ve ayaklarda büyüme,
Yüzük ve şapka ölçüsünde artma
Dilde büyüme
Seste boğuklaşma ve kabalaşma
Baş ağrısı
Horlama, uyku sorunları
Kaslarda kuvvetsizlik
Aşırı terleme
Vücut kokusunda değişme
Ciltte aşırı yağlanma,
Kadınlarda adet düzensizliği, Erkeklerde cinsel fonksiyon bozuklukları



*Aynada gördüğüm yüzüm, ayaklarım, ellerim...
Yaşadığım için mi bu değişim?*



TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
DERNEĞİ

25 Mayıs Tiroid Farkındalık Günü

HİPOTİROİDİ

HİPERTİROİDİ

Dünya genelinde on milyonlarca insan tiroid hastalığından etkilenmektedir.

Hashimoto tiroiditi kadınlarda erkeklerden çok daha sık (5-20 kat) görülmektedir ve en sık 30-50 yaş arası görülür.

Yorgunluk uyku hali güçsüzlük, soğuğa tahammülsüzlük üşüme, depresyon, kilo alma ve saç dökülmesi semptomlardan bir kaçıdır.

Graves hastalığı hipertiroidinin en sık sebebidir. Sıklıkla 20-40 yaş arası kadınlarda görülmekte birlikte her iki cinsiyette ve her yaşta görülebilir.

İştahta değişiklik olmaksızın, istenmeyen kilo kaybı, çarpıntı, aşırı terleme, sıcağa tahammülsüzlük ve sinirlilik sıklıkla görülen semptomlar arasındadır.

Bu semptomları yaşıyorsanız tiroid tetkiklerinizi yaptırmayı ihmal etmeyin.



TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
DERNEĞİ

KONGRE, KURSLAR VE SEMPOZYUMLAR



TÜRKİYE ENDOKRİNOLOJİ VE METABOLİZMA DERNEĞİ

1. Kemik Endokrinolojisi, Osteoporoz ve Metabolik Kemik Hastalıkları Sempozyumu

3-4 Eylül 2022

Point Barbaros Otel, İstanbul

ORGANİZASYON SEKRETERYASI

DMR CONGRESS INCENTIVE ORGANIZATION

Türkiye Endokrinoloji ve Metabolizma Derneği
Meşrutiyet Cad. Ali Bey Apt. 29/12
Kızılay / ANKARA
Tel : 0 312 425 20 72
Faks : 0 312 425 20 98
www.temd.org.tr • president@temd.org.tr

Sokarno Cad. 896. Sok. No: 22/9-10
06560 • Yıldız
Çankaya - ANKARA
Tel : 0 312 442 01 50
gokhan.kilic@dmrturizm.com.tr
www.dmrturizm.com.tr

TEMĐ HİPOFİZ HASTALIKLARI SEMPZYUMU "Hipofiz Yetmezliđi"

24 EYLÜL 2022

Wyndham Grand Kayseri

YÜZ YÜZE

ONLINE



Bilimsel Sekreteryası
Türkiye Endokrinoloji ve Metabolizma Derneđi

Meşrutiyet Cad. Ali Bey Apt.
No:29 D:12, 06420 Kızılay
Çankaya - Ankara T: 0312 425 20 72
info@temd.org.tr www.temd.org.tr



Organizasyon Sekreteryası
Feniks Kongre Organizasyon
Turan Güneş Bulvarı 713. Cad. No: 9-13
Çankaya - Ankara
T: 0312 442 70 40
feniks@feniksturizm.com.tr
www.feniksturizm.com.tr

www.temd.org.tr

**Bilimsel program açıklanmıştır.
İncelemek için lütfen tıklayın.**

<http://endokurs.org/>



**TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
DERNEĞİ**



ENDOKURS 6

**Mezuniyet Sonrası
Eğitim Kursu**

**14-16 Ekim 2022
Adana HiltonSA**

www.endokurs.org





TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
DERNEĞİ

44. TÜRKİYE ENDOKRİNOLOJİ ve METABOLİZMA HASTALIKLARI KONGRESİ

12-13 MAYIS 2023
THE MARMARA TAKSİM
İSTANBUL



TÜRKİYE
ENDOKRİNOLOJİ VE
METABOLİZMA
DERNEĞİ

Bilimsel Sekreteryası
Türkiye Endokrinoloji ve Metabolizma
Derneği

Meşrutiyet Cad. Ali Bey Apt.
No:29 D:12, 06420 Kızılay
Çankaya - Ankara T: 0312 425 20 72
info@temd.org.tr www.temd.org.tr

Feniks
PCO & INCENTIVE & EVENT

Organizasyon Sekreteryası
Feniks Kongre Organizasyon

Turan Güneş Bulvarı 713. Cad. No: 9-13
Çankaya - Ankara
T: 0312 442 70 40
feniks@feniksturizm.com.tr
www.feniksturizm.com.tr

www.temhk.org



AVRUPA SAĞLIĞINDA HORMONLARIN TEMEL ROLÜNÜN TANINMASI: 'MİLANO BİLDİRİSİ'

23 MAYIS 2022 TARİHLİ 1. AVRUPA HORMON GÜNÜ SEBEBİYLE YAYINLANAN AVRUPA ENDOKRİNOLOJİ DERNEĞİ VE AVRUPA HORMON VE METABOLİZMA VAKFI ORTAK BİLDİRİSİ

Çünkü Hormonlar Önemlidir

1. Avrupa Hormon Günü vesilesiyle, Avrupa Endokrinoloji Derneği, Avrupa Hormon ve Metabolizma Vakfı ve ortak dernekler, ESE'nin "Avrupa Sağlık Politikalarında Hormonlar" üzerine yayınladığı ortak bildiride (Mayıs 2021 tarihinde yayınlanan) belirtildiği şekilde endokrin sağlık perspektifinin Avrupa sağlık politikalarının ayrılmaz bir parçası haline getirilmesi çağrısında bulunmaktadır.

Bu nedenle çağrıda bulunuyoruz:

- Avrupa ve Üye Devletlerin, tüm Avrupa vatandaşlarının her gün yeterli miktarda iyot, D Vitamini ve kalsiyum almalarını sağlayarak, önlenabilir hormon eksikliklerini engellemek ve böylelikle coğrafya, yaş, cinsiyet ve etnik kökenler arasındaki eşitsizlikleri azaltmak yönünde gerekli adımları atmaları.
- Obezite, diyabet, kötü beslenme ve bunlarla ilişkili metabolik rahatsızlıkların artan prevalansı ile mücadele edebilmek için uygun fiyatlı sağlıklı beslenme ve fiziksel aktivitenin dahil olduğu sağlıklı bir yaşam tarzının desteklenmesi ve teşvik edilmesini amaçlayan politikalar uygulanması.
- Obezite, kanser ve nadir görülen hastalıklarla ilgili önemli sağlık sorunlarının ortak bir Avrupa sağlık şemsiyesi altında Ulusal Sağlık Eylem Planlarının koordinasyonu sağlanarak ele alınması.
- Nadir görülen hastalıkları olan hastaların arasındaki eşitsizliğin azaltılması amacıyla her üye ülkenin sağlık hizmeti sisteminin bir parçası haline getirilecek, iyi hazırlanmış bir Avrupa Referans Ağ sistemi geliştirilmesi taahhüdünün verilmesi.
- AB Yeşil Mutabakatı ve Sürdürülebilirlik İçin Kimyasallar Stratejisi kapsamında, toksik olmayan bir ortamın oluşturulması ve endokrin sistemi olumsuz etkileyen bileşiklerin yasaklanması ve toplumdaki savunmasız grupların korunması konusunda yasama eyleminin sürdürülmesi.
- Hormona bağlı hastalıkların yayılmasıyla ilgili giderek artan toplumsal ve bireysel maliyetin azaltılması için ilk olarak endokrin hastalıkların kökenlerini, teşhisini, önlenmesini ve tedavisini araştıran temel, translaşyonel, klinik ve hasta merkezli araştırmalara yatırım yapılması gerekmektedir.

- Eğitimli toplulukların ve diğer sağlık hizmeti paydaşlarının, Avrupalı hastaların mümkün olabilecek en iyi bakıma erişebilmelerini sağlamak amacıyla yeni klinik rehberlik geliştirme, bunları yayma ve entegre etme çabalarına destek olunması.

Bu çağrıya neden kulak vermek gerekli?

Çünkü Hormonlar Önemlidir

- Hormonlar sağlıklı bir yaşamın temelini oluşturur. Vücut fonksiyonlarının pek çoğunu; büyüme ve gelişmemizi, tüketilen gıdaları işleyiş şeklimizi, cinsel fonksiyonlarımızı ve üretkenliğimizi, bilişsel süreçlerimizi ve genel sağlığımızı yönetirler.
- Hormonal sistemlerin dengesi bozulduğunda, obezite, diyabet, tiroid bezi bozuklukları, kanser, kısırlık ve kemik erimesi gelişebilir. Bunlar, çağımızda karşılaştığımız en büyük sağlık problemleridir.
- Belirli hormon ilişkili hastalıklar, genetik veya doğuştandır. Oysa Tip 2 diyabet, obezite, tiroid bezi hastalıkları ve kemik erimesi gibi hastalıkların oluşumu, çoğu zaman önlenabilir.



Milano Bildirisi

23 Mayıs
Avrupa Hormon Günü

Çünkü Hormonlar Önemlidir

www.europanhormoneday.org



- Obezite, aşırı yağ birikimiyle gelişen endokrinolojik bir hastalıktır ve diyabet, kanser ve kardiyovasküler hastalıklar gibi 200'den fazla komorbiditeyle ilişkilidir.
- Hastaların ve ailelerinin acı çekmesine ve hayatlarının aksamasına neden olan ve toplumun omuzlarında büyük yük oluşturan, hormonal sistemin kronik bozuklukları kaynaklı veya bağlantılı 440'ün üzerinde nadir görülen hastalık bulunmaktadır.
- Çevremizde bulunan karışımların neden olduğu endokrin bozukluklar, obezite, hipertansiyon, kısırlık, tiroid bezi hastalıkları ve belirli kanser türlerine yol açar.
- Kanser ve HIV gibi yaşamı belirgin olarak etkileyen pek çok kronik hastalığın tedavisi de hormon sağlığı üzerinde olumsuz etkiler gösterebilmekte, endokrinolojik ve metabolik komorbiditelerle sonuçlanabilmektedir.
- Hormonal bozukluklar, yaşam biçimi değişikliği, daha sağlıklı bir ortamın sağlanması ve bazı durumlarda günlük beslenmeye faydalı bileşiklerin dahil edilmesi (ör. iyot, D Vitamini) veya şeker ya da zararlı katı yağ alımının azaltılması gibi yöntemlerle önlenebilmektedir.
- Etkili müdahale ve tedavilerin geliştirilmesi konusunda ilerleme kaydedilmiş olsa da, tüm hastaların sağaltıma eşit şekilde erişmesini sağlamak için daha fazlasının yapılması gerekmektedir.
- Vücudun hormonal ve metabolik sağlığı ciddi şekilde etkileyebilecek stres ve enfeksiyonlara (COVID-19 gibi) adapte olabilmesinin temel yolu endokrin sistemin düzgün çalışmasıdır.

Aşağıdaki Avrupa Parlamentosu Üyeleri tarafından desteklenmiştir:

Avrupa Parlamentosu Başkan Yardımcısı Ewa Kopacz (Avrupa Halk Partisi, PL), Avrupa Parlamentosu Üyesi Maria Arena (Sosyalistler ve Demokratlar İlerleyici İttifakı, BE), Avrupa Parlamentosu Üyesi Bartosz Arłukowicz (Avrupa Halk Partisi, PL), Avrupa Parlamentosu Üyesi Maria da Graça Carvalho (Avrupa Halk Partisi, PT), Avrupa Parlamentosu Üyesi Martin Hojsík (Avrupa'yı Yenile Grubu, SK), Avrupa Parlamentosu Üyesi Sirpa Pietikäinen (Avrupa Halk Partisi, FI), Avrupa Parlamentosu Üyesi Stanislav Polčák (Avrupa Halk Partisi, CZ), Avrupa Parlamentosu Üyesi Manuela Ripa (Yeşiller/Avrupa Özgür İttifakı, DE), Søren Gade (Avrupa'yı Yenile Grubu, DK)

Aşağıdaki Endokrin Dernekleri ve Avrupa Referans Ağları tarafından desteklenmiştir:

Arnavutluk Endokrinoloji Derneği, Avusturya Endokrinoloji ve Metabolizma Derneği, Belçika Endokrin Derneği, Bosna Hersek Endokrinoloji ve Diyabetoloji Derneği, Bulgaristan Endokrinoloji Derneği, Hırvatistan Diyabet ve Metabolik Bozukluklar Derneği, Kıbrıs Endokrinoloji Derneği, Çek Endokrinoloji Derneği, Hollanda Endokrinoloji Derneği, Finlandiya Endokrinoloji Derneği, Fransa Endokrinoloji Derneği, Gürcistan Endokrinoloji ve Metabolizma Birliği, Almanya Endokrinoloji Derneği, Yunanistan Endokrinoloji Derneği, Macaristan Endokrinoloji ve Metabolizma Derneği, İzlanda Endokrinoloji Derneği, İsrail Endokrinoloji Derneği, İtalya Tıbbi Endokrinoloji Birliği, İtalya Endokrinoloji Derneği, Letonya Endokrinoloji Birliği, Litvanya Endokrinoloji Birliği, Makedonya Endokrinologlar ve Diyabetologlar Bilimsel Derneği, Norveç Endokrinoloji Derneği, Polonya Endokrinoloji Derneği, Polonya Jinekolojik Endokrinoloji Derneği, Romanya Psikonöroendokrin Derneği, Romanya Endokrinoloji Derneği, Sırbistan Endokrinoloji Derneği, Slovakya Endokrinoloji Derneği, Slovenya Endokrinoloji Derneği, İngiltere Endokrinoloji Derneği, İspanya Endokrinoloji ve Beslenme Derneği, İsveç Endokrinoloji Derneği, İsviçre Endokrinoloji ve Diyabet Derneği, Türkiye Endokrinoloji ve Metabolizma Derneği Avrupa Androloji Akademisi, Avrupa Adrenal Tümör Araştırmaları Ağı, Avrupa Tiroid Derneği, Avrupa Nöroendokrin Birliği, Büyüme Hormonu Araştırma Derneği, Avrupa Pediatrik Endokrinoloji Derneği, Endo ERN (Endokrin Hastalıklar Ağı) ve ERN-BOND (Kemik Hastalıkları Ağı)

Aşağıdaki Hasta Savunma Grupları tarafından desteklenmiştir:

Addison Foreningen-Danimarka, Addison Hastalığı Kendine Yardım Grubu İngiltere ve İrlanda, AdrenalNet, İtalyan Addison Hastalığı Derneği (Associazione Italiana Morbo di Addison) AIPAd, Cushing Destek ve Araştırma Vakfı, Hollanda Adrenal Derneği NVACP, Avrupa Multipl Endokrin Neoplazi İttifakı, Fransa Hipoparatiroidizm Derneği (Hypoparathyroidisme France), Uluslararası Prader-Willi Sendromu Organizasyonu, Hollanda Hipofiz Vakfı, Hipofiz ve Adrenal Hastalıklar Ağı (Netzwerk Hypophysen und Nebennierenerkrankungen e.V.), Paratiroid BK, Turner Sendromu Destek Derneği, Uluslararası Tiroid Federasyonu, Dünya Hipofiz Organizasyonu İttifakı

SON DÖNEMLERDE SAĞLIK ALANINDA YAPILAN HUKUKİ DÜZENLEMELER HAKKINDA BİLGİLENDİRME

İlgili Yönetmelik ile özellikle iki önemli konuda değişiklik yapılmış olup; ilgili hususlar

- "Kadro talep tarihi itibarıyla aktif olarak faaliyet gösteren özel hastaneler, ruhsatlarında kayıtlı uzman hekim kadrolarını başka bir özel hastaneye veya tıp merkezine devredebilir, devralabilir veya karşılıklı olarak değiştirebilirler. İl içi yapılacak devir işlemleri Müdürlükçe gerçekleştirilir. İller arası kadro devrine ve karşılıklı kadro değişimine planlama ilkeleri çerçevesinde sağlık kuruluşu hizmeti sunulması için öngörülen asgari nüfus ve/veya ilde verilmesi hedeflenen sağlık hizmetleri ile uzman tabip dağılımı yönünden çok yoğunluklu ilden az yoğunluklu ile olacak şekilde Bakanlıkça uygun görülmesi halinde izin verilir. Bu madde kapsamında yapılan uzman hekim kadro devri sayısı ve karşılıklı değişim yapılan kadro sayısının il içi ve il dışı toplamı, devreden kuruluşun toplam uzman hekim kadro sayısının %20'sinin üzerinde olamaz. Hastanenin ve tıp merkezinin faaliyete devam etmesi için zorunlu asgari uzman hekim kadroları ile özellikle ünite ve birimlerin asgari uzman hekim kadrolarının devrine izin verilmez. Özel hastanelerin ve tıp merkezlerinin bu fıkra kapsamında ruhsatlarına işlenen kadrolar tekrar bu fıkra kapsamında işleme alınmaz." Maddesi ile
- "Özel hastanede kardiyoloji veya kardiyovasküler cerrahi uzmanlık dalları için çalışma şekline bakılmaksızın yalnızca bir uzman hekim bulunduğu ilgili yoğun bakım ünitesi kurulması zorunlu değildir."
- "Özel hastanelerde kullanılan ilaç ve tıbbi malzeme bedelleri piyasa rayiç bedellerinin üzerinde olamaz." Maddeleridir.

Uzaktan Sağlık Hizmetlerinin Sunumuna Dair Yönetmelik

Uzaktan Sağlık Hizmetlerinin Sunumuna ilişkin uygulama sınırlarının çizilmesi büyük önem taşımaktadır. Yönetmelik maddelerine kısaca değinmek gerekirse önemli maddeleri;

- Yönetmeliğin amacı, sağlık hizmetinin mekândan ve coğrafyadan bağımsız olarak ve çağdaş tıbbi teknolojiye dayanarak sunulmasına hizmet etmek üzere; uzaktan sağlık hizmetinin kapsamına, uzaktan sağlık hizmeti sunacak sağlık tesislerine izin verilmesine, uzaktan sağlık bilgi sisteminin geliştirilmesine, tescil edilmesine, sağlık tesislerinin bu kapsamda denetlenmesine ilişkin usul ve esasları düzenlemektir.
- Sağlık tesisi, sağlık meslek mensubunun uzaktan sağlık bilgi sistemine bağlanabilmesi için gerekli altyapı ve teknik donanım imkânlarını sağlar. Uzaktan sağlık hizmeti sunumu için gerekli olan altyapı ve teknik donanım gibi hususlara ilişkin kriterler, Bakanlık tarafından belirlenir.
- Niteliği itibarıyla uzaktan sağlık hizmeti sunumuna elverişli olmak kaydıyla, aşağıdaki hizmetler uzaktan sunulabilir:
 - a) Uzaktan sağlık hizmeti talep eden kişi, uzaktan sağlık hizmetinin elverdiği ölçüde muayene edilebilir; kişinin tıbbi gözlem, izlem ve takibi ile değerlendirmesi yapılabilir, teşhis edilmiş hastalıkları kontrol edilebilir; tıbbi danışmanlık verilebilir; konsültasyon veya ikincil görüş talep edilebilir. Gerekli durumlarda, kişiye bir sağlık kuruluşuna fiziken müracaat etmesi önerilebilir.
 - b) Hastalıkların uzaktan yönetimi ve takibi için kişinin kan şekeri ve kan basıncı gibi klinik parametreleri değerlendirilebilir, izlenebilir, tedavi ve ilaç yönetimi sağlanabilir.
 - c) Sağlığın korunmasına ve takibine, sağlıklı yaşamın desteklenmesine, psikososyal destek hizmetlerinin sağlanmasına yönelik hizmetler verilebilir.
 - ç) Sağlık riski artan veya ileri yaşlı kişilerin çok yönlü değerlendirilmesi ve takibi yapılabilir.

- d) Teknolojik imkânların elvermesi ve Bakanlıktan gerekli izinlerin alınması koşuluyla kişilere, Bakanlıkça belirlenen girişimsel veya cerrahi operasyon hizmetleri sunulabilir.
- e) Endemik veya epidemik salgınlarda ulusal nitelikteki kılavuzlar doğrultusunda kişilerin sağlığının korunmasına yönelik gerekli tıbbi işlemler yürütülebilir.
- f) Giyilebilir teknolojiler ve diğer tıbbi cihazlar ile sağlık hizmeti talep eden kişinin sağlık verileri ölçülebilir ve takip edilebilir.
- g) **Hekim tarafından değerlendirilen kişiye, hekimince e-reçete ve e-rapor tanzim edilebilir.**

(2) Sağlık tesisi, uzaktan sağlık hizmetine ilişkin aynı branşta faaliyet izin belgesi sahibi olması koşuluyla bir başka sağlık tesisindeki sağlık hizmeti talep eden kişiye uzaktan sağlık hizmeti sunabilir.

- Uzaktan sağlık hizmeti sunmak isteyen sağlık tesisine gerekli şartları sağlaması hâlinde Bakanlıkça uzaktan sağlık hizmeti faaliyet izin belgesi verilir. Faaliyet izni, sağlık tesisinin mevcut faaliyet izin belgesine işlenir.

Hastanın bilgilendirilmesi

Uzaktan sağlık hizmeti alacak kişi, uzaktan sağlık hizmeti sunulmaya başlanmadan önce ve sunulacak olan sağlık hizmetinin niteliğine uygun düştüğü ölçüde:

- a) Uzaktan sağlık hizmeti sunacak sağlık meslek mensubunun kimliği ve var ise uzmanlığı,
- b) Sağlık meslek mensubunun kendisi ile fiziksel olarak aynı ortamda bulunmayacağı,
- c) Uzaktan sağlık hizmetinin yüz yüze verilen sağlık hizmetinin muadili olamayacağı,
- ç) Uzaktan sağlık hizmeti ile uygulamalı tedavilerin farklı olduğu,
- d) Devam eden bir tedaviyi aksatacak şekilde uzaktan sağlık hizmetinden faydalanılamayacağı,
- e) Acil tıbbi durumlarda uzaktan sağlık hizmeti yerine en yakın acil servise başvurulması gerektiği,
- f) Uzaktan sağlık hizmetinin ücreti, verilecek hizmetin kapsamı, hizmetin herhangi bir sağlık sigortası kapsamında karşılanıp karşılanmayacağı,
- g) Tarafların açık rızası olmaksızın uzaktan sağlık hizmeti sunumuna ilişkin ses veya görüntü kaydı alınmasının yasak olduğu; ancak, kişisel sağlık verilerinin işlenmesine ilişkin mevzuat uyarınca alınan sağlık hizmetine ilişkin kayıtların tutulacağı, kişisel verilerin korunması mevzuatına ve mahremiyete uygun olarak Sağlık Bakanlığı bilgi sistemine aktarılacağı,
- ğ) Uzaktan sağlık hizmeti sunumunun başlayabilmesi için uzaktan sağlık bilgi sisteminin kamera ve/veya mikrofon erişimine izin verilmesinin istenebileceği,
- h) Taraflar arasında ses ve/veya görüntünün iletilmemesi hâlinde, uzaktan sağlık hizmetinin başlamayabileceği, başlamış ise devam ettirilemeyeceği,
- ı) Tıbbi veya hukuki sebeplerle karşı tarafa bilgi verilerek uzaktan sağlık hizmetinin her zaman sonlandırılabilirliği,
- i) Uzaktan sağlık hizmeti veren kişinin, uzaktan sağlık hizmeti sunumunda kullandığı bilişim sistemlerinin, kullanıcı adı ve parolalarının güvenliğini sağlamakla bizzat sorumlu olduğu,
- j) Verilecek sağlık hizmetinin mâhiyet ve sonuçları, konularında bilgilendirilir.

(2) Bilgilendirme, sağlık hizmeti talep eden kişi tarafından anlaşılacak sade bir dil ile yapılmalıdır.

(3) Sağlık hizmeti sunumu kapsamında yerine getirilmesi gereken aydınlatma yükümlülüğüne ilişkin genel usul ve esaslar saklıdır.

Kimlik doğrulama

- (1) Sağlık tesisi, uzaktan sağlık hizmeti sunumu kapsamında hizmet alan kişinin kimliğini doğrulamaya yönelik gerekli tedbirleri alır. Sağlık tesisi tarafından ilaveten ikincil bir kimlik doğrulaması altyapısı veya aracı kullanılabilir.
- (2) Sağlık meslek mensubu, uzaktan sağlık hizmeti alan kişiden resmi kimlik belgesini kamera üzerinden göstermesini talep edebilir. Sağlık meslek mensubu, sağlık hizmeti talep eden kişinin kimliğinden şüphe duyduğu takdirde, kimliğini doğrulamasını isteyebilir. Bu talebin yerine getirilmemesi hâlinde uzaktan sağlık hizmeti vermeyebilir, başlamış olan hizmeti sonlandırabilir.

Hak ve sorumluluklar

- (1) Uzaktan sağlık hizmeti sunumu esnasında sağlık meslek mensubunun veya sağlık hizmeti alan kişinin bulunduğu ortamda hasta veya sağlık meslek mensubu ile yapılan görüşmeyi görebilecek ve/veya duyabilecek üçüncü bir kişinin olması hâlinde sağlık meslek mensubu ve/veya sağlık hizmeti alan kişi, konu hakkında karşı tarafı bilgilendirmekle yükümlüdür.
- (2) Uzaktan sağlık hizmeti alan kişi, tıbbî geçmişi ile sağlık durumu ile ilgili talep edilen bilgileri doğru, anlaşılır bir şekilde ve detaylı olarak sağlık meslek mensubuna anlatmakla yükümlüdür.
- (3) Bu Yönetmelik kapsamında sağlık hizmeti sunan sağlık meslek mensubunun bilgi ve iletişim teknolojileri hakkında gerekli donanımına sahip ve teknoloji okuryazarlığının uzaktan sağlık hizmeti sunumu için yeterli olduğunu izlemekten ve temin etmekten, ayrıca gerekli yetkinliğe sahip olmayan sağlık meslek mensuplarını eğitmekten sağlık hizmet sunucusunun niteliğine göre sağlık tesisi veya müdürlük sorumludur.

Kişisel verilerin korunması

- (1) Uzaktan sağlık hizmeti sunumunda hasta mahremiyetinin ve kişisel verilerinin korunmasından hizmeti veren sağlık tesisi ve sağlık meslek mensubu sorumludur.
- (2) Veri sorumlusu ve veri işleyen sıfatlarını haiz kişiler, bu Yönetmelik kapsamında sundukları hizmetler aracılığıyla elde ettikleri kişisel verileri 24/3/2016 tarihli ve 6698 sayılı Kişisel Verilerin Korunması Kanunu ve ilgili mevzuatına uygun bir şekilde işler, bu verilerin güvenliğini sağlamaya yönelik her türlü teknik ve idari tedbiri alır ve ilgili kişilere karşı aydınlatma yükümlülüklerini yerine getirirler.
- (3) Bu Yönetmelik kapsamında sunulan sağlık hizmetleri, her iki tarafın açık rızası olmaksızın görüntülü veya sesli olarak kayıt altına alınamaz, hizmet esnasında fotoğraf çekilemez.
- (4) Tarafların açık rızası olması hâlinde sunulan uzaktan sağlık hizmetine ilişkin görüntülü veya sesli kayıt alınabilir. Kayıtlar, uzaktan sağlık hizmeti veren sağlık tesisinde veya Bakanlığın izin verdiği güvenli veri merkezlerinde saklanır. Kanunen izin verilen mercilere ve idarî bir soruşturma kapsamında Bakanlık müfettişlerine bu kayıtlara erişim izni verilir. Bu kapsamda alınmış olan görüntülü veya sesli kayıtlar, oniki aydan fazla saklanamaz ve sürenin dolması ile birlikte ayrıca bir bildirimle gerek olmaksızın silinir.

Kayıt, bildirim ve iz kaydı

- (1) Uzaktan sağlık hizmeti kapsamında sağlık tesisine başvuran kişiler için uzaktan sağlık hizmetine ilişkin iş ve işlemler dijital ortamda kaydedilir ve kişisel verilerin korunmasına dair mevzuatta yer alan istisnai düzenlemeler saklı kalmak kaydıyla, kaydedilen veriler, ilgili mevzuatı uyarınca Bakanlıkça belirlenen usul ve esaslar çerçevesinde Bakanlık merkezî sağlık veri sistemine gönderilir.
- (2) Bakanlık tarafından kurulan kayıt ve bildirim sistemi ile Bakanlıkça yapılacak diğer iş ve işlemlere esas olmak üzere talep edilen bilgi ve belgeler, sağlık tesisleri tarafından Bakanlığa gönderilir.

- (3) Uzaktan sağlık hizmeti alımı esnasında Bakanlıkça belirlenen iz kaydı bilgileri sağlık tesisi tarafından sağlık tesisinin tabi olduğu mevzuatta belirtilen süre boyunca saklanır.

Mecliste görüşülen Şiddet ve Malpractis e ilişkin yasa tasarısı getirileri oldukça önemlidir.

İlgili yasa tasarısını ekte tarafınıza sunuyorum. Tasarıya bağlı olarak;

Öncelikle Yasa Tasarısı ile amaçlanan;

Uzmanların yer aldığı bir kurul oluşturulmak suretiyle sağlık mesleğinin icrası kapsamında işlenebilen suçlar bakımından cezai soruşturma yapılabilmesi, bu kurulun iznine bağlanmaktadır. Bununla birlikte, hatalı tıbbi işlem ve uygulamalar nedeniyle Devletin ödediği tazminatın ilgili sağlık çalışanından rücu talep edilmesi konusunda da aynı kurul tarafından karar verilmesi öngörülmektedir.

Getirilen Yenilikler

MADDE 9 ile 5271 sayılı Ceza Muhakemesi Kanununun 100 üncü maddesinin üçüncü fıkrasına eklenen bentlerle kadına karşı işlenen kasten yaralama suçu ile sağlık kurum ve kuruluşlarında görev yapan personele karşı görevleri sırasında veya görevleri dolayısıyla işlenen kasten yaralama suçları tutuklamaya ilişkin katalog suçlar arasına alınmaktadır. İlgili düzenleme ile birlikte; somut delillere dayanan kuvvetli şüphe sebeplerinin varlığı halinde tutuklama nedeni varsayılabilmesi sağlanmıştır.

MADDE 14 ile birlikte; kamu kurum ve kuruluşları ve Devlet üniversitelerinde görev yapan hekim ve diş hekimleri ile diğer sağlık meslek mensuplarının sağlık mesleğinin icrası kapsamında yaptıkları muayene, teşhis ve tedaviye ilişkin tıbbi işlem ve uygulamalar sebebiyle yapılacak adli soruşturmalar bakımından kabul edilmiş izin usulleri bulunmasına rağmen, özel sağlık kurum ve kuruluşları ile vakıf üniversitelerinde görev yapan söz konusu meslek mensupları hakkında yürütülecek benzer nitelikteki soruşturmalar bakımından herhangi bir izin usulü bulunmaması nedeniyle tüm sağlık personellerinin soruşturmalarında izin usulüne bağlanması sağlanmıştır.

Bu doğrultuda; Özel sağlık kurum ve kuruluşları ve vakıf üniversitelerinde görev yapan hekim ve diş hekimleri ile diğer sağlık meslek mensuplarının sağlık mesleğinin icrası kapsamında yaptıkları muayene teşhis ve tedaviye ilişkin tıbbi işlem ve uygulamalar sebebiyle yapılacak adli soruşturmalar bakımından izin usulü getirilmekte ve izin verme yetkisi Sağlık Bakanlığı bünyesinde kurulan Mesleki Sorumluluk Kuruluna verilmektedir.

ESKİDEN BÖYLE BİR DÜZENLEME YER ALMAMAKTA; DOLAYISIYLA ÖZEL SAĞLIK KURUM VE KURULUŞLARINDA ÇALIŞANLAR HAKKINDA DOĞRUDAN SAVCILILIĞA BAŞVURULMAKTA, İZİN USULÜ DE UYGULANMAMAKTAYDI.

Kurulun soruşturma izni verilmesine veya verilmemesine ilişkin kararları ile işleme koymama kararlarına karşı tebliğden itibaren on gün içinde Ankara Bölge İdare Mahkemesine itiraz edilebilecektir. Düzenlemede, 4483 sayılı Kanun hükümlerinin uygulanacağı belirtiltiğinden, haliyle Kanunun 9 uncu maddesi uyarınca, bu kapsamda yapılan itirazlar da öncelikle incelenecek ve en geç üç ay içinde kesin olarak karara bağlanacaktır.

İLGİLİ DÜZENLEMEDE BİRLİK SAĞLANMASI AMACIYLA; Her basamaktan kamu veya özel sağlık hizmet sunucusunda görev yapan, ister askeri ister sivil olsun, tüm hekim, diş hekimi ve diğer sağlık meslek mensupları hakkında yapılacak soruşturmalarda bu usul uygulanacaktır. ANCAK; KANUNDA İSTİSNA BULUNMAKTADIR. İLGİLİ İSTİSNA; 2547 sayılı Yükseköğretim Kanununun 53 üncü maddesinde yer alan soruşturma usulüne tabi olanlara ilişkindir.

Bu maddenin birinci fıkrasıyla getirilen izin usulü uygulanmayacak, bu kişiler anılan Kanunun 53 üncü maddesinde düzenlenen usule tabi olmaya devam edecektir. Yükseköğretim personelinin görevleri dolayısıyla ya da görevlerini yaptıkları sırada işledikleri ileri sürülen suçlar hakkında özel soruşturma usulü öngörülmüştür. Dolayısıyla 53 üncü madde, sadece ve sadece görev dolayısıyla veya görevin yapıldığı sırada işlendiği iddia edilen suçlar bakımından uygulanabilecektir. Cumhuriyet başsavcılar, yükseköğretim personelinin görevleri dolayısıyla suç işlediklerine ilişkin herhangi bir ihbar veya şikayet aldıklarında veya böyle bir durumu öğrendiklerinde; ivedilikle toplanması gerekli ve kaybolma ihtimali bulunan delilleri tespitten başka hiçbir işlem yapmayarak ve hakkında ihbar veya şikayette bulunulan yükseköğretim personelinin ifadesine başvurmaksızın evrakın bir örneğini, soruşturma izni verilmesi ve sonrasında 2547 sayılı Kanunun 53 üncü maddesine göre soruşturma usulünün işletilmesi için yetkili mercilere göndermesi gerekmektedir. Bu arada, Cumhuriyet başsavcılar dışındaki diğer kamu görevlileri de, yükseköğretim personeline görevleri dolayısıyla suç işlendiğini ihbar, şikayet, bilgi, belge veya bulgulara dayanarak öğrendiklerinde durumu izin vermeye yetkili mercie iletmekle yükümlüdür. İzin vermeye yetkili merci (duruma göre Başkan veya Rektör), yükseköğretim personelinin görevleri dolayısıyla suç işlediklerini bizzat veya Cumhuriyet başsavcılığı ya da diğer kamu görevlileri vasıtasıyla iletilen ihbar, şikayet üzerine öğrendiğinde bir ön inceleme başlatması gerekir. Ancak (ihbar veya şikayet eden kişilerin konu ile ilgili olarak daha önceki ön inceleminin neticesini etkileyecek yeni belge sunması hali hariç) ilgili ihbar ve şikâyetler konusunda daha önce sonuçlandırılmış bir ön inceleme olması halinde, Cumhuriyet başsavcılıkları ile izin vermeye yetkili mercilerin müracaatı işleme koymaması gerekir. Yetkili merci bu rapor üzerine gerekçeli olarak soruşturma izni verilmesine veya verilmemesine karar verir. İLGİLİ DÜZENLEMELER 2547 SAYILI KANUNDA YER ALMAYIP 4483 SAYILI KANUNA ATIF YAPMAKTADIR. BU NEDENLE; ilgili süre 30 günken yeni düzenleme ile 60 güne çıkarılmıştır. YÖK ilgili düzenleme 4483 sayılı Kanuna atıf yapılmaktadır. AYRICA 4483 sayılı Kanunun 7 nci maddesinde yer alan soruşturma iznine dair otuz günlük karar verme süresinin altmış; zorunlu hallerde kullanılabilecek olan on beş günlük uzatma süresinin ise otuz gün olarak uygulanmasına imkân tanınması İLGİLİ MEVZUATTA YER ALAN SAĞLIK ÇALIŞANLARI İÇİN DE GEÇERLİ OLACAKTIR. 2547 SAYILI KANUNA TABİ SAĞLIK ÇALIŞANLARI İÇİN; Yetkili merci, soruşturma izni verilmesine veya verilmemesine ilişkin kararını Cumhuriyet başsavcılığına, hakkında inceleme yapılan yükseköğretim personeline ve arsa şikayetçiye bildirmesi gerekir. Soruşturma izni verilmesine ilişkin karara karşı hakkında inceleme yapılan yükseköğretim personeli; soruşturma izni verilmemesine ilişkin karara karşı ise Cumhuriyet başsavcılığı veya şikayetçi yetkili merciin kararının tebliğinden itibaren on gün içinde itiraz yoluna gidebilir. - 4483 sayılı Kanunun 15 inci maddesi uyarınca, yükseköğretim personeli hakkındaki ihbar ve şikayetlerin, ihbar veya şikayet edilen yükseköğretim personelinin mağdur etmek amacıyla ve uydurma bir suç isnadı suretiyle yapıldığının 53 üncü maddedeki özel soruşturma süreci sonucunda anlaşılması veya ilgili yükseköğretim personelinin yargılanması sonucunda yargı kararı ile sabit olması halinde, haksız isnatta bulunanlar hakkında yetkili ve görevli Cumhuriyet başsavcılığınca re'sen soruşturma yürütülebileceği gibi, yükseköğretim personeli de kamu davası açılması için Cumhuriyet başsavcılığına başvurma ve haksız isnatta bulunanlar hakkında genel hükümlere göre tazminat davası açma hakkına sahiptir. 4483 sayılı Kanunun ilgili düzenlemeleri uyarınca soruşturma öncesi izlenmesi gereken usulün işletilmesi gerekir. Bu durumda, ilgisine göre soruşturma izni vermeye yetkili başkan veya rektörden izin alınması, izin vermeye yetkili merci olarak başkan veya rektör tarafından ön inceleme yapmak üzere bir veya birden fazla kişinin görevlendirilmesi, söz konusu kişi/kişilerce hazırlanacak rapor sonrasında soruşturma aşamasına geçilmesi için izin verilmesi

veya izin verilmemesi yönünde karar verilmesi, verilen kararların ilgililerce itiraza konu edilebilmesi, süresi içinde itiraz edilmemesi veya itirazın reddi/kabulü üzerine verilen kararın kesinleşmesi, kesinleşen kararın soruşturma izni verilmemesi yönünde olması halinde soruşturma aşamasına geçilmemesi, kesinleşen kararın soruşturma izni verilmesi yönünde olması halinde ancak 2547 sayılı Kanunun 53 üncü maddesinde düzenlenen ilk soruşturma ve sonrasında da son soruşturma usulünün işletilmesi gerekmektedir.

Madde 15 ile; geçici bir madde eklenmek suretiyle uygulamada sorun yaşanmaması, hak ihlallerine neden olmaması adına izin alınmasına yönelik yenilik getiren düzenlemenin haklarında kesinleşmiş bir soruşturma kararı bulunan kişilere uygulanamayacağı, Mevcut soruşturma ve kovuşturmalara aynen devam edileceği, Haklarında kesin soruşturma kararı verilmeyen, için soruşturma veya kovuşturmaya devam edebilmesi için Mesleki Sorumluluk Kurulundan izin istenilmesi gerektiği,

Özel sağlık kurum ve kuruluşları, vakıf üniversitelerinde görev yapan hekim ve diş hekimleri ile diğer sağlık meslek mensupları bakımından muhakeme şartı niteliğine haiz izin müessesesi getirildiği için bu kişiler için sağlık mesleği icrası kapsamında yaptıkları muayene, teşhis ve tedaviye ilişkin tıbbi işlem ve uygulamalar nedeniyle halen yürütülen soruşturma veya kovuşturmalarda Mesleki Sorumluluk Kurulundan izin alınması gerekmektedir. Kamu kurum ve kuruluşları ile Devlet üniversitelerinde görev yapan hekim ve diş hekimleri ile diğer sağlık meslek mensuplarının sağlık mesleğinin icrası kapsamında yapmış oldukları muayene, teşhis ve tedaviye ilişkin tıbbi işlem ve uygulamalar nedeniyle idare tarafından ödenen tazminattan dolayı açılan ve ilgili kanun yürürlüğe girdiğinde görülmekte olan rücu davalarında karar verilmek üzere Mesleki Sorumluluk Kuruluna başvurusu için davacıya 2 aylık süre verilecektir. Bu süre içinde kurula başvurulmazsa dava usulden reddedilecek, yargılama gideri taraflar üzerinde kalacak, davacı aleyhine vekalet ücretine hükmedilemeyecektir.

7394 Sayılı Hazineye Ait Taşınmaz Malların Değerlendirilmesi ve Katma Değer Vergisi Kanununda ve Kanun Hükmünde Kararnamelerde Değişiklik Yapılmasına Dair Kanun ile (www.resmigazete.gov.tr/eskiler/2022/04/20220415-1.htm);

Ayrı bir muayenehanesi ve organizasyonu bulunmaksızın faaliyetlerini özel sözleşmelere istinaden yürüten hekimler ile tıpta uzmanlık mevzuatına göre uzman olan kişilerin elde ettikleri gelirler, serbest meslek kazancı olarak vergilendirilecektir. İlgili düzenlemeye göre **Şirket kurarak çalışan hekimlere normal şirket vergileri dışında yeni bir vergilendirme** gelmiştir. ANCAK, Şirket kurularak hasta muayene ediliyorsa; yani muayenehane kapsamında ise ilgili vergi kapsamında olmayacak, ama şirket kurarak başka hastanelerde çalışan ya da anlaşma yaparak fatura kesen hekimler ek vergi ödeyecektir.

Şirket ortağı olan veya mesleğini serbest olarak icra eden hekimler ile tıpta uzmanlık mevzuatına göre uzman olan kişiler, özel hukuk kişileri veya vakıf üniversitelerine ait sağlık kurum ve kuruluşları bünyesinde hizmet vermeleri halinde sözleşmelerinde aksine hüküm olmadığı takdirde sigortalı sayılacaklardır.

DERGİMİZ YENİLENDİ

<https://www.turkjem.org/>

SOCIETY OF
ENDOCRINOLOGY AND
METABOLISM OF
TURKEY

TJEM
TURKISH JOURNAL OF ENDOCRINOLOGY AND METABOLISM



TJEM

**“TURKJEM 6. ÖDÜLLÜ
MAKALE YARIŞMASI”**

ÖDÜLLER

- BİRİNCİLİK ÖDÜLÜ 12.500 TL
- İKİNCİLİK ÖDÜLÜ 10.000 TL
- ÜÇÜNCÜLÜK ÖDÜLÜ 7.500 TL

Yarışma için gerekli bilgilere yarışma yönergelerinden ulaşabilirsiniz:
<https://www.temd.org.tr/hakkimizda/yonergeler/odullu-makale-yarismasi-yonergesi>

ULUSAL VE ULUSLARARASI BİLİMSEL KONGRE VE SEMPOZYUMLAR

- 7 - 10 Ağustos 2022
International Congress of Neuroendocrinology
ICN, Glasgow, Scotland, UK
<https://icn2022.org/>
- 25-28 Ağustos 2022
International Congress of Endocrinology (ICE 2022), Online
<https://www.isendo.org/event/ice-2022-singapore/>
- 3-4 Eylül 2022
TEMĐ 1. Kemik Endokrinolojisi, Osteoporoz ve Metabolik Kemik Hastalıkları Sempozyumu (Yüzyüze-Online)
Point Barbaros Otel, İstanbul
<https://www.temd.org.tr/haberler/temd-1-kemik-endokrinolojisi-osteoporoz-ve-metabolik-kemik-hastaliklari-sempozyumu>
- 7 - 10 Eylül 2022
20th Congress of the European Neuroendocrine Association - ENEA 2022 Lyon, France
<https://eneassoc.org/>
- 10 - 13 Eylül 2022
44th Annual Meeting of the European Thyroid Association (ETA)
Brussels, Belgium
<http://www.eta2022.com/>
- 19 - 23 Eylül 2022
58th Annual Meeting - European Association for the Study of the Diabetes
Stockholm, Sweden
<https://www.easd.org/annual-meeting/easd-2022.html>
- 24 Eylül 2022
TEMĐ HİPOFİZ HASTALIKLARI SEMPOZYUMU - "Hipofiz Yetmezliği" (Yüzyüze-Online)
Wyndham Grand Kayseri
<https://www.temd.org.tr/haberler/temd-hipofiz-hastaliklari-sempozyumu>
- 28 Eylül-2 Ekim 2022
Kardiyovasküler Hastalıklara Multidisipliner Yaklaşım Kongresi (KMK22)
Kaya Artemis Kongre Merkezi, Kıbrıs
<https://www.tgkv.org/kongre/#1650314305709-d8867986-1728>
- 29 Eylül - 2 Kasım 2022
30th ESE Postgraduate Training Course in Clinical Endocrinology, Diabetes and Metabolism 2022
Tbilisi, Georgia
<https://www.es-hormones.org/events-deadlines/es-hormones/30th-es-postgraduate-course-in-clinical-endocrinology-diabetes-and-metabolism/>
- 12 - 15 Ekim 2022
VII. Ulusal Diyabetik Ayak Enfeksiyonları Simpozyumu (UDAIS 2022)
Mirage Park Resort Hotel, Kemer-Antalya
<https://www.udais2022.org>
- 14 - 16 Ekim 2022
Mezuniyet Sonrası Eğitim Kursu - ENDOKURS 6
Adana HiltonSA
<http://endokurs.org/>
- 19 - 23 Ekim 2022
24. Ulusal İç Hastalıkları Kongresi
Titanic Otel & Kongre Merkezi, Antalya
<https://2022.ichastaliklari.org/tr/>
- 19 - 23 Ekim 2022
91st Annual Meeting of the American Thyroid Association Palais de Congres de Montreal Montreal, Quebec, Canada
<https://www.thyroid.org/91st-annual-meeting-ata/>
- 20 - 23 Ekim 2022
EndoBridge 2022
Cornelia Diamond Kongre Merkezi, Antalya
<https://www.endobridge.org/>
- 4-5 Kasım 2022
17. Hipofiz Sempozyumu
Ankara Üniversitesi Tıp Fakültesi Morfoloji Binası
Abdülkadir Noyan Konferans Salonu, Ankara
<https://hipofiz2022.org/>
- 02 - 05 Mart 2023
12. Ulusal Obezite ve Eşlik Eden Hastalıklar Kongresi
Antalya
<https://obezitekongresi.org/>
- 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.es-hormones.org/events-deadlines/european-congress-of-endocrinology/ece-2023/>

ÜYELERİMİZDEN LİTERATÜR SEÇMELERİ

THE STIMULATORY EFFECTS OF GLUCAGON ON CORTISOL AND GH SECRETION OCCUR INDEPENDENTLY FROM FGF-21

Ilyas Akkar¹, Zuleyha Karaca², Serpil Taheri³, Kursad Unluhizarci¹, Aysa Hacioglu¹, Fahrettin Kelestimur⁴

Endocrine. 2022 Jan;75(1):211-218. doi: 10.1007/s12020-021-02829-4. Epub 2021 Sep 25. PMID: 34562190 DOI: 10.1007/s12020-021-02829-4

Purpose: Glucagon stimulation test (GST) is used to assess the hypothalamo-pituitary-adrenal (HPA) and growth hormone (GH) axes with an incompletely defined mechanism. We aimed to assess if glucagon acted through fibroblast growth factor-21 (FGF-21) to stimulate cortisol and GH secretion. The secondary outcome was to determine the relationship of FGF-21 with variable GH responses to GST in obesity.

Methods: A total of 26 healthy participants; 11 obese (body mass index (BMI) > 30 kg/m²) and 15 leans (BMI <25 kg/m²) were included. Basal pituitary and target hormone levels were measured and GST was performed. During GST, glucose, insulin, cortisol, GH, and FGF-21 responses were measured.

Results: The mean age of the participants was 26.3±3.6 years. Glucagon resulted in significant increases in FGF-21, glucose, insulin, cortisol, and GH levels. The levels of basal cortisol, GH, FGF-21, and IGF-1 were similar in the two groups. The peak GH and area under the curve (AUC)_(GH) responses to GST in the obese group were lower than those of the normal-weight group with a different pattern of response. There were no differences between the groups in terms of peak cortisol, AUC_(cortisol), peak insulin, AUC_(insulin), peak FGF-21, and AUC_(FGF21). Obesity was associated with significantly increased glucose and insulin responses and slightly decreased FGF-21 response to glucagon.

Conclusion: Obesity was associated with blunted and delayed GH, but preserved cortisol responses to GST. This is the first study showing that glucagon stimulates the HPA and GH axis independently from FGF-21. The delayed GH response to GST in obesity does not seem to be related to FGF-21.

BEIGE ADIPOCYTE AS THE FLAME OF WHITE ADIPOSE TISSUE: REGULATION OF BROWNING AND IMPACT OF OBESITY

Alev Eroglu Altinova¹

J Clin Endocrinol Metab. 2022 Apr 19;107(5):e1778-e1788. doi: 10.1210/clinem/dgab921. PMID: 34967396 DOI: 10.1210/clinem/dgab921

Beige adipocyte, the third and relatively new type of adipocyte, can emerge in white adipose tissue (WAT) under thermogenic stimulations that is termed as browning of WAT. Recent studies suggest that browning of WAT deserves more attention and therapies targeting browning of WAT can be helpful for reducing obesity. Beyond the major inducers of browning, namely cold and β 3-adrenergic stimulation, beige adipocytes are affected by several factors, and excess adiposity per se may also influence the browning process. The objective of the present review is to provide an overview of recent clinical and preclinical studies on

the hormonal and nonhormonal factors that affect the browning of WAT. This review further focuses on the role of obesity per se on browning process.

CLINICAL CHARACTERISTICS OF PATIENTS WITH SUBACUTE THYROIDITIS AND FACTORS AFFECTING DEVELOPMENT HYPOTHYROIDISM AFTER SUBACUTE THYROIDITIS

İnan Anaforoğlu¹, Murat Topbas²

Thyroid Disease / Research Paper DOI: <https://doi.org/10.5114/aoms/145481>

Introduction: Subacute thyroiditis (SAT) is typically a self-limiting, inflammatory disease. Patients can experience hypothyroidism during or after an episode. We examined the clinical characteristics based on laboratory and imaging studies in patients with SAT and possible factors contributing to the development of permanent hypothyroidism after SAT.

Material and methods: We retrospectively examined medical records of patients diagnosed with SAT at one medical facility in Turkey. Patients known to have previous thyroid disease, those with <6 months of follow-up after resolution of SAT, and those who lacked sufficient data for analysis were excluded. Of the 283 patients identified 119 met all inclusion criteria. We extracted data on demographics, laboratory tests, neck pain and other symptoms, ultrasonography findings, medication use, and SAT recurrence. We examined the relationships between these variables and development of permanent hypothyroidism.

Results: The patients were 42 years old on average, and 78% were women. Most patients (70%) described flu-like symptoms before neck pain started; accordingly, 57% had initially visited a specialty other than endocrinology before SAT was diagnosed, and 28% had received antibiotics for misdiagnosed upper respiratory tract infection. In all, 10 patients (8.4%) developed permanent hypothyroidism after SAT. These patients had received steroids significantly longer than did those without permanent hypothyroidism (mean 17.7 vs. 8.9 weeks; $P = .021$). Development of hypothyroidism was significantly lower among patients with thyrotoxicosis.

Conclusions: The diagnosis of SAT can be challenging. Patients who require longer-term steroids after SAT and who have recurrent SAT should be closely monitored for development of hypothyroidism.

WITHDRAWAL OF DOPAMINE AGONIST TREATMENT IN PATIENTS WITH HYPERPROLACTINAEMIA: A SYSTEMATIC REVIEW AND META-ANALYSIS

Ida B Andersen¹, Marie G R Sørensen¹, Sema C Dogansen², Ku Cheol Ryong³, Lucio Vilar⁴, Ulla Feldt-Rasmussen^{1,5}, Jesper Krogh¹

Clin Endocrinol (Oxf). 2022 Mar 9. doi: 10.1111/cen.14714. Online ahead of print. PMID: 35261059 DOI: 10.1111/cen.14714

Objective: To estimate the proportion of patients with persistent normoprolactinaemia following dopamine agonist (DA) withdrawal and to identify predictors of successful withdrawal in patients with hyperprolactinaemia.

Design, patients, and measurements: A systematic review of observational eligible studies were identified by searching PubMed and Embase. The primary outcome was the proportion of patients with normoprolactinaemia after cessation of DA treatment. Secondary outcome included the proportion of patients with normoprolactinaemia after DA withdrawal using individual patient data. Risk of bias was assessed by using Newcastle-Ottawa Scale. Pooled proportions were estimated using a random effects model in case $I^2 \leq 75\%$ or by reporting range of effects if $I^2 > 75\%$.

Results: Thirty-two observational studies enrolling 1563 patients were included. The proportion of patients with persistent normoprolactinaemia ranged from 0% to 75% ($I^2 = 84\%$). Heterogeneity was partly explained by age with more successful withdrawal in patients of higher age. Individual patient data analyses suggested that the proportion of patients with persistent normoprolactinaemia 6 months after DA withdrawal with a low maintenance dose and full regression of the prolactinoma was 87.7% (95% confidence interval [CI] = 60.7-97.1; $I^2 = 0\%$) and 58.4% (95% CI = 23.8-86.3; $I^2 = 75\%$) for microadenomas and macroadenomas, respectively.

Conclusions: The proportion of patients with persistent normoprolactinaemia following DA withdrawal treatment varied greatly, partly explained by the mean age of participants of the individual studies. Individual patient data analysis suggested that successful withdrawal was likely in patients with full regression of prolactinomas using a low maintenance dose before cessation.

DOES CONCOMITANT PROLACTIN MEASUREMENT INCREASE THE ACCURACY OF INFERIOR PETROSAL SINUS SAMPLING?

Tugce Apaydin¹, Mehmet Yasar², Feyyaz Baltacioglu³, Goncagul Haklar⁴, Dilek Gogas Yavuz²

Neuroradiology. 2022 Jul;64(7):1411-1418. doi: 10.1007/s00234-021-02886-6. Epub 2022 Jan 22. PMID: 35064296 DOI: 10.1007/s00234-021-02886-6

Introduction: Prolactin (PRL) measurement during inferior petrosal sinus sampling (IPSS) can be helpful to improve the accuracy. We aimed to evaluate the effect of measuring PRL levels as a predictor for the accuracy of IPSS and evaluate its impact on the lateralization of adenomas.

Methods: In this retrospective cohort study, we reviewed 51 patients who had undergone IPSS for the investigation of ACTH-dependent hypercortisolism.

Results: Forty-nine patients had proven Cushing's disease (CD), one had EAS, and the remaining one patient had adrenal adenoma. Forty-seven patients had an above 2 ACTH IPS/P ratio at baseline, and all the post-corticotropin-releasing hormone (CRH) ACTH IPS/P ratios of patients with proven CD were above 3. In these two patients whose ACTH IPS/P ratio at baseline was below 2, PRL IPS/P ratios were above 1.8 in only the dominant side, which was considered secondary to a prolactin intersinus gradient due to the biological effects of the tumor. PRL-adjusted ACTH IPS/P ratios were > 1.3 in all patients with proven CD; it was 0.7 in the patient with EAS. Surgically confirmed positive lateralization was observed in 55.1% of patients with the ACTH gradient, but when PRL-adjusted ACTH IPS/P ratios were used in addition to the ACTH gradient, the ratio increased to 67.3%.

Conclusion: Although PRL-adjusted ACTH IPS/P ratios can be helpful to improve the accuracy of results during IPSS procedures, a prolactin intersinus gradient towards the ACTH-dominant side in patients with CD may invalidate PRL as an indicator of pituitary venous outflow.

CAPILLARY MICROARCHITECTURAL CHANGES IN CUSHING'S SYNDROME

Tugce Apaydin¹, Yasemin Yalcinkaya², Can Ilgin³, Dilek Gogas Yavuz⁴

Microvasc Res. 2022 May;141:104323. doi: 10.1016/j.mvr.2022.104323. Epub 2022 Jan 22. PMID: 35074338 DOI: 10.1016/j.mvr.2022.104323

Purpose: Macrovascular alterations are prominent in Cushing's syndrome (CS). Microvascular abnormalities are yet to be established. This cross-sectional observational study aimed to evaluate microvascular changes in nailfold capillaries and their association with disease status and carotid intima-media thickness (CMT) as a marker of atherosclerosis.

Methods: A total of 70 patients with CS [46 (65.7%) ACTH-dependent pituitary adenoma and 24 (34.3%) adrenocortical adenomas] and 100 healthy controls were enrolled. The microvascular structure was evaluated using nailfold video-capillaroscopy (NVC).

Results: The median number of capillaries was less [10 mm (IQR: 2, min-max:7-14) vs. 11 mm (IQR: 2, min-max:9-19) ($p < 0.001$)], the median limb diameter and capillary width were wider in the CS group than in the controls ($p = 0.016$ and $p = 0.002$, respectively). Microhemorrhages within limited areas were more frequent in the CS group than in the controls ($p = 0.046$). Observed capillary changes were similar among the patients with CS with remission or active disease. CMT levels were higher in the CS group than in the controls and similar in subjects with active disease and remission. Univariate logistic regression analyses revealed that the number of capillaries and capillary widths were associated with body mass index (BMI), the presence of type 2 diabetes mellitus, HbA1c, and CMT.

Conclusion: Morphologic alterations present similarly in nailfold capillaries in subjects with CS regardless of disease status, resembling changes in chronic atherosclerotic diseases. Microvascular changes in nailfold capillaries measured using NVC can be used as a marker in the assessment of cardiovascular risk in patients with CS.

PREOPERATIVE PLASMAPHERESIS IN PATIENTS WITH GRAVES' DISEASE INTOLERANT TO ANTITHYROID DRUGS

Tugce Apaydin¹, Dilek Gogas Yavuz¹

Ther Apher Dial. 2021 Dec;25(6):877-883. doi: 10.1111/1744-9987.13639. Epub 2021 Mar 19. PMID: 33661574 DOI: 10.1111/1744-9987.13639

Antithyroid drugs (ATDs) are the mainstay of treatment for Graves' disease with possible detrimental adverse effects. Surgery or radioactive iodine (RAI) ablation is the second choice among the treatment options in cases of non-remission. Normalization of serum thyroid hormone levels as much as possible is required before surgery or RAI to prevent thyrotoxic crisis in patients with uncontrolled Graves' disease. In recent decades, therapeutic plasma exchange (TPE) has been used in the treatment of thyroid storm, drug-induced hepatotoxicity and agranulocytosis, or patients with hyperthyroidism scheduled for emergency surgery. TPE is an effective method to reduce serum FT3, FT4, and TRAB levels in severe hyperthyroid conditions. Although TPE-related complications are rare, the risk of bleeding needs to be taken into consideration in patients who were scheduled for surgery within 24 h after TPE. In terms of reducing intraoperative bleeding, patients can be referred to surgery 24-48 h after TPE, or fresh frozen plasma transfusion can be the preferred treatment for emergency cases.

THE ASSOCIATION OF FREE TESTOSTERONE LEVELS WITH CORONAVIRUS DISEASE 2019

Tugce Apaydin¹, Bahadır Sahin², Saida Dashdamirova¹, Ceyda Dincer Yazan¹, Onur Elbasan¹, Can Ilgin³, Hüseyin Bilgin⁴, Haydar Kamil Cam², Gunel Bahramzada⁵, Aleya Kucuk⁵, Goncagul Haklar⁵, Hulya Ilikso Gozu¹

Andrology. 2022 Jan 6. doi: 10.1111/andr.13152. Online ahead of print. PMID: 34994082 DOI: 10.1111/andr.13152

Background: Angiotensin-converting enzyme 2 and transmembrane protease serine 2 are critical factors of virus transmission. Expression of angiotensin-converting enzyme 2 is highest in testes, and testicular function and testosterone levels were affected by coronavirus disease 2019. Low testosterone levels are related to infections, especially respiratory tract infections, and could worsen clinical conditions by exacerbating cytokine storms and increasing pro-inflammatory cytokines.

Objectives: We aimed to evaluate the acute and chronic effects of coronavirus disease 2019 on gonadal functions. Our second aim was to detect the relationship between free testosterone levels and disease prognosis and determine the impact of low-free testosterone on admission to the intensive care unit.

Methods: Eighty-one patients with reverse-transcription polymerase chain reaction-confirmed coronavirus disease 2019 were enrolled. Twenty-nine patients were assessed again for 6 months post-coronavirus disease 2019 follow-up, and seven of them had a semen analysis. Serum follicle-stimulating hormone, luteinizing hormone, sex hormone-binding globulin, and total testosterone levels were measured.

Results: In this observational study, 71.6% (n = 58) of patients had low free testosterone levels at baseline, in which 69% were considered secondary hypogonadism. A longer length of hospitalization and increased inflammatory markers (d-dimer, high-sensitive C-reactive protein, and procalcitonin) were

detected in the low-free testosterone group. Follicle-stimulating hormone, total, free, and bioavailable testosterone levels were lower in patients who required admission to the intensive care unit. Free testosterone levels were inversely correlated with the length of hospitalization and prognostic disease factors. Oligozoospermia and impaired progressive motility were present in 42.8% (3/7) of the patients. In 6 months post-coronavirus disease 2019 follow-up, out of 29 patients, 48.2% still had low testosterone levels.

Conclusion: A high rate of hypogonadism (71.6%) was found, especially secondary hypogonadism, and about half of the patients had hypogonadism in the sixth months' follow-up. Low free testosterone levels were correlated with inflammatory parameters, and it is related to the intensive care unit admission. Studies with long-term follow-up data in larger groups are needed to determine persistent hypogonadism and impaired spermatogenesis.

PREOPERATIVE PLASMAPHERESIS IN PATIENTS WITH GRAVES' DISEASE INTOLERANT TO ANTITHYROID DRUGS

Tugce Apaydin¹, Dilek Gogas Yavuz¹

Ther Apher Dial. 2021 Dec;25(6):877-883. doi: 10.1111/1744-9987.13639. Epub 2021 Mar 19. PMID: 33661574 DOI: 10.1111/1744-9987.13639

Antithyroid drugs (ATDs) are the mainstay of treatment for Graves' disease with possible detrimental adverse effects. Surgery or radioactive iodine (RAI) ablation is the second choice among the treatment options in cases of non-remission. Normalization of serum thyroid hormone levels as much as possible is required before surgery or RAI to prevent thyrotoxic crisis in patients with uncontrolled Graves' disease. In recent decades, therapeutic plasma exchange (TPE) has been used in the treatment of thyroid storm, drug-induced hepatotoxicity and agranulocytosis, or patients with hyperthyroidism scheduled for emergency surgery. TPE is an effective method to reduce serum FT3, FT4, and TRAB levels in severe hyperthyroid conditions. Although TPE-related complications are rare, the risk of bleeding needs to be taken into consideration in patients who were scheduled for surgery within 24 h after TPE. In terms of reducing intraoperative bleeding, patients can be referred to surgery 24-48 h after TPE, or fresh frozen plasma transfusion can be the preferred treatment for emergency cases.

INTERACTION BETWEEN DIETARY FAT INTAKE AND METABOLIC GENETIC RISK SCORE ON 25-HYDROXYVITAMIN D CONCENTRATIONS IN A TURKISH ADULT POPULATION

Kubra Isgin-Atici^{1,2}, Buthaina E Alathari^{3,4}, Busra Turan-Demirci¹, Suleyman Nahit Sendur⁵, Incilay Lay^{6,7}, Basma Ellahi⁸, Mehmet Alikasifoglu^{9,10}, Tomris Erbas⁵, Zehra Buyuktuncer¹, Karani Santhanakrishnan Vimalaswaran^{3,11}

Nutrients. 2022 Jan 17;14(2):382. doi: 10.3390/nu14020382. PMID: 35057563 PMCID: PMC8778439 DOI: 10.3390/nu14020382

Previous studies have pointed out a link between vitamin D status and metabolic traits, however, consistent evidence has not been provided yet. This cross-sectional study has used a nutrigenetic approach to investigate the interaction between metabolic-genetic risk score (GRS) and dietary intake on serum 25-hydroxyvitamin D [25(OH)D] concentrations in 396 unrelated Turkish adults, aged 24-50 years. Serum 25(OH)D concentration was significantly lower in those with a metabolic-GRS ≥ 1 risk allele than those with a metabolic-GRS < 1 risk allele ($p = 0.020$). A significant interaction between metabolic-GRS and dietary fat intake (energy%) on serum 25(OH)D levels was identified ($P_{\text{interaction}} = 0.040$). Participants carrying a metabolic-GRS ≥ 1 risk allele and consuming a high fat diet ($\geq 38\%$ of energy = 122.3 ± 52.51 g/day) had significantly lower serum 25(OH)D concentration ($p = 0.006$) in comparison to those consuming a low-fat diet ($< 38\%$ of energy = 82.5 ± 37.36 g/d). In conclusion, our study suggests a novel interaction between metabolic-GRS and dietary fat intake on serum 25(OH)D level, which emphasises that following the current dietary fat intake recommendation ($< 35\%$ total fat) could be important in reducing the prevalence of vitamin D deficiency in this Turkish population. Nevertheless, further larger studies are needed to verify this interaction, before implementing personalized dietary recommendations for the maintenance of optimal vitamin D status.

CLINICAL ADAPTATION OF AUXILIARY METHODS AND MULTIDISCIPLINARY APPROACH TO CHANGING TRENDS IN PARATHYROID SURGERY

Husnu Aydin¹, A Cem Dural¹, N Alper Sahbaz¹, Merve Karli¹, Deniz Guzey¹, Cevher Akarsu¹, Sina Ferahman¹, Hamide Piskinpasa², Duygu Yegul³, Murat Sipahi⁴, Aysel Koyuncu⁵, Serdar Altinay⁶, Mehmet Karabulut¹

Medicine (Baltimore). 2021 Oct 1;100(39):e27160. doi: 10.1097/MD.00000000000027160. PMID: 34596115 PMCID: PMC8483855 DOI: 10.1097/MD.00000000000027160

To examine the effects of multidisciplinary approach and adjunct methods, on the surgical strategy, complications and treatment success of parathyroid surgery. Patients, who were operated for primary hyperparathyroidism ($n = 411$) at our institution between 2012 and 2019 were reviewed retrospectively. Preoperative imaging studies, surgical method, additional diagnostic methods used during surgery, frozen section results, and histopathology findings, complications, persistence, and recurrence were examined. Localization was determined by first-line examinations in 79.9% ($n = 348$). Four-dimensional computed tomography was used with an 83.3%

success rate. Lateralization success for angiographic selective venous sampling was 80.3% and exact localization success was 65.1%. Bilateral neck exploration was performed in 10.6% ($n = 37$) of the patients, and in the remaining 89.4% ($n = 311$), minimally invasive parathyroidectomy (MIP) was performed. While the complication rate was higher in the bilateral neck exploration group ($P = .019$), persistence and recurrence rates were similar between 2 groups. During the study period, annual case volume increased from 9 cases to 103 cases ($P < .001$) and the rate of MIP increased from 44.4% to 92.8% over the years ($P < .001$). Effective use of adjunct techniques has increased the rates of MIP. The multidisciplinary approach has also provided low complication rates with the increasing number of cases.

SUBACUTE THYROIDITIS DURING THE COVID-19 PANDEMIC: A PROSPECTIVE STUDY

A B Bahçecioğlu¹, Z C Karahan², B I Aydoğan³, I A Kalkan⁴, A Azap⁴, M F Erdoğan⁵

J Endocrinol Invest. 2022 Apr;45(4):865-874. doi: 10.1007/s40618-021-01718-x. Epub 2022 Jan 13. PMID: 35023078 PMCID: PMC8754549 DOI: 10.1007/s40618-021-01718-x

Purpose: Subacute thyroiditis (SAT) is a destructive thyroiditis associated with viral infections. Several SAT cases associated with SARS-CoV-2 infection/vaccination were recently reported. We aimed to evaluate prospectively all cases applied to our tertiary center and their relationship with SARS-CoV-2 during 16 months of the pandemic. Cases during similar pre-pandemic period were recorded for numeric comparison.

Methods: Prospective study took place between March 2020 and July 2021. SAT was diagnosed by classical criteria. Swabs for SARS-CoV-2 and a wide respiratory viral panel (RV-PCR) were taken. Previous COVID-19 was assessed by SARS-CoV-2 IgM&IgG levels. Study group was divided into three as: CoV-SAT, patients who had or still have COVID-19, Vac-SAT, patients diagnosed within three months after SARS-CoV-2 vaccination and NonCoV-SAT, those not associated with COVID-19 or vaccination.

Results: Out of 64 patients, 18.8% ($n = 12$) was classified as CoV-SAT, 9.3% ($n = 6$) as Vac-SAT and 71.9% as ($n = 46$) NonCoV-SAT. SARS-CoV-2 RT-PCR tests on the diagnosis of SAT were negative in all, but two patients tested positive five days later, in second testing, performed upon clinical necessity. CoV-SAT and NonCoV-SAT groups were similar in terms of clinical, laboratory, and treatment characteristics. However, symptoms were milder and treatment was easier in Vac-SAT group ($p = 0.006$).

Conclusions: Total number of SAT cases during the pandemic period was comparable to pre-pandemic period. However, a considerable rate of SARS-CoV-2 exposure in SAT patients was established. COVID-19 presented with SAT, as the first manifestation in three cases. Vaccine-related cases developed in a shorter time period, clinical presentation was milder, and only a few required corticosteroids.

MOUSE PATERNAL RNAS INITIATE A PATTERN OF METABOLIC DISORDERS IN A LINE-DEPENDENT MANNER

Guzide Satir-Basaran^{1,2}, Leila Kianmehr³, Ecmel Mehmetbeyoglu^{1,4}, Kezban Korkmaz Bayram^{1,5}, Mehmet Memis¹, Zeynep Yilmaz¹, Esra Tufan¹, Serpil Taheri^{1,6}, Fahrettin Kelestimur⁷, Minoo Rassoulzadegan^{1,8}
Front Genet. 2022 Mar 28;13:839841. doi: 10.3389/fgene.2022.839841. eCollection 2022. PMID: 35419033 PMCID: PMC8996111 DOI: 10.3389/fgene.2022.839841

A wide range of diseases result from environmental effects, and the levels of many native transcripts are altered. The alteration of non-coding RNAs (ncRNAs) and transmission of the variation to the next generation is increasingly recognized as a marker of disease. However, the determining signals and mechanisms of RNA-induced heritability remain unclear. We performed functional tests with four different genotypes of mice maintained on a high-fat diet to trace the transfer of the obesity/diabetes phenotype to the next generation in order to detect common signals. Two founders of four mouse lines (B6/D2 hybrid and *Dnmt2*^{-/-C57BL/6}) resist and do not change their phenotype while their sperm RNAs after microinjection into fertilized mouse eggs transfer the newly acquired phenotypes in a susceptible inbred line (C57BL/6 or Balb/c). Unexpectedly, in the same line of experiments, sperm RNA from animals raised on a normal diet when mixed with the sperm RNA from animals raised on a diet high in fat or synthetic miR-19b (inducer of obesity) affects or prevents the development of obesity and diabetes. However, it remains unclear what happens to ncRNA signaling under diet. With a comprehensive new analysis of the transcripts maintained as an RNA/DNA hybrid in sperm, we suggest that a fraction of the RNAs are stably attached to the genome. Thus, we propose that changes in the dynamics of ncRNA retention on DNA by factors such as transcriptional variations or lack of adequate methylation could serve as molecular markers to trace these epigenetics events.

UTILIZATION OF STATINS AND LDL-CHOLESTEROL TARGET ATTAINMENT IN TURKISH PATIENTS WITH TYPE 2 DIABETES - A NATIONWIDE CROSS-SECTIONAL STUDY (TEM DYSLIPIDEMIA STUDY)

Fahri Bayram¹, Alper Sonmez², Cem Haymana³, Tefik Sabuncu⁴, Oguzhan Sitki Dizdar⁵, Eren Gurkan⁶, Ayse Kargili Carlioglu⁷, Kemal Agbaht⁸, Didem Ozdemir⁹, Ibrahim Demirci¹⁰, Cem Barcin¹¹, Serpil Salman¹², Tamer Tetiker¹³, Mustafa Kemal Balci¹⁴, Nur Kebapci¹⁵, Canan Ersoy¹⁶, Volkan Yumuk¹⁷, Peter P Toth^{18,19}, Ilhan Satman²⁰, TEMD Study Group
Lipids Health Dis. 2020 Nov 11;19(1):237. doi: 10.1186/s12944-020-01408-2. PMID: 33176832 PMCID: PMC7659134 DOI: 10.1186/s12944-020-01408-2

Background: Attaining acceptable levels of LDL Cholesterol (LDL-C) significantly improves cardiovascular (CV) outcomes in patients with type 2 diabetes mellitus (T2DM). The LDL-C target attainment and the characteristics of patients attaining these targets were investigated in this study. Furthermore, the reasons for not choosing statins and the physicians' attitudes on the treatment of diabetic dyslipidemia were also examined.

Methods: A nationwide, cross-sectional survey was conducted in tertiary centers for diabetes management. Adult patients with T2DM, who were under follow-up for at least a year in outpatient clinics, were consecutively enrolled for the study. LDL-C goals were defined as below 70 mg/dL for patients with macrovascular complications or diabetic nephropathy, and below 100 mg/dL for other patients. Data about lipid-lowering medications were self-reported.

Results: A total of 4504 patients (female: 58.6%) were enrolled for the study. The mean HbA1c and diabetes duration was 7.73 ± 1.74% and 10.9 ± 7.5 years, respectively. The need for statin treatment was 94.9% (n = 4262); however, only 42.4% (n = 1807) of these patients were under treatment, and only 24.8% (n = 448) of these patients achieved LDL-C targets. The main reason for statin discontinuation was negative media coverage (87.5%), while only a minority of patients (12.5%) mentioned side effects. Physicians initiated lipid-lowering therapy in only 20.3% of patients with high LDL-C levels. It was observed that the female gender was a significant independent predictor of not attaining LDL-C goals (OR: 0.70, 95% CI: 0.59-0.83).

Conclusions: Less than 50 % of patients with T2DM who need statins were under treatment, and only a quarter of them attained their LDL-C targets. There exists a significant gap between the guideline recommendations and the real-world evidence in the treatment of dyslipidemia in T2DM.

ASSESSMENT OF CALCIUM AND VITAMIN D MEDICATIONS ADHERENCE IN PATIENTS WITH HYPOPARATHYROIDISM AFTER THYROIDECTOMY

Muhammet Cuneyt Bilginer¹, Cevdet Aydin², Burcak Polat², Sevgül Fakiş³, Oya Topaloglu², Reyhan Ersoy², Bekir Cakir²
Arch Osteoporos. 2022 Jan 24;17(1):22. doi: 10.1007/s11657-022-01066-0. PMID: 35072832 DOI: 10.1007/s11657-022-01066-0

In this study, we found that patients with hypoparathyroidism had a problem with calcium medication compliance, and this problem increased with the duration of the disease. We also showed that patients are concerned about the possible side effects of drugs.

Introduction: In this study, we aimed to evaluate adherence to active vitamin D and calcium replacement in patients with post-surgical hypoparathyroidism.

Methods: To elucidate the medication adherence, we performed a questionnaire survey using the six-item "Medication adherence questionnaire"(MAQ). The first, second, and sixth questions reflect the motivation status of the patients whereas the third, fourth, and fifth questions reflect the knowledge about the medication that is received. The responses are scored and patients are classified regarding their motivation to and knowledge about the particular drug.

Results: Totally, 64 patients (male: 12/female: 52; mean age 48.6±11.6 years) who had post-operative hypoparathyroidism were included in our study. Median disease duration was 60 months (min-max: 12-295 months). We found that motivation score of calcium usage was significantly lower compared to vitamin D usage (p<0.001). The calcium motivation score was reversely correlated with disease duration (r= -0.256 and p=0.046). The most common worry about calcium usage was nephrotoxicity, and the most common worries about calcitriol treatment were kidney damage and polyuria. One-third of the patients were taking oral calcium and calcitriol less than the recommended dose.

Conclusion: One-third of patients lack motivation to use calcium whereas half of the patients experiences anxiety about drug-related side effects. This is a preliminary study showing that vital calcium and active vitamin D intake may be interrupted due to side effect anxiety.

THE PREDICTIVE VALUE OF HEMATOLOGIC PARAMETERS IN THE RISK OF THYROID MALIGNANCY IN CASES WITH ATYPIA/FOLLICULAR LESION OF UNDETERMINED SIGNIFICANCE

Hayri Bostan¹, Muhammed Erkam Sencar², Murat Calapkulu², Sema Hepsen², Pinar Akhanli², Hakan Duger², Bekir Ucan², Muhammed Kizilgul², Ilknur Ozturk Unsal², Mustafa Ozbek², Erman Cakal²

Eur Arch Otorhinolaryngol. 2022 Aug;279(8):4077-4084. doi: 10.1007/s00405-021-07248-9. Epub 2022 Jan 10. PMID: 35006341 DOI: 10.1007/s00405-021-07248-9

Background: Atypia/follicular lesion of undetermined significance (AUS/FLUS) is still the most challenging category in the Bethesda System for Reporting Thyroid Cytopathology. Therefore, the aim of the current study was to investigate the value of the neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), and mean platelet volume (MPV) in predicting malignancy in cases with AUS/FLUS nodules.

Methods: A total of 200 patients with AUS/FLUS nodules who underwent thyroidectomy were included in this study. Preoperative hemogram parameters, ultrasonographic findings, fine-needle aspiration results, and postoperative final histopathological diagnoses of the patients were recorded retrospectively.

Results: Thyroid malignancies were detected in 122 of the patients (61.0%). Patients in the benign group (BG) were older than those in the malignancy group (MG) (52.0 ± 11.3 vs. 45.9 ± 12.3 years, $p < 0.001$). The median TSH values of the two groups were comparable. Statistically significant differences were obtained between the two groups in respect of mean WBC of 7.53 ± 1.44 in MG and 6.87 ± 1.35 ($10^3/\text{mm}^3$) in BG, mean neutrophil of 4.65 ± 1.12 in MG and 3.95 ± 0.99 ($10^3/\text{mm}^3$) in BG, and median NLR of 2.18 (0.71-4.57) in MG and 1.75 (0.80-3.42) in BG ($p < 0.001$). The median PLR and MPV values of the two groups were similar. When NLR cut-off point was designated as 2.24, the accuracy of NLR in distinguishing malignancy from the benign condition was 0.65 in ROC analysis (area under the curve, 0.665; specificity, 0.808; sensitivity, 0.492).

Conclusion: High NLR values may provide limited help in predicting thyroid malignancy in the AUS/FLUS nodule population, while PLR and MPV are not reliable parameters.

RELAPSED AND NEWLY DIAGNOSED GRAVES' DISEASE DUE TO IMMUNIZATION AGAINST COVID-19: A CASE SERIES AND REVIEW OF THE LITERATURE

Hayri Bostan¹, Bekir Ucan², Muhammed Kizilgul², Murat Calapkulu², Sema Hepsen², Umran Gul², Ilknur Ozturk Unsal², Erman Cakal²

J Autoimmun. 2022 Apr;128:102809. doi: 10.1016/j.jaut.2022.102809. Epub 2022 Feb 24. PMID: 35220164 PMCID: PMC8867370 DOI: 10.1016/j.jaut.2022.102809

In addition to genetic factors, environmental factors such as viruses are thought to be triggers in the development of autoimmune thyroid diseases (AITD) such as Graves' disease (GD). In this context, AITD cases that may be associated with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection or immunization have begun to be reported in increasing numbers. Although it is not clear by which pathogenetic mechanisms immunization against coronavirus disease 2019 (COVID-19) triggers the development of AITD, both the potential effect of the adjuvants in the vaccines and the cross-reactivity that can be generated by the molecular similarity of viral particles with mammalian proteins seem to be possible mechanisms. In this article, 7 GD patients consisting of relapsed and newly diagnosed cases following the COVID-19 vaccination were presented. Of these 7 cases, 5 (71.4%) were female, and the median age of the patients was 47 years (range, 31-53). One of the patients was associated with the inactivated COVID-19 vaccine, while the others were associated with the mRNA COVID-19 vaccine. The median post-vaccination symptom onset was 7 days (range, 4-30). Three of the patients had a history of GD and one had a history of Hashimoto's thyroiditis. Rapidly developing Graves' ophthalmopathy was detected in one patient. These cases are cautionary that GD and its extrathyroidal manifestations may develop in a short period after COVID-19 vaccination. When considered together with the literature review, the history of AITD in approximately half of the patients suggests that more attention should be paid to these patients in the post-vaccination period. Nevertheless, multicenter, prospective studies are needed to better understand this possible causal relationship.

ANTI-MULLERIAN HORMONE LEVELS INCREASE AFTER BARIATRIC SURGERY IN OBESE FEMALE PATIENTS WITH AND WITHOUT POLYCYSTIC OVARY SYNDROME

Mitat Buyukkaba¹, Seda Turgut², Mahmut Muzaffer İlhan³, Iskender Ekinç¹, İlhan Yaylım⁴, Sakir Umit Zeybek⁴, Saime Turan⁴, Ertugrul Tasan⁵, Ozcan Karaman⁵

Horm Metab Res. 2022 Mar;54(3):194-198. doi: 10.1055/a-1756-4798. Epub 2022 Mar 11. PMID: 35276745 DOI: 10.1055/a-1756-4798

This study was aimed to investigate the effect of weight loss by bariatric surgery on the level of anti-Müllerian hormone (AMH) in morbidly obese female patients with or without polycystic ovary syndrome (PCOS). This prospective study includes 70 females, obese, and fertile patients of reproductive age. All patients were evaluated to determine the changes in weight, body mass index (BMI), serum AMH, and other biochemical parameters at the end of six months. The mean levels of the preop and postop AMH were 1.66 ± 0.87 ng/ml and 5.99 ± 1.39 ng/ml in the PCOS group; 1.35 ± 0.76 ng/ml and 6.23 ± 1.47 ng/ml in the non-PCOS group, respectively. The postop AMH levels were significantly higher than the preop levels for both groups ($p < 0.001$). There were significant

differences in the level of glucose, low-density lipoprotein (LDL), high-density lipoprotein (HDL), triglyceride, total cholesterol, hemoglobin A1c, HOMA-IR, insulin between preop and postop 6th month. A negative correlation was found between postop AMH and body weight in all patients ($r=-0.337$, $p=0.031$). Postop AMH levels were negatively correlated with postop BMI levels in the non-PCOS patient group ($r=-0.408$, $p=0.043$). No significant difference was observed between the PCOS and non-PCOS groups in terms of all the parameters examined. In conclusion, our study suggests that the significantly increased AMH levels by losing weight with bariatric surgery in patients with morbid obesity with and without PCOS may indicate the improvement of fertilization potential. It could be considered when evaluating fertility in patients with morbid obesity.

ARTERIAL STIFFNESS, CAROTID INTIMA-MEDIA THICKNESS, ENDOCAN, AND A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN TYPE I MOTIF 9 LEVELS AND THEIR RELATIONSHIP WITH DISEASE ACTIVITY IN PATIENTS WITH ACROMEGALY WITH AND WITHOUT CARDIOVASCULAR RISK FACTORS

Mustafa Can¹, Muhammet Kocabas², Melia Karakose², Fatma Humeyra Yerlikaya³, Yakup Alsancak⁴, Kultigin Turkmen⁵, Mustafa Kulaksizoglu², Feridun Karakurt²

Endocr Pract. 2022 Mar;28(3):298-303. doi: 10.1016/j.eprac.2021.11.084. Epub 2021 Nov 26. PMID: 34843972 DOI: 10.1016/j.eprac.2021.11.084

Objective: Cardiovascular complications such as cardiomyopathy and endothelial dysfunction, which are frequently seen in patients with acromegaly, are among the most important causes of morbidity and mortality. In this study, we aimed to investigate arterial stiffness, carotid intima-media thickness, endocan level, and A disintegrin and metalloproteinase with thrombospondin type I motif 9 level and their relationship with disease activity in patients with acromegaly with and without cardiovascular risk factors.

Methods: A total of 60 patients with acromegaly-25 with active disease, 26 with well-controlled disease, and 9 with newly diagnosed disease-and 60 age, sex-, and body mass index (BMI)-matched healthy control subjects were enrolled in this study. All the subjects' height, weight, BMI, systolic blood pressure (SBP), diastolic blood pressure (DBP), fasting plasma glucose (FPG) level, insulin, hemoglobin A1C (HbA1C), C-reactive protein, lipid, endocan, A disintegrin and metalloproteinase with thrombospondin type I motif 9 levels, pulse wave velocity (PWV), and carotid intima-media thickness were measured.

Results: The SBP, DBP, FPG level, HbA1C level, and PWV of the acromegaly group were higher than those of the control group. In patients with acromegaly with cardiovascular disease (CVD) risk factors, the PWV was higher than that in the control group, and in patients with acromegaly without CVD risk factors, the PWV was similar to that in the control group. In a correlation analysis, a positive correlation was found between PWV and age, BMI, SBP, DBP, FPG level, and HbA1C level in the acromegaly group.

Conclusion: In our study, we found that arterial stiffness increased in patients with acromegaly with CVD risk factors and that increased arterial stiffness was associated with hemodynamic (SBP and DBP) and metabolic (BMI, FPG level, and HbA1C level) parameters.

OPTIMAL TESTOSTERONE LEVEL TO IMPROVE SYMPTOMS OF HYPOGONADISM WITHOUT CAUSING DOPA-TESTOTOXICOSIS IN MALE MACROPROLACTINOMA

Ozge Telci Caklili¹, Ayse Merve Ok², Zual Istemihan³, Ozlem Selcukbiricik², Sema Yarman²

Ann Endocrinol (Paris). 2022 Feb;83(1):9-15. doi: 10.1016/j.ando.2021.11.005. Epub 2021 Dec 3. PMID: 34871603 DOI: 10.1016/j.ando.2021.11.005

Background: Male prolactinoma treatment by dopamine agonists (DA) restores sexual function. However, excessive DA dose can lead to impulse control disorder.

Objectives: The aim of this retrospective study was to determine the level of testosterone that eliminates symptoms and provides fertility in male macroprolactinoma, without causing these adverse effects.

Materials and methods: Twenty-seven male patients with macroprolactinoma were included. There were 16 macro ($\geq 1-2.8$ cm), 7 large macro ($\geq 2.9-3.9$ cm) and 4 giant (≥ 4 cm) adenomas. Prolactin (PRL) and testosterone (T) levels were evaluated. A timeline was created to analyze improvement in symptoms of hypogonadism and infertility. Testosterone levels were compared with age-matched controls.

Results: Mean PRL, basal tumor diameter and shrinkage were 2846 ± 3415 ng/mL, 27.2 ± 10.2 mm and 63.4%, respectively. Basal T levels were 1.6 ± 1.0 ng/mL for patients and 4.4 ± 1.5 ng/mL for controls ($P < 0.001$). Mean T level in the asymptomatic period was significantly lower than in controls (3.2 ± 0.4 ng/mL vs. 4.4 ± 1.5 ng/mL, respectively; $P = 0.002$), while mean PRL was 27.2 ng/mL. Fertility was achieved in 6 of the patients seeking fertility, and there was no difference in T level between these patients and controls (3.7 ± 0.8 ng/mL and 4.4 ± 1.5 ng/mL, respectively; $P = 0.14$); when fertility was achieved, mean PRL was 26.9 ± 23 ng/mL.

Conclusion: Patients should be carefully questioned regarding complaints at each consultation, and DA dose should not be increased unnecessarily, to avoid possible serious adverse effects.

IS OXIDATIVE STRESS A FACTOR IN THE PATHOGENESIS OF SUBACUTE THYROIDITIS?

Murat Dağdeviren¹, Arzu Or Koca², Tolga Akkan², Salim Neşelioğlu³, Özcan Erel³, Mustafa Altay²

Endokrynol Pol. 2022;73(1):64-70. doi: 10.5603/EPa.2021.0105. Epub 2022 Feb 14. PMID: 35156704 DOI: 10.5603/EPa.2021.0105

Introduction: In a performed study, selenium levels were detected to be lower in subacute thyroiditis (SAT). This outcome suggests that the oxidant-antioxidant system may play a role in the aetiopathogenesis of SAT, as is the case for many other diseases. The aim of the present study was to detect whether any association exists between SAT and oxidative stress, and to determine the factors of a possible association.

Material and methods: Twenty-five patients who were newly diagnosed with SAT and 30 healthy volunteers were enrolled in the study. Total antioxidant status (TAS), total oxidant status (TOS), oxidative stress index (OSI), paraoxonase 1 (PON1), and dynamic thiol/disulphide [native thiol (NT), total thiol (TT), disulphide (DS), DS/TT, DS/NT, and NT/TT] levels of the participants were evaluated.

Results: Total thiol and NT levels were found to be lower in the SAT group ($p < 0.001$). DS/NT and DS/TT levels were significantly higher in the patients with SAT, whereas NT/TT levels were lower ($p < 0.05$). A negative correlation was detected between C-reactive protein (CRP) and TAS, whereas a positive correlation was detected between CRP and OSI. There was a negative association between TSH and TAS only in the partial correlation analysis by adjusting for age, white blood cell count, neutrophil (Neu) level, CRP, and erythrocyte sedimentation rate (ESR) ($r = -0.481$, $p = 0.043$).

Conclusions: Thiol levels are significantly decreased and thiol/disulphide homeostasis is disrupted in patients with SAT. The present study has presented for the first time that there may be an association between SAT and oxidative stress.

RATES AND ASSOCIATES OF INFLUENZA AND PNEUMOCOCCUS VACCINATION IN DIABETES MELLITUS: A NATIONWIDE CROSS-SECTIONAL STUDY (TEMD VACCINATION STUDY)

Ibrahim Demirci¹, Cem Haymana¹, Serpil Salman², Ilker Tasci³, Demet Corapcioglu⁴, Ali Kirik⁵, İlhan Yetkin⁶, Mustafa Altay⁷, Tevfik Sabuncu⁸, Fahri Bayram⁹, İlhan Satman¹⁰, Alper Sonmez¹¹, TEMD Study Group

World J Diabetes. 2021 Dec 15;12(12):2107-2118. doi: 10.4239/wjd.v12.i12.2107.

PMID: 35047124 PMCID: PMC8696642 DOI: 10.4239/wjd.v12.i12.2107

Background: Vaccination against influenza and pneumococcus is effective in reducing morbidity and mortality in patients with diabetes.

Aim: To investigate the prevalence of influenza and pneumococcal vaccinations and to search for the independent associates of vaccination in Turkish patients with diabetes.

Methods: In this cross-sectional, nationwide, multicenter study, adult patients with type 1 diabetes (T1DM) ($n = 454$) and type 2 diabetes (T2DM) ($n = 4721$), who were under follow-up for at least a year in the outpatient clinics, were consecutively enrolled. Sociodemographic, clinical, and laboratory parameters of patients were recorded. Vaccination histories were documented according to the self-statements of the patients.

Results: Patients with T1DM and T2DM had similar vaccination rates for influenza (23.6% vs 21.2%; $P = 0.240$) and pneumococcus (8% vs 7%; $P = 0.451$) vaccinations. Longer diabetes duration and older age were the common independent associates of having vaccination for both types of diabetes patients. Higher education level, using statin treatment, and having optimal hemoglobin A1c levels were the common independent associates of influenza and pneumococcal vaccination in patients with T2DM.

Conclusion: TEMD Vaccination Study shows that patients with T1DM and T2DM had very low influenza and pneumococcal vaccination rates in Turkey. The lower rates of vaccination in certain populations urges the necessity of nationwide vaccination strategies targeting these populations.

CANCER PREVALENCE AND CANCER SCREENING IN PATIENTS WITH ACROMEGALY: A SINGLE CENTER EXPERIENCE

Elif Tutku Durmuş¹, Ayşegül Atmaca², Ramis Çolak², Buğra Durmuş²

Endocrine. 2022 May 24. doi: 10.1007/s12020-022-03082-z. Online ahead of print.

PMID: 35608772 DOI: 10.1007/s12020-022-03082-z

Purpose: To investigate the prevalence of cancer in patients with acromegaly and the variables associated with malignant and premalignant lesions detected by cancer screening.

Methods: The data of 214 patients diagnosed with acromegaly in our institution were evaluated retrospectively. Prevalence of cancer was compared with national rates to estimate standardized incidence ratios (SIRs). The relationships of malignant and premalignant lesions detected by cancer screening with demographic, clinical, and radiological variables were also analyzed.

Results: Cancer was detected in 24 (13.4%) of 179 patients enrolled in the study. Compared to the general population, the incidence of all malignancies was increased in both women and men with acromegaly (SIR: 4.78, 95% CI: 2.43-8.53, $p = 0.002$ and SIR: 8.97, 95% CI: 5.51-14.7, $p < 0.001$, respectively). The most common cancers were thyroid, colorectal, breast, kidney, gastric, and testicular cancer, respectively. Duration of disease was the only independent risk factor for the development of cancer (OR: 1.007, 95% CI: 1.002-1.011, $p = 0.002$). Malignant/premalignant lesions were detected in 21.5% of the patients with a colonoscopy scanning procedure and in 20.8% with an esophagogastroduodenoscopy procedure, and current age was found to be higher among the patients with malignant/premalignant lesions ($p = 0.023$ and $p = 0.003$, respectively). Breast cancer was detected in 3.7% of screening tests performed with mammography.

Conclusion: In this study, it was shown that the prevalence of cancer increases with acromegaly and this increase is associated with disease duration. Considering the increase in the number of premalignant lesions, the scope of cancer screening recommendations in the guidelines should be expanded to ensure early diagnosis.

EFFICACY OF PREOPERATIVE THERAPEUTIC PLASMA EXCHANGE IN PATIENTS WITH HYPERTHYROIDISM AND FACTORS AFFECTING THE NUMBER OF SESSIONS

Elif Tutku Durmuş¹, Ayşegül Atmaca², Düzgün Özatlı³, Ramis Çolak², Buğra Durmuş²

Endocrine. 2022 Apr;76(1):101-108. doi: 10.1007/s12020-021-02975-9. Epub 2022

Jan 30. PMID: 35094312 DOI: 10.1007/s12020-021-02975-9

Purpose: Achieving preoperative euthyroidism in patients with hyperthyroidism for whom antithyroid drugs (ATDs) cannot be used for treatment is a serious clinical problem. We aimed to evaluate the effectiveness of therapeutic plasma exchange (TPE) in hyperthyroid patients scheduled for surgery and predictive factors for a high number of TPE sessions.

Methods: We retrospectively analyzed the data of 21 patients with hyperthyroidism who were treated with TPE for preoperative euthyroidism in our institution. Pre- and post-TPE thyroid function tests were compared to assess efficacy. Binary logistic regression analysis was applied to determine predictors of patients requiring a high number of TPE sessions.

Results: All patients (20 patients with Graves' disease and 1 patient with toxic multinodular goiter; 12 women and 9 men; mean age 35.71 ± 12.38 years) had severe hyperthyroidism before TPE. The changes before and after TPE in fT3, fT4, and TSH levels were statistically significant ($p < 0.001$, $p < 0.001$, $p = 0.002$, respectively). The median number of TPE sessions was 8 (range: 1-24). Levels of fT3 before TPE were significantly higher in patients for whom higher numbers of TPE sessions were required (≥ 8) (OR: 1.427, 95% CI: 1.038-1.961, $p = 0.028$). Receiver operating characteristic curve analysis revealed an optimum cut-off value of 12.8 pg/ml for fT3 before TPE (91% sensitivity, 80% specificity, area under the curve: 0.927).

Conclusion: TPE should be considered as an effective alternative treatment option that can be used to rapidly achieve euthyroidism before surgery when ATDs cannot be used. Pre-TPE fT3 levels of >12.8 pg/ml may be an independent factor predicting the need for higher numbers of TPE sessions (≥ 8).

PILOT STUDY OF THE DIAGNOSTIC VALUE OF CRP: ALBUMIN RATIO FOR OSTEOMYELITIS IN PATIENTS WITH DIABETIC FOOT ULCERS

Mehmet Ali Eren¹, Ali Erdal Güneş², Mehmet Reşat Ceylan³, Hatice İncebıyık¹, Mehmet Salih Aydın⁴, Abdurrahim Dusağ¹, Tefvik Sabuncu¹

J Wound Care. 2022 Mar 1;31(Sup3):S25-S28. doi: 10.12968/jowc.2022.31.Sup3.S25.

PMID: 35199563 DOI: 10.12968/jowc.2022.31.Sup3.S25

Objective: Osteomyelitis may complicate diabetic foot ulcers (DFUs). As a new inflammation-based prognostic factor, CRP:albumin ratio's significance is not known in osteomyelitis among patients with or without diabetes.

Method: Patients with type 2 diabetes and DFUs were divided into two groups: group 1 (n=47) comprised patients without osteomyelitis, and group 2 (n=50) comprised patients with osteomyelitis.

Results: Erythrocyte sedimentation rate (ESR) (88.5 ± 23.0 versus 42.0 ± 22.2), white blood cell count (WBC) ($14.7 \pm 6.9 \times 10^3$ versus $10.0 \pm 4.4 \times 10^3$), C-reactive protein (CRP) level (15.6 ± 9.9 versus 2.4 ± 3.3) and CRP:albumin ratio (6.6 ± 4.9 versus 0.7 ± 1.0) were significantly higher, and albumin level was significantly lower in group 2 compared to group 1 ($p < 0.001$ for all). The presence of osteomyelitis was significantly and positively correlated with ESR ($r = 0.721$; $p < 0.001$), WBC ($r = 0.380$; $p < 0.001$), CRP ($r = 0.667$; $p < 0.001$) and CRP:albumin ratio ($r = 0.638$; $p < 0.001$), and negatively correlated with albumin ($r = -0.590$; $p < 0.001$). A CRP:albumin ratio of 1.74 or above could predict osteomyelitis with 92.0% sensitivity, 80.9% specificity, and the best area under the curve (AUC) score (AUC=0.957; 95% CI: 0.924-0.991). ESR (odds ratio (OR): 1.071 (1.025-1.119); $p = 0.02$) and CRP:albumin ratio (OR: 2.65 (1.437-4.885); $p = 0.002$) were independent predictors in the final model for stepwise linear regression analyses for the estimation of osteomyelitis.

Conclusion: CRP:albumin ratio is a cheap and repeatable inflammatory marker and can successfully detect osteomyelitis in patients with DFU.

ASSESSMENT OF NEUROENDOCRINE CHANGES AND HYPOTHALAMO-PITUITARY AUTOIMMUNITY IN PATIENTS WITH COVID-19

Mustafa Sait Gonen¹, Annamaria De Bellis², Emre Durcan¹, Giuseppe Bellastella², Paolo Cirillo³, Lorenzo Scappaticcio³, Miriam Longo³, Basak Ecem Bircan¹, Serdar Sahin¹, Cem Sulu¹, Hande Mefkure Ozkaya¹, Dildar Konukoglu⁴, Fatma Ferda Kartufan⁵, Fahrettin Kelestimur⁶

Horm Metab Res. 2022 Mar;54(3):153-161. doi: 10.1055/a-1764-1260. Epub 2022

Mar 11. PMID: 35276740 DOI: 10.1055/a-1764-1260

SARS-CoV-2 may affect the hypothalamic-pituitary axis and pituitary dysfunction may occur. Therefore, we investigated neuroendocrine changes, in particular, secondary adrenal insufficiency, using a dynamic test and the role of autoimmunity in pituitary dysfunction in patients with COVID-19. The single-center, prospective, case-control study included patients with polymerase chain reaction (PCR)-confirmed COVID-19 and healthy controls. Basal hormone levels were measured, and the adrenocorticotrophic hormone (ACTH) stimulation test was performed. Antipituitary (APA) and antihypothalamic antibodies (AHA) were also determined. We examined a total of 49 patients with COVID-19 and 28 healthy controls. The frequency of adrenal insufficiency in patients with COVID-19 was found as 8.2%. Patients with COVID-19 had lower free T_3 , IGF-1, and total testosterone levels, and higher cortisol and prolactin levels when compared with controls. We also demonstrated the presence of APA in three and AHA in one of four patients with adrenal insufficiency. In conclusion, COVID-19 may result in adrenal insufficiency, thus routine screening of adrenal functions in these patients is needed. Endocrine disturbances in COVID-19 are similar to those seen in acute stressful conditions or infections. Pituitary or hypothalamic autoimmunity may play a role in neuroendocrine abnormalities in COVID-19.

DIAGNOSTIC PERFORMANCE OF THE CUT SCORE IN ASSESSING THE MALIGNANCY RISK OF THYROID NODULES

Nese Ersoz Gulcelik¹, Burcu Candemir¹, Coskun Meric¹, Safak Akin², Cem Haymana², Ibrahim Demirci², Bagdagul Yuksel Guler¹, Mithat Eser¹, Yusuf Alper Sonmez¹

Various Scoring Systems In Order To Predict The Malignancy Risk In Thyroid Nodules (Tns) Have Been Developed. Cut Is One Of The Novel Scoring Systems. In This Study, We Aimed To Evaluate Its Performance In Predicting The Malignancy Risk In Tns And Validity In The Presence Of Hashimoto's Thyroiditis (Ht). We Retrospectively Evaluated A Total Of 252 Tns With A Fine Needle Aspiration Biopsy. The Cut Scores (Clinical, Ultrasonographic, And Thyroid Cytological Scoring System) Of The Nodules Were Compared With Ata, Acr-Tirads And Kwak-Tirads Scores And The Histopathology Of The Nodules. Patients With Ht Were Also Compared With M-Tirads Classification. The Cut Scores Of Nodules With Malignant Histopathology Were Significantly Higher Than The Benign Nodules (3.59 Vs. 4.63, $P < 0.001$). The Area Values Under The Roc Curve Of Acr-Tirads, Kwak-Tirads, Ata And Cut Scoring Systems Were Similar And Significantly Higher Than The Reference Line [Acr-Tirads, Auc Was 0.762 (95% CI: 0.702-0.822, $P < 0.001$); Kwak-Tirads, Auc Was 0.759 (95% CI: 0.699-0.819, $P < 0.001$); Cut Score, Auc Was 0.759 (95% CI: 0.700-0.819, $P < 0.001$); Ata, Auc

Was 0.748 (95% CI: 0.687-0.810, $P < 0.001$)). The Areas Under The Roc Curve Were Similar When The Efficiency Of The Cut Score Was Compared With M-Tirads [Cut Score, Auc Was 0.772 (95% CI: 0.669-0.876, $P < 0.001$); M-Tirads, Auc Was 0.770 (95% CI: 0.667-0.874; $P < 0.001$)] In Patients With Ht. Our Study Showed That Cut Scoring System Was As Effective As Other Scoring Systems In Predicting The Risk Of Malignancy In Thyroid Nodules. Furthermore, Cut Score Is Also Effective In The Presence Of Ht.

SERUM OSTEOPROTEGERIN LEVELS, ENDOTHELIAL FUNCTION AND CAROTID INTIMA-MEDIA THICKNESS IN TYPE 2 DIABETIC PATIENTS

Mutlu Gunes¹, Sule Temizkan², Tugce Apaydin³, Can Ilgin⁴, Goncagul Haklar⁵, Dilek Gogas Yavuz⁶

J Diabetes Complications. 2021 Dec;35(12):108073. doi: 10.1016/j.jdiacomp.2021.108073. Epub 2021 Oct 8. PMID: 34635402 DOI: 10.1016/j.jdiacomp.2021.108073

Objectives: Osteoprotegerin (OPG), a well-known protein that inhibits osteoclast formation and activity, might also be a potential marker for identifying patients with high cardiovascular risk. This study aimed to compare OPG levels, FMD, and CIMT measurements in subjects with vs. without diabetes and investigate the association of serum osteoprotegerin level with the early atherosclerotic markers, endothelial function, and carotid intima-media thickness (CIMT) in patients with type 2 diabetes mellitus (DM2).

Methods: Forty-nine patients with DM2 (F/M: 26/23, 49.3 ± 10.0 years) and 45 healthy volunteers (F/M: 26/19, 48.3 ± 7.5 years) were included in this cross-sectional study. Serum OPG levels were measured by solid-phase enzyme-linked immunosorbent assay (ELISA). Fasting plasma glucose (FPG) and HbA1c levels were measured. CIMT was measured by B-mode ultrasound, and endothelial function was evaluated via flow-mediated dilation (FMD) of the brachial artery with Doppler ultrasonography.

Results: Serum OPG levels were significantly higher in patients with DM2 (617.0 ± 111.0 pg/mL) compared to controls (481.0 ± 96.0 pg/mL, $p < 0.001$). While CIMT in diabetic patients (0.65 ± 0.13 mm) was higher than controls (0.54 ± 0.10 mm, $p = 0.009$), FMD measurement was lower in DM2 group ($4.2\% \pm 3.1$ mm vs. $7.6\% \pm 4.1$ mm, $p = 0.01$). Univariate analysis showed that OPG was associated with the presence of diabetes (OR: 6.999, $p = 0.001$, R^2 : 15.1%) and hypertension (OR = 6.925, $p = 0.001$, R^2 : 13.2%). There was no relationship between OPG levels and CIMT or FMD.

Conclusion: Osteoprotegerin and CIMT levels were increased, and FMD measurements were decreased in patients with DM2. No association between CIMT, FMD, and OPG measurements was observed. The presence of DM and hypertension were associated with circulating OPG levels.

PERINATAL EFFECTS OF MATERNAL FT3/FT4 RATIO ON GESTATIONAL TRANSIENT THYROTOXICOSIS

Eren Gürkan¹, Kenan Dolapçioğlu², Emre Dirican³

Arch Endocrinol Metab. 2021 Nov 3;65(4):450-454. doi: 10.20945/2359-399700000371. Epub 2021 Jul 16. PMID: 34283898 DOI: 10.20945/2359-399700000371

Objective: The effects of maternal thyroid hormone levels on the course of pregnancy and birth weight have attracted interest. The aim of the present study was to consider FT3 and FT3/FT4 ratio in the evaluation of the effects of maternal thyroid functions in gestational transient thyrotoxicosis (GTT).

Methods: This case-control study included 45 patients with GTT and 45 healthy pregnant women. Maternal history before pregnancy, thyroid function tests, thyroid autoantibodies, and thyroid ultrasonography results in 6th to 10th weeks of pregnancy were used in the differential diagnosis of GTT. In both groups, the effects of FT3, FT4 and FT3/FT4 ratios on gestational age and birth weight were evaluated.

Results: There was no significant difference in the gestational age between the GTT and control groups ($39,3 \pm 1,0$ weeks and $39,2 \pm 1,2$ weeks, respectively). Birth weights were similar in both groups ($3205,2 \pm 4899$ g and $3196,6 \pm 309,3$ g, respectively). When maternal weight was adjusted, a positive correlation was observed between maternal FT3/FT4 ratio and birth weight ($r=0,317$, $p=0,017$). Additionally there was a positive correlation between the gestational age and the birth weight in the control group ($p=0,726$, $p=0,001$).

Conclusion: GTT had no significant effect on the gestational age and the birth weight. On the other hand an increase in the maternal FT3/FT4 ratio had a positive effect on the birth weight in the patient with GTT. Maternal characteristics (age, weight, BMI) and FT3/FT4 ratio should be taken into consideration in future impact assessment studies on this issue.

PATTERNS AND PREFERENCES OF ANTIDIABETIC DRUG USE IN TURKISH PATIENTS WITH TYPE 2 DIABETES - A NATIONWIDE CROSS-SECTIONAL STUDY (TEM D TREATMENT STUDY)

Cem Haymana¹, Alper Sonmez², Ibrahim Demirci³, Guzin Fidan Yaylalı⁴, Irfan Nuhoglu⁵, Seda Sancak⁶, Murat Yilmaz⁷, Yuksel Altuntas⁸, Nevin Dincag⁹, Tevfik Sabuncu¹⁰, Fahri Bayram¹¹, İlhan Satman⁹, TEM D Study Group

Diabetes Res Clin Pract. 2021 Jan;171:108556. doi: 10.1016/j.diabres.2020.108556. Epub 2020 Nov 24. PMID: 33242516 DOI: 10.1016/j.diabres.2020.108556

Aims: The treatment preferences in type 2 diabetes (T2DM) are affected by multiple factors. This survey aims to find out the profiles of the utilization of antidiabetics and their determinants.

Methods: The nationwide, multicenter TEM D survey consecutively enrolled patients with T2DM ($n = 4678$). Medications including oral antidiabetics (OAD) and injectable regimens were recorded. Multiple injectable regimens with or without OADs were defined as complex treatments.

Results: A total of 4678 patients with T2DM (mean age: 58.5 ± 10.4 years, 59% female) were enrolled. More than half of patients ($n = 2372$; 50.7%) were using injectable regimens with or without OADs, and others ($n = 2306$, 49.3%) were using only OADs. The most common OADs were metformin (93.5%), secretagogues (40.1%), and DPP-4 inhibitors (37.2%). The

rates of the use of basal, basal-bolus and premix insulin were 26.5%, 39.5% and 22.4%, respectively. Patients using OADs achieved better glycemia, blood pressure and weight control ($p < 0.001$ for all) but poorer LDL-C control ($p < 0.001$). The independent associates of complex treatments were diabetes duration, obesity, eGFR, glycated haemoglobin, macro and microvascular complications, education level, and self-reported hypoglycemia.

Conclusion: This study is the first nationwide report to show that almost half of the patients with T2DM are using injectable regimens in Turkey.

MINI-REVIEW: PUMP THERAPY IN ENDOCRINOLOGY & METABOLISM BEYOND DIABETES

Burçak Cavnar Helvacı¹, Hüsnüye Başer², Bekir Çakır²

Endocrine. 2022 May;76(2):245-252. doi: 10.1007/s12020-022-03007-w. Epub 2022 Feb 15. PMID: 35169961 DOI: 10.1007/s12020-022-03007-w

The first pump developed by Dr. Kadish and his team in 1963 aimed to "continue subcutaneous insulin infusion". The number of patients using insulin pumps has increased since the 1980s. This historical perspective has labeled pump therapy in endocrinology and metabolism synonymous with insulin pumps. However, certain other hormonal disorders might also benefit from this kind of treatment. Pump therapy is currently the best approach to achieve physiological mimicry. Furthermore, it may help in overcoming pharmacokinetic issues or allergies. Until now, hormone replacement via pumps has been a salvage method for complex cases at the expense of increased costs. However, it is believed that applications of pump treatment will widen in the future owing to the rapidly evolving technology. In this mini review, data on pump use for patients with adrenal insufficiency, hypogonadism, hypoparathyroidism, congenital adrenal hyperplasia, and congenital hyperinsulinism have been briefly summarized. The study has aimed at covering all the relevant clinical studies and important case reports/series.

Methods: A systematic literature search has been conducted on PubMed database seeking articles published until May 2021 using a combination of the following Medical Subject Headings terms and keywords: pump "OR" continue infusion "AND" (adrenal insufficiency "OR" Addison "OR" hydrocortisone "OR" hypoparathyroidism "OR" teriparatide "OR" somatostatin "OR" hypogonadism "OR" hypoglycemia "OR" endocrinology "OR" hormone replacement). In addition, the reference publications in the identified articles have also been reviewed.

THE IMPACT OF AGEING AND MENOPAUSE IN WOMEN WITH POLYCYSTIC OVARY SYNDROME

Nafiye Helvacı¹, Bulent O Yildiz²

Clin Endocrinol (Oxf). 2021 Jul 19. doi: 10.1111/cen.14558. Online ahead of print. PMID: 34288042 DOI: 10.1111/cen.14558

Polycystic ovary syndrome (PCOS) is a common hormonal, metabolic and reproductive disorder. Women with PCOS at reproductive age have increased risk and prevalence of prediabetes and diabetes and have multiple risk factors for cardiometabolic disease and other comorbidities such as obstructive sleep apnoea, endometrial cancer and mood disorders, which contribute to the overall health burden of

the syndrome. However, little is known about the impact of PCOS on long-term health in ageing women. In this review, we aimed to give an updated overview regarding the long-term health outcomes of PCOS and their clinical implications in peri- and postmenopause. The PCOS phenotype ameliorates with ageing and limited available data suggest that there is no further deterioration in cardiometabolic profile in women with PCOS after menopause. Accordingly, the risk of cardiovascular disease in ageing women with PCOS seems to be no different from those without PCOS and lower than previously anticipated based on their risk during reproductive years. Regarding other comorbidities including sleep apnoea, mood disorders and endometrial cancer, it is difficult to determine the true risk in older women with PCOS due to the confounding factors and lack of long-term cohort studies. Large, prospective studies on community-based and well-phenotyped PCOS cohorts with extended follow-up into late menopause are needed to confirm these findings.

PREVALENCE OF OBESITY AND ITS IMPACT ON OUTCOME IN PATIENTS WITH COVID-19: A SYSTEMATIC REVIEW AND META-ANALYSIS

Nafiye Helvacı¹, Nesrin Damla Eyupoglu², Erdem Karabulut³, Bulent Okan Yildiz²

Front Endocrinol (Lausanne). 2021 Feb 25;12:598249. doi: 10.3389/fendo.2021.598249. eCollection 2021. PMID: 33716962 PMCID: PMC7947815 DOI: 10.3389/fendo.2021.598249

Background and objective: Obesity has been reported as a risk factor for adverse outcomes in COVID-19. However, available studies presenting data on obesity prevalence in patients with COVID-19 have conflicting results. The objective of this systematic review and meta-analysis is to evaluate the prevalence of obesity in these patients and to stratify the estimates by illness severity.

Methods: We performed a literature search with the use of Medline/PubMed and Google Scholar database from December 1, 2019 to June 27, 2020 and systematically reviewed studies reporting the number of obese patients with real-time reverse transcriptase polymerase chain reaction (rRT-PCR)-confirmed SARS-CoV-2 infection.

Results: Nineteen studies were identified. The pooled obesity prevalence rates were 0.32 (95% CI: 0.24-0.41) in hospitalized patients, 0.41 (95% CI: 0.36-0.45) in patients admitted to intensive care unit, 0.43 (95% CI: 0.36-0.51) in patients needing invasive mechanical ventilation (IMV), and 0.33 (95% CI: 0.26-0.41) in those who died. Obesity was associated with a higher risk for hospitalization [Odds ratio (OR): 1.3, 95% CI: 1.00-1.69; I^2 52%, $p = 0.05$], ICU admission (OR: 1.51, 95% CI: 1.16-1.97; I^2 72%, $p = 0.002$), and IMV requirement (OR: 1.77, 95% CI: 1.34-2.35; I^2 0%, $p < 0.001$). The increase in risk of death did not reach statistical significance (OR: 1.28, 95% CI: 0.76-2.16, $p = 0.35$) which might be due to obesity survival paradox and/or unidentified factors.

Conclusions: Our data indicate that obese subjects may be at higher risk for serious illness if infected and obesity may play a role in the progression of COVID-19.

AMELIORATING EFFECTS OF N-ACETYL CYSTEINE AGAINST EARLY LIVER DAMAGE OF RADIOIODINE IN RATS

Gonul Koc¹, Serife Mehlika Kuskonmaz¹, Koray Demirel², Gokhan Koca², Aylin Akbulut², Nihat Yumusak³, Mehmet Senes⁴, Gul Kirtil⁴, Meliha Korkmaz², Cavit Culha¹

Nucl Med Commun. 2021 Nov 1;42(11):1195-1201. doi: 10.1097/

MNM.0000000000001454. PMID: 34149008 DOI: 10.1097/MNM.0000000000001454

Objective: The present study was aimed to explore the potential ameliorating effects of N-acetyl cysteine (NAC) against radioiodine (RAI)-induced early liver damage.

Methods: Thirty Wistar Albino male rats were arbitrarily allocated into three groups each containing 10 rats: the control group (group 1); the RAI group (group 2), oral 111 MBq/kg radioiodine was administered to rats; the RAI + NAC group (group 3), 150 mg/kg/day intraperitoneal NAC treatment was initiated 3 days prior to the RAI administration and continued for 10 days. Liver samples were obtained 24 h after the last dose of NAC therapy for biochemical and histopathologic evaluation.

Results: In the RAI + NAC group, the histopathologic damage was found significantly less than in the RAI group for whole parameters except inflammatory cell infiltration ($P < 0.05$). Unlike the RAI group which had marked histopathologic damage, the RAI + NAC group had only mild histologic activity index scores with no granuloma formation observed. Oxidative stress parameters were demonstrated that the NAC treatment significantly decreased the tissue malondialdehyde (MDA) and catalase levels and increased the total sulfhydryl (total sulfhydryl) levels when compared to the RAI group ($P < 0.01$).

Conclusion: The outcomes of the study exhibited that the NAC treatment improved RAI-induced early liver damage. This improving effect considered to be caused by its antioxidant, anti-inflammatory, and likely vasodilator properties of NAC. Having advantages such as inexpensive, easy access, and tolerability, the NAC can be used as a radioprotective agent, especially in patients with liver diseases and requiring RAI treatment.

QUANTITATIVE INVESTIGATION OF THE EFFECT OF SURGICALLY INDUCED HYPOPARATHYROIDISM ON CATARACT DEVELOPMENT

Ali Mert Koçer¹, Mehmet Ali Şekeroğlu², Çağatay Emir Önder³, Seda Çevik², Furkan Emre Söğüt², Şerife Mehlika Kuşkonmaz³, Sibel Doğuizi²

J Bone Miner Metab. 2022 Jan;40(1):92-100. doi: 10.1007/s00774-021-01257-8. Epub

2021 Jul 27. PMID: 34313840 DOI: 10.1007/s00774-021-01257-8

Introduction: Although cataract formation is known in hypoparathyroidism, lens clarity and its correlation with clinical parameters have not been investigated quantitatively before in patients with hypoparathyroidism. The aim of this study was to compare the crystalline lens clarity of patients with surgically induced hypoparathyroidism and healthy subjects.

Materials and methods: Forty female patients with surgically induced hypoparathyroidism and 38 age-matched healthy female subjects were enrolled in this study. Scheimpflug corneal topography was performed to measure lens density (LD) and thickness (LT). Serum calcium, inorganic phosphorus, parathyroid hormone (PTH) levels, and disease duration were recorded.

Results: No statistically significant difference was observed between the hypoparathyroidism and control groups in the Pentacam densitometry zones 1-2-3, LT, and average and maximum LD ($p > 0.05$ for all). Nine blue-dot-like, two cortical, and two posterior subcapsular cataracts were detected in the hypoparathyroidism group. The frequency of total and blue-dot-like cataracts was significantly higher in the hypoparathyroidism group than in the control group ($p = 0.008$ and $p = 0.002$, respectively). In the hypoparathyroidism group, a significant correlation was observed between the maximum LD and the hypoparathyroidism duration ($\beta = 0.420$, $p = 0.017$), and the maximum LD and serum PTH level ($\beta = -0.332$, $p = 0.049$).

Conclusion: The clarity of the crystalline lens may decrease in surgically induced hypoparathyroidism patients depending on the disease duration and PTH levels. Additionally, this study detected an increased frequency of blue-dot-like cataract in the patient group, which may be due to the effect of hypoparathyroidism.

SARS-COV-2 VACCINE-INDUCED THYROIDITIS: SAFETY OF REVACCINATIONS AND CLINICAL FOLLOW-UP

Seda Hanife Oğuz¹, Süleyman Nahit Şendur¹, Burçin Gönül İremli¹, Alper Gürlek¹, Tomris Erbas¹, Uğur Ünlütürk¹

J Clin Endocrinol Metab. 2022 Apr 19;107(5):e1823-e1834. doi: 10.1210/clinem/

dgac049. PMID: 35100622 PMCID: PMC8903317 DOI: 10.1210/clinem/dgac049

Context: The number of reported cases with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) vaccine-induced subacute thyroiditis (SAT) and Graves' disease (GD) is growing. However, active debate continues about managing such side effects and the safety of repeat or booster doses of the vaccines in such cases.

Objectives: This study aims to present long-term clinical follow-up of SARS-CoV-2 vaccine-induced SAT or GD cases and provide data regarding the safety of revaccinations.

Methods: Patients diagnosed with SARS-CoV-2 vaccine-induced SAT or GD were included. Data regarding the long-term clinical follow-up of SARS-CoV-2 vaccine-induced SAT and GD cases and outcomes of repeat or booster SARS-CoV-2 vaccinations were documented. The literature, including cases of SARS-CoV-2 vaccine-induced SAT or GD, was reviewed.

Results: Fifteen patients with SARS-CoV-2 vaccine-induced SAT and 4 with GD were included. Pfizer/BioNTech COVID-19 vaccine (BNT162b2) was associated with symptoms in a majority of cases with SAT and all with GD. Median time from vaccination to symptom onset was 7 and 11.5 days, respectively, while 7 and 2 patients required medical treatment in SAT and GD groups, respectively. Remission was documented in 10 SAT patients, with a median time to remission of 11.5 weeks. No exacerbation/recurrence of SAT occurred in 7 of 9 patients who received a repeat vaccination dose, while symptoms of SAT worsened following the second vaccination in 2 cases. None of the patients experienced severe side effects that could be associated with revaccinations.

Conclusions: Revaccinations appear to be safe in patients with SARS-CoV-2 vaccine-induced SAT cases, while more evidence is needed regarding SARS-CoV-2 vaccine-induced GD.

QUALITY OF ENGLISH-LANGUAGE VIDEOS AVAILABLE ON YOUTUBE AS A SOURCE OF INFORMATION ON OSTEOPOROSIS

Mustafa Erku Onder¹, Cagatay Emir Onder², Orhan Zengin³

Arch Osteoporos. 2022 Jan 20;17(1):19. doi: 10.1007/s11657-022-01064-2. PMID: 35059873 PMCID: PMC8776324 DOI: 10.1007/s11657-022-01064-2

Osteoporosis awareness is essential for preventing osteoporotic fractures. Social media platforms have enormous potential to both support and deter patients' decisions on healthcare. The current study demonstrated that the majority of YouTube videos on osteoporosis provide useful information with sufficient quality.

Purpose: YouTube is the most popular video-sharing platform for patients seeking online information about their medical condition. However, there are concerns regarding the accuracy and quality of YouTube content. We aimed to analyze the quality of English-language YouTube videos on osteoporosis.

Methods: A YouTube search was performed on April 21, 2021, using the keywords "osteoporosis," "osteoporosis exercise," "osteoporosis diet," and "osteoporosis treatment." The reviewers recorded the content, source, and detailed characteristics of the included videos. The reliability and quality of the videos were analyzed using the modified DISCERN score and Global Quality Scale (GQS) score by a rheumatologist and endocrinologist.

Results: Of the 400 videos screened, 238 were included in the study after applying the exclusion criteria. A total of 205 (86.1%) videos revealed useful information about osteoporosis whereas 33 (13.9%) were misleading. In terms of quality, 48% of the videos were of high quality, 34% were of moderate quality, and 18% were of low quality. The videos posted by universities and professional organizations had the highest modified DISCERN and GQS scores indicating high reliability and quality.

Conclusion: This study demonstrated that the majority of YouTube videos on osteoporosis contained useful information with sufficient quality. However, physicians should be aware of misleading information and correct any misinformation during face-to-face meetings with patients. YouTube should consider creating partnerships with professional organizations in the field of osteoporosis to produce high-quality videos in line with their new health content policy.

EFFECTS OF PERIODONTAL AND BISPHOSPHONATE TREATMENT ON THE GINGIVAL CREVICULAR LEVELS OF SCLEROSTIN AND DICKKOPF-1 IN POSTMENOPAUSAL OSTEOPOROSIS WITH AND WITHOUT PERIODONTITIS

Feyza Otan Ozden¹, Esra Demir², Müge Lutfioglu¹, Elif Eser Acarel¹, Birsen Bilgici³, Aysegül Atmaca⁴

J Periodontol Res. 2022 Jun 4. doi: 10.1111/jre.13023. Online ahead of print. PMID: 35665506 DOI: 10.1111/jre.13023

Objective and background: Both periodontitis and osteoporosis are associated with osteoclast-related bone resorption. Bone metabolism is regulated by wingless-type MMTV integration site family (WNT), and WNT/ β -catenin signals are controlled by physiological antagonists including dickkopf-1 (DKK-1) and sclerostin (SOST). This study examined the effects of periodontal and bisphosphonate (BP) treatment on the gingival crevicular fluid (GCF) sclerostin (SOST) and dickkopf-related protein-1 (DKK-1) levels in osteoporotic and systemically healthy postmenopausal women with and without periodontitis.

Materials and methods: A total of 48 postmenopausal women were divided into 4 groups (n = 12) according to periodontal health and osteoporosis status, as follows: Group OP/P: subjects with both osteoporosis and periodontitis; Group P: systemically healthy subjects with periodontitis; Group OP: periodontally healthy subjects with osteoporosis; Group H: systemically and periodontally healthy controls. Clinical data and GCF SOST and DKK-1 levels of the participants were collected at baseline and at 6 and 12 months following the initiation of periodontal and/or BP treatment in the experimental groups. GCF SOST and DKK-1 data were obtained by ELISA.

Results: Clinical improvements were observed in all experimental groups. GCF SOST and DKK1 baseline levels varied significantly between groups due to periodontal disease (p < .001). Following treatment, significant increases in SOST and DKK-1 concentrations and significant decreases in total amounts of SOST were observed in both periodontitis groups (OP/P, P). However, while total amounts of DKK-1 decreased in Group OP/P, in Group P, these amounts had significantly increased at 12 months post-treatment (p < .05). At both 6 and 12 months post-treatment, SOST and DKK1 total amounts in Groups OP/P, OP, and H were similar (p > .05), whereas significant differences were observed between Groups H and P, indicating a deviation from periodontal health in Group P (p < .01).

Conclusions: Significant changes in GCF SOST and DKK-1 levels were observed among women with osteoporosis who received both periodontal and BP treatment. A more detailed examination of how these treatment protocols can be combined may lead to new therapeutic approaches towards periodontal disease.

EVALUATION OF DIABETES SELF-MANAGEMENT EDUCATION IN GERIATRICS WITH TYPE 2 DIABETES IN TURKEY

Emre S Saygili¹², Ersen Karakiliç³, Serap Yasa⁴, Emine Şen⁴

Minerva Endocrinol (Torino). 2021 Dec;46(4):389-395. doi: 10.23736/S2724-6507.21.03606-X. Epub 2021 Oct 20. PMID: 34669320 DOI: 10.23736/S2724-6507.21.03606-X

Background: This study was conducted to evaluate the diabetes education efficiency of individuals over 65 years old in Turkey, which has the highest prevalence of diabetes in Europe.

Methods: We retrospectively evaluated 320 patients who attended Turkey diabetes self-management group education program (TDSMEP) between 2016 and 2020 in a secondary hospital. Participants who have been followed up for a maximum of 9 months are grouped as over 65 years old and under.

Results: Of the 320 patients, 114 formed the geriatric group and 206 the non-geriatric group. After the training, the number of patients who had HbA1c $\leq$ 7% increased significantly in both the geriatric (28.1-45.6%) and non-geriatric (19.9-42.2%) (P=0.001) groups. After the training, similar HbA1c goals were achieved in the geriatric and non-geriatric groups. The most significant HbA1c decrease was observed at the 3rd month of follow-up and remained stable until the 9th month. In logistic regression analysis, the factors affecting HbA1c failure (HbA1c > 7%) after training in the geriatric group were long diabetes duration (OR=1.07, 95% CI: 1.02-1.13, P=0.01), high basal HbA1c levels (OR=1.31, 95% CI: 1.03-1.67, P=0.03), and low education level (OR=3.88, 95% CI: 1.54-9.76, P=0.001).

Conclusions: This is the first study to evaluate the effectiveness of TDSMEP for geriatric individuals whose HbA1c $\leq$ 7% increased from 28% to 45.6% during follow-up after the training. TDSMEP is recommended for all adult age groups, regardless of age range.

CURRENT GAPS IN MANAGEMENT AND TIMELY REFERRAL OF CARDIORENAL COMPLICATIONS AMONG PEOPLE WITH TYPE 2 DIABETES MELLITUS IN THE MIDDLE EAST AND AFRICAN COUNTRIES: EXPERT RECOMMENDATIONS

Alper Sonmez¹, Hani Sabbour²³, Akram Ectay⁴, Abbas Mahdi Rahmah⁵, Amani Matook Alhozali⁶, Fahad Sulman Al Sabaan⁷, Fares H Haddad⁸, Hinde Iraqi⁹, Ibrahim Elebrashy¹⁰, Samir N Assaad¹¹, Zaheer Bayat¹², Zeynep Osar Siva¹³, Mohamed Hassanein¹⁴¹⁵¹⁶

J Diabetes. 2022 May;14(5):315-333. doi: 10.1111/1753-0407.13266. Epub 2022 Apr 17. PMID: 35434900 DOI: 10.1111/1753-0407.13266

The upsurge of type 2 diabetes mellitus is a major public health concern in the Middle East and North Africa (MENA) and Africa (AFR) region, with cardiorenal complications (CRCs) being the predominant cause of premature morbidity and mortality. High prevalence of cardiometabolic risk factors, lack of awareness among patients and physicians, deficient infrastructure, and economic constraints lead to a cascade of CRCs at a significantly earlier age in MENA and AFR. In this review, we present consensus recommendations by experts in MENA and AFR, highlighting region-specific challenges and potential solutions for management of CRCs. Health professionals who understand sociocultural barriers can significantly increase patient awareness and encourage health-seeking behavior through simple educational tools. Increasing physician knowledge on early identification of CRCs and personalized treatment based on risk stratification, alongside optimum glycemic control, can mitigate therapeutic inertia. Early diagnosis of high-risk people with regular and systematic monitoring of cardiorenal parameters, development of region-specific care pathways for timely referral to specialists, followed by guideline-recommended care with novel antidiabetics are imperative. Adherence to guideline-recommended care can catalyze utilization of sodium glucose cotransporter 2 inhibitors and glucagon-like peptide 1 receptor agonists with demonstrated cardiorenal benefits thus paving the way for overcoming care gaps in a cost-effective manner. Leveraging digital technology like electronic medical records can help generate real-world data and provide insights on voids in adoption of newer antidiabetic medications. A patient-centric approach, collaborative care among physicians from different specialties, alongside involvement of policy makers are key for improving patient outcomes and quality of care in MENA and AFR.

A CROSS-SECTIONAL STUDY OF OVERTREATMENT AND DEINTENSIFICATION OF ANTIDIABETIC AND ANTHYPERTENSIVE MEDICATIONS IN DIABETES MELLITUS: THE TEMD OVERTREATMENT STUDY

Alper Sonmez¹, Ilker Tasci², Ibrahim Demirci³, Cem Haymana³, Cem Barcin⁴, Hasan Aydin⁵, Sevki Cetinkalp⁶, Feyza Yener Ozturk⁷, Kamile Gul⁸, Tevfik Sabuncu⁹, İlhan Satman¹⁰, Fahri Bayram¹¹, TEMD Study Group
Diabetes Ther. 2020 May;11(5):1045-1059. doi: 10.1007/s13300-020-00779-0. Epub 2020 Feb 22. PMID: 32088879 PMCID: PMC7193034 DOI: 10.1007/s13300-020-00779-0

Introduction: Targeting better glycosylated hemoglobin (HbA1c) and blood pressure (BP) goals may endanger older adults with type 2 diabetes mellitus (T2DM). Overtreatment of T2DM and hypertension is a trending issue, although undertreatment is still common. We investigated the rates and predictors of overtreatment and undertreatment of glycemia and BP in older adults with T2DM and physicians' attitudes to deintensify or intensify treatment.

Methods: Data from older adults (≥ 65 years) enrolled in a large nationwide T2DM survey in 2017 across Turkey were analyzed. Overtreatment of glycemia was defined as HbA1c $<6.5\%$ plus the use of ≥ 2 oral antihyperglycemics or insulin, and BP overtreatment was defined as systolic BP (SBP) <120 mmHg or diastolic BP (DBP) <65 mmHg plus the use of ≥ 2 drugs. Undertreatment of glycemia was defined as HbA1c $>9\%$, and BP undertreatment was defined as SBP >150 mmHg or DBP >90 mmHg. Deintensification or intensification rates were calculated according to treatment modification initiated by the treating physician(s).

Results: The rate of overtreatment in the glycemia group ($n = 1264$) was 9.8% ($n = 124$) and that in the BP group ($n = 1052$) was 7.3% ($n = 77$), whereas the rate of undertreatment was 14.2% ($n = 180$) and 15.2% ($n = 160$), respectively. In the adjusted model, use of oral secretagogues (sulfonylureas or glinides) (odds ratio [OR] 1.94, 95% confidence interval [CI] 1.2-3.1) and follow-up at a private clinic (OR 1.81, 95% CI 1.0-3.3) were predictors of glycemia overtreatment. BP overtreatment was independently associated with the use insulin-based diabetes therapies (OR 1.86, 95% CI 1.14-3.04). There was no independent association of BP undertreatment to the study confounders. The deintensification and intensification rates were 25 and 75.6%, respectively, for glycemia and 10.9 and 9.2%, respectively, for BP.

Conclusions: The results show that one in ten older adults with T2DM are overtreated while one in four require modification of their current antihyperglycemic and antihypertensive treatments. Physicians are eager to intensify medications while they largely ignore deintensification in diabetes management. These results warrant enforced measures to improve the care of older adults with T2DM.

Trial registration: ClinicalTrials.gov identifier, NCT03455101.

SERUM ZONULIN LEVELS IN TYPE 2 DIABETES PATIENTS WITH DIABETIC KIDNEY DISEASE

Fevziye Burcu Sirin¹, Hakan Korkmaz², Ismet Eroglu³, Baris Afsar⁴, Duygu Kumbul Doguc⁵

Endokrynol Pol. 2021;72(5):545-549. doi: 10.5603/EPa.2021.0056. Epub 2021 May 31. PMID: 34057189 DOI: 10.5603/EPa.2021.0056

Introduction: Recent data have shown that diabetic kidney disease (DKD) is associated with abnormal gut microbiota composition. Zonulin is a physiological tight junction modulator and an intestinal permeability marker. In this study we aimed to investigate serum levels of zonulin and interleukin 6 (IL-6) in patients with type 2 diabetes mellitus (T2DM) and different levels of albuminuria.

Material and methods: Ninety patients with T2DM and 30 healthy controls (HC) aged between 18 and 65 years were enrolled in the study. T2DM patients were divided into three groups as patients with normoalbuminuria ($n = 30$), microalbuminuria ($n = 30$), and macroalbuminuria ($n = 30$). Serum zonulin and IL-6 levels were measured by ELISA method.

Results: There was no significant difference between groups in terms of age, gender, serum ALT, LDL-C, HDL-C, and zonulin levels ($p > 0.05$). Significant differences between groups were present for the duration of diabetes ($p < 0.001$), body mass index ($p < 0.001$), fasting blood glucose ($p < 0.001$), creatinine ($p < 0.001$), uric acid ($p = 0.037$), triglyceride ($p = 0.003$), total cholesterol ($p < 0.001$), glycosylated haemoglobin ($p < 0.001$), and IL-6 ($p < 0.001$) levels. IL-6 levels were significantly increased in the microalbuminuria

and macroalbuminuria groups compared to the HC group, but no significant difference was determined between the HC and normoalbuminuria group. In patients with diabetic kidney disease, a significant positive correlation was found between zonulin with IL-6 and proteinuria ($\rho = 0.296$, $p = 0.008$; $\rho = 0.190$, $p < 0.047$, respectively). The serum IL-6 level was positively correlated with microalbuminuria and proteinuria ($\rho = 0.451$, $p < 0.001$; $\rho = 0.425$, $p < 0.001$, respectively).

Conclusions: We suggest that the serum zonulin level is not a promising biomarker to assess the severity of DKD in patients with long-standing T2DM.

ASPROSIN, VISFATIN AND SUBFATIN AS NEW BIOMARKERS OF OBESITY AND METABOLIC SYNDROME

K Ugur, F Erman, S Turkoglu, Y Aydin, A Aksoy, A Lale, Z K Karagöz, I Ugur, R F Akkoc, M Yalniz

Eur Rev Med Pharmacol Sci. 2022 Mar;26(6):2124-2133. doi: 10.26355/eurrev_202203_28360. PMID: 35363362 DOI: 10.26355/eurrev_202203_28360

Objective: Metabolic syndrome (MetS) and obesity are important public health problems associated with adipose tissue mass. Asprosin, visfatin, and subfatin are new members of which fate in MetS and obesity has not been fully revealed yet. Thus, this study was to investigate the association between asprosin, visfatin, subfatin, and biochemical values, demographic data, and body composition measurement values in MetS patients with and without obesity.

Patients and methods: Blood samples were taken from a total of 90 people, including 31 MetS patients with obesity, 29 MetS patients without obesity, and 30 healthy (control). Asprosin, visfatin, and subfatin were studied by the ELISA method.

Results: There was a negative correlation between asprosin and Body Mass Index (BMI) in the MetS + Obese group. The correlations between asprosin and urea and fasting insulin (FI) levels in the MetS group were positive and statistically significant ($p < 0.05$). While there was a statistically significant negative correlation ($p < 0.05$) between visfatin and BMI in the MetS + Obese group, the correlation with waist circumference in the MetS + Obese and MetS groups was statistically significant and negative ($p < 0.05$). There was a statistically significant negative relationship ($p < 0.05$) between aspartate aminotransferase value and visfatin. The results between visfatin values and asprosin and subfatin in all groups were significant ($p < 0.05$).

Conclusions: There is a direct relationship between circulating amounts of asprosin, visfatin, and subfatin hormones and age, weight, height, diastolic blood pressure, high-density lipoprotein-cholesterol, aspartate aminotransferase, alanine transaminase, and creatinine. Therefore, asprosin, visfatin, and subfatin hormones are the new biomarkers of metabolic turbulence.

ATHEROSCLEROSIS DEVELOPMENT AND PROGRESSION: THE ROLE OF ATHEROGENIC SMALL, DENSE LDL

Jelena Vekic¹, Aleksandra Zeljkovic¹, Arrigo F G Cicero², Andrej Janez³, Anca Pantea Stoian⁴, Alper Sonmez⁵, Manfredi Rizzo⁶

Medicina (Kaunas). 2022 Feb 16;58(2):299. doi: 10.3390/medicina58020299. PMID: 35208622 PMCID: PMC8877621 DOI: 10.3390/medicina58020299

Atherosclerosis is responsible for large cardiovascular mortality in many countries globally. It has been shown over the last decades that the reduction of atherosclerotic progression is a critical factor for preventing future cardiovascular events. Low-density lipoproteins (LDL) have been successfully targeted, and their reduction is one of the key preventing measures in patients with atherosclerotic disease. LDL particles are pivotal for the formation and progression of atherosclerotic plaques; yet, they are quite heterogeneous, and smaller, denser LDL species are the most atherogenic. These particles have greater arterial entry and retention, higher susceptibility to oxidation, as well as reduced affinity for the LDL receptor. Increased proportion of small, dense LDL particles is an integral part of the atherogenic lipoprotein phenotype, the most common form of dyslipidemia associated with insulin resistance. Recent data suggest that both genetic and epigenetic factors might induce expression of this specific lipid pattern. In addition, a typical finding of increased small, dense LDL particles was confirmed in different categories of patients with elevated cardiovascular risk. Small, dense LDL is an independent risk factor for cardiovascular diseases, which emphasizes the clinical importance of both the quality and the quantity of LDL. An effective management of atherosclerotic disease should take into account the presence of small, dense LDL in order to prevent cardiovascular complications.

A NEW LOOK AT NOVEL CARDIOVASCULAR RISK BIOMARKERS: THE ROLE OF ATHEROGENIC LIPOPROTEINS AND INNOVATIVE ANTIDIABETIC THERAPIES

Jelena Vekic¹, Aleksandra Zeljkovic¹, Khalid Al Rasadi², Mustafa Cesur³, José Silva-Nunes⁴, Anca Pantea Stoian⁵, Manfredi Rizzo⁶

Metabolites. 2022 Jan 24;12(2):108. doi: 10.3390/metabo12020108. PMID: 35208183

PMCID: PMC8879153 DOI: 10.3390/metabo12020108

The presence of residual cardiovascular disease (CVD) risk is a current dilemma in clinical practice; indeed, despite optimal management and treatment, a considerable proportion of patients still undergo major CV events. Novel lipoprotein biomarkers are suggested as possible targets for improving the outcomes of patients at higher risk for CVD, and their impact on major CV events and mortality have previously been investigated. Innovative antidiabetic therapies have recently shown a significant reduction in atherogenic lipoproteins, beyond their effects on glucose parameters; it has also been suggested that such anti-atherogenic effect may represent a valuable mechanistic explanation for the cardiovascular benefit of, at least, some of the novel antidiabetic agents, such as glucagon-like peptide-1 receptor agonists. This emphasizes the need for further research in the field in order to clearly assess the effects of innovative treatments on different novel biomarkers, including atherogenic lipoproteins, such as small dense low-density lipoprotein (LDL), lipoprotein(a) (Lp(a)) and dysfunctional high-density lipoprotein (HDL). The current article discusses the clinical importance of novel lipid biomarkers for better management of patients in order

CLINICAL PREDICTORS OF INCIPIENT VERTEBRAL FRACTURES AND BONE MINERAL DENSITY IN KIDNEY TRANSPLANT PATIENTS

Dilek Gogas Yavuz¹, Kadriye Aydin², Tugce Apaydin³, Arzu Velioglu⁴, Meral Mert⁵, Zafer Pekkolay⁶, Ergun Parmaksiz⁷, Meral Mese⁷, Ayse Esen Pazir⁸, Emre Aydın⁹, Onur Bugdayci¹⁰, Serhan Tuglular⁴

Eur Spine J. 2022 Apr 4. doi: 10.1007/s00586-022-07162-6. Online ahead of print.

PMID: 35376984 DOI: 10.1007/s00586-022-07162-6

Purpose: Kidney transplant recipients are prone to metabolic bone diseases and consequent fractures. This study aimed to evaluate the incidence of incipient vertebral fractures, osteopenia, osteoporosis, and the clinical factors associated with incipient vertebral fractures in a group of kidney transplant patients.

Methods: Two hundred sixty-four patients (F/M 124/140, 45.3 ± 13 years) who had undergone kidney transplantation in tertiary care centers were included. Vertebral fractures were assessed semiquantitatively using conventional thoracolumbar lateral radiography in 202 of the patients.

Results: Vertebral fractures were observed in 56.4% (n = 114) of the study group. The frequency of osteoporosis was 20.0% (53 of 264 patients), and osteopenia was 35.6% (94 of 264 patients). Bone mineral density (BMD) levels were in the normal range in 40.3% (n = 46) of the subjects with vertebral fractures. It was in the osteoporotic range in 20.1% (n = 23) and the osteopenic range in 40.3% (n = 46). Vertebral fractures were associated with age, duration of hemodialysis, BMI, and femoral neck Z score (R² 37.8%, p = 0.027).

Conclusion: As incipient vertebral fractures can be observed in patients with normal BMD levels in kidney transplant recipients, conventional X-ray screening for vertebral fractures may be beneficial for a proper therapy decision of metabolic bone disease in kidney transplant recipients.

KİTAP BÖLÜMÜ

- Nutraceuticals and cardiovascular disease
Editör: Arrigo F.G Cicero - Manfredi Rizzo
Bölüm: Nutraceuticals for Non-Alcoholic fatty liver disease
Alper Sönmez, Cemal Nuri Ercin, Mustafa Cesur
https://link.springer.com/chapter/10.1007/978-3-030-62632-7_9
- Diabetic Neuropathy
Editör: Mitra Tavakoli
Bölüm: Classification, risk factors, nd clinical presentation diabetic neuropathy
Dilek Gogas Yavuz
<https://doi.org/10.1016/B978-0-12-820669-0.00014-1>



ÜYELERİMİZDEN HABERLER

- Üyelerimizden Gazi Üniversitesi Tıp Fakültesi, İç Hastalıkları Anabilim Dalı ve Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı Başkanı Sayın **Prof. Dr. İlhan Yetkin** emekli olmuştur. Sayın **Prof. Dr. İlhan Yetkin**'e sağlıklı bir emeklilik dönemi dileriz.



- Clinical Endocrinology adlı dergide 2021 yılında yayınlanan ve üyelerimizden **Prof. Dr. Barış Akıncı, Prof. Dr. Ramazan Gen, Doç. Dr. Ilgın Yıldırım Şimşir, Doç. Dr. Banu Yürekli, Doç. Dr. Nilufer Özdemir** ve **Uzm. Dr. Süleyman Cem Adıyaman**'ın yazarları arasında bulunduğu "**Cardiac phenotype in familial partial lipodystrophy**" başlıklı makale Society for Endocrinology'nin beş en iyi makale ödülüne layık görülmüştür. Üyelerimizi kutlar, başarılarının devamını dileriz.

Yayın detaylarına aşağıdaki linkten ulaşabilirsiniz.

<https://pubmed.ncbi.nlm.nih.gov/33502018/>



YENİ ÜYELERİMİZ

Dr. Özlem Kanburoğlu Meletli	<i>Karadeniz Teknik Üniversitesi Tıp Fakültesi, Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, Trabzon</i>
Dr. Begüm Küver	<i>SBÜ İstanbul Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi, Endokrinoloji ve Metabolizma Kliniği, İstanbul</i>
Dr. Şekure Demet Küçük	<i>Adana Şehir Hastanesi Endokrinoloji ve Metabolizma Hastalıkları Bilim Dalı, Adana</i>

Türkiye Endokrinoloji ve Metabolizma Derneği Bülteni

Türkiye Endokrinoloji ve Metabolizma Derneği'nce
Üç ayda bir online yayınlanır

Yayın Türü: Yaygın süreli

TEMĐ Adına Sahibi Prof. Dr. Ayşegül Atmaca

Sorumlu Yazı İşleri Müdürü Prof. Dr. Mustafa Kulaksızoğlu

Yayın Danışma Kurulu Prof. Dr. Fazıl Mustafa Cesur,
Prof. Dr. Sibel Güldiken, Prof. Dr. Dilek Gogas Yavuz,
Prof. Dr. İbrahim Şahin, Prof. Dr. Melek Eda Ertörer

Türkiye Endokrinoloji ve Metabolizma Derneği'nce 3 ayda bir yayınlanır.

TEMĐ bülteninde yayınlanacak derneğimiz ile ilgili haberlerin bekletilmeksizin ve en geç her ayın 1'ine kadar TEMĐ merkezine ulaşmış olması gerekmektedir.

Yönetim Yeri: Meşrutiyet Cad. Ali Bey. Apt. 29/12, Kızılay 06420 Ankara

Tel: (0312) 425 20 72 **Faks:** (0312) 425 20 97

E-posta: president@temd.org.tr

Grafik Tasarım: BAYT Bilimsel Araştırmalar Basın Yayın ve Tanıtım Ltd. Şti.

Tel: (0312) 431 30 62 • **Faks** (0312) 431 36 02 • **E-posta:** info@bayt.com.tr