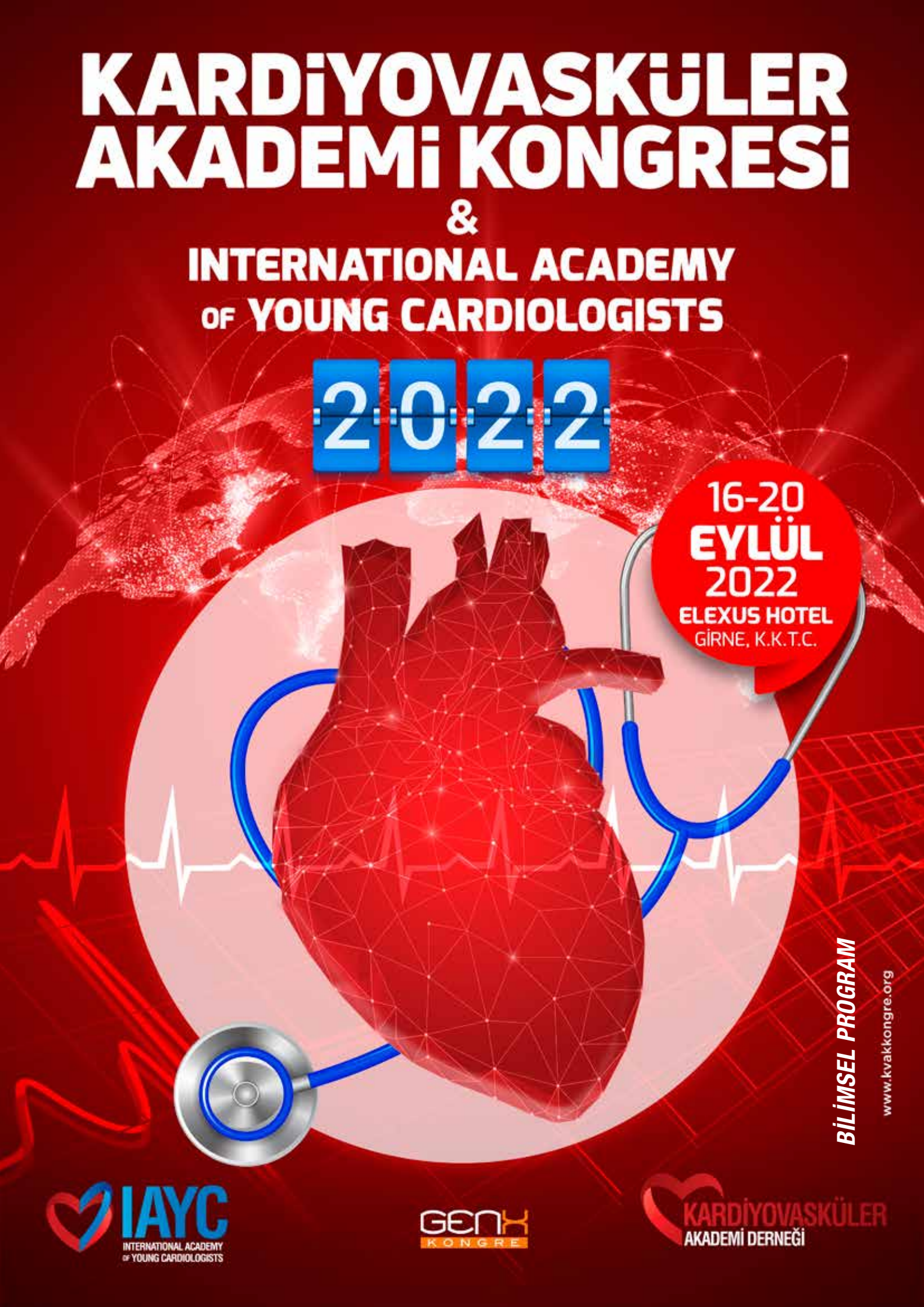
KARDİYOVASKÜLER AKADEMİ KONGRESİ

&

INTERNATIONAL ACADEMY OF YOUNG CARDIOLOGISTS

2022



16-20 EYLÜL 2022

ELEXUS HOTEL

GİRNE, K.K.T.C.

BİLİMSEL PROGRAM

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IAYC INTERNATIONAL ACADEMY OF YOUNG CARDIOLOGISTS

GENX KONGRE

KARDİYOVASKÜLER AKADEMİ DERNEĞİ

Değerli Meslektaşlarımız,

Kardiyovasküler Akademi Derneği Ulusal Kongresi, **16–20 Eylül 2022** tarihleri arasında, Elexus Hotel KKTC'de gerçekleşecektir.

"Önce siz, öncü biz" ilkesi ile kongremizde her zaman olduğu gibi kardiyolojinin gelecek yıldızları olan siz genç kardiyoloji hekimlerini, her anlamda genç kalmayı bilmiş, alanında öncü olan deneyimli öğretim üyeleri ile buluşturuyoruz. Bilimsel verilerin ışığında, farklı görüşlerin özgürce tartışıldığı oturumlarımızda, kardiyoloji alanındaki en son gelişmelerle birlikte, günlük hayatta siz değerli meslektaşlarımızın en çok karşılaştığı ve zorlandığı sorunlara da çözümler bulacağız. Günlük programımızda güncel kılavuz önerileri ve randomize klinik araştırma sonuçları, pratik hayatımızda karşılaşılan durumların yönetimi ve bu durumların olgu bazlı değerlendirmesi yer alacaktır. 'Salon konuşsun' oturumları ile genç kardiyologlar, örnek vakalar ışığında kardiyolojideki gri alanları hep birlikte tartışacak ve pratik hayatlarındaki deneyimlerini diğer meslektaşları ile paylaşma fırsatı bulacaklardır.

Bu yıl ilk defa kahve aralarında, KVAK-ARENA alanında, sınırlı katılımcı sayılarıyla spesifik bir tanı ve/veya tedavinin ele alındığı söyleşiler yer alacaktır. Ayrıca genç meslektaşlarımızla beraber yürüterek sonuçlandırdığımız ve gurur kaynağımız olan ulusal klinik araştırma verilerimizi kongremizde ilk defa sizlere sunacağız.

Bilimsel ve yaratıcı düşüncenin ön planda olduğu, fikirlerin özgürce tartışılacağı kongremize Kardiyovasküler Akademi Derneği' nin yaşam biçimine uygun olacak şekilde rahat ve özgür giyim tarzı ile katılabilir ve sunum yapabilirsiniz. Önceki yıllarda olduğu gibi özenle hazırlanmış bilimsel ve sosyal programlarımızla **Kardiyovasküler Akademi Ailesi** olarak sizleri aramızda görmekten büyük mutluluk duyacağız.

Saygılarımızla

Başkan	**Kongre Başkanı**	**Genel Sekreter**	**Bilim Kurulu Başkanları**
Ömer Kozan	Mehdi Zoghi	Berkay Ekici	Selcen Yakar Tülüce Özgür Kırbaş

BİLİM KURULU

A. Oktay Ergene

Ahmet Öz

Berkay Ekici

Burak Ayça

Çağlar Özmen

Ekrem Güler

Elif İlkay Yüce

Erkan Baysal

Hakan Altay

Hasan Güngör

Ilgın Karaca

İpek Türkoğlu

Kaan Okyay

M. Fatih Yılmaz

Mehdi Zoghi

Mesut Demir

Mustafa Yenerçağ

Nihan Turhan Çağlar

Omaç Tüfekçioğlu

Onur Taşar

Ömer Kozan

Özgür Kırbaş

Özlem Arıcan Özlük

Selcen Tülüce

Süleyman Çağan Efe

Uğur Arslan

Veysel Düzen

Veysel Özgür Barış

Yasemin Doğan

Alfabetik olarak sıralanmıştır

KARDİYOVASKÜLER AKADEMİ KONGRESİ

2022

BİLİMSEL PROGRAM

16 Eylül 2022, Cuma

Dr. Ekrem Karakaya Salonu

14:00-14:45 **Yeniliklerin Söylemesi Bizden!**
2021-2022'de klinik pratiğimizi değiştiren çalışmalar
Oturum Başkanları: *Turgut Karabağ, Hüseyin Şenocak*
Panelistler: *Mustafa Doğduş, Evin Bozçalı Polat, Halil Ekren, Bernas Altıntaş*
Girişimsel Kardiyolojide - *İrfan Şahin*
Kardiyak Görüntülemede - *Elif İlkay Yüce*
Aritmi - *Eyüp Özkan*

14:45-15:30 **Özellikli Hasta Grubunda Hipertansiyona Yaklaşım**
Oturum Başkanları: *Hakan Karpuz*
Panelistler: *Gülay Gök, Sinan İnci, Ceyhun Yücel, Özgür Selim Ser*
Gebe-Emziren hipertansif hastaya yaklaşım - *Özgür Kırbaş*
Labil hipertansiyonlu hastaya yaklaşım - *Saadet Avunduk*
Orta veya ciddi aort darlığı olan hipertansif hastaya yaklaşım - *Özge Çetinarslan*

15:30-16:00 Kahve Arası

16:00-16:30 **Uydu Sempozyum**
AstraZeneca
Kardiyovasküler Hastalıkların Tedavisinde Tikagrelor ve Metoprolol'ün Yeri
Konuşmacılar: *Hakan Altay, Ertuğrul Okuyan*

16:30-17:30 **DAPT Tedavisinde Kafa Karışıklığına Son!**
Oturum Başkanları: *Muhammet Raşit Sayın*
Panelistler: *Regaip Zehir, Ömer Görkem Göldağ*
Olgularla DAPT seçimi - *Koray Kalenderoğlu*
Ne kadar sürsün? - *Tuğba Aktemur*
DAPT sonrasında hangi tekli antiagregan ile tedaviye devam edelim? - *Sedat Kalkan*

18:00-18:30 **Açılış Töreni ve Konuşmaları**

17 Eylül 2022, Cumartesi

Kurs Salonu

08:30-09:45 **Ekokardiyografi Kursu: A' dan Z'ye Mitral Kapak**

Moderatör: *Omaç Tüfekçioğlu*

Primer MY ve sekonder MY nin değerlendirilmesi, kapak onarımı için uygun hastaların belirlenmesi, kapak patolojisi etyolojisinin belirlenmesinde 3D EKO'nun yeri - *Gökhan Kahveci*

Mitral kapak darlığında 3D kapak ölçümleri ve değerlendirilmesi - *Çiğdem Koca*

Mitral protez kapak değerlendirilmesi (Pannus, trombüs, missmatcH) - *Mustafa Ozan Gürsoy*

Paravalvuler MY nin 2D ve 3D eko ile belirlenmesi ve hangi hastalara girişim planlanmasının belirlenmesi - *Selma Tiryakioğlu*

Dr. Ekrem Karakaya Salonu

08:30-09:45 **Adım Adım Transkatater Aort Kapak İmplantasyonu Kursu**

Moderatörler: *Ömer Kozan, Teoman Kılıç*

Farklı kapaklar ve implantasyon teknikleri

Acurate Neo - *Can Yücel Karabay*

Evolute R - *Mesut Demir*

Portico - *Mehmet Ertürk*

Edwards Sapien - *Ilgın Karaca*

Meril Myval kapak - *Uğur Arslan*

Olgularla işlem sırasında komplikasyonlarının yönetimi - *Veysel Düzen*

09:45-10:15 **Uydu Sempozyum**

Boehringer Ingelheim

Kalp Yetersizliği Tedavisinde Empagliflozin'in Yeri ve En Güncel Başlıklar

Oturum Başkanı: *Oktay Ergene*

Konuşmacı: *Ahmet Çelik*

10:15-11:00 **Microport Akademi Arenası**

MicroPort

"Şahin Bakışı"

Konuşmacı: *Ertuğrul Okuyan*

Yer: *Akademi ARENA, Stand Alanı*

11:00-11:45 **Keşke olmasaydı!**

Oturum Başkanları: *Muzaffer Değertekin, İbrahim Halil Kurt*

Panelistler: *İbrahim Halil İnanç, Eyüp Avcı, Tarık Yıldırım*

Riskli girişimlerde karşılaştığım komplikasyonlar:

CTO - *Burak Ayça*

Bifurkasyon - *Cengiz Şabanoğlu*

Kalsifik Koroner - *Ekrem Güler*

Sol Ana Koroner - *Ahmet Karagöz*

11:45-12:15 **Uydu Sempozyum**

Daiichi-Sankyo

Klinik Çalışmadan Pratiğe; Edoksaban

Oturum Başkanı: *Bülent Mutlu*

Konuşmacılar: *Serkan Çay, Uğur Önsel Türk*

12:15-13:00 **ESC Kılavuzlarında Yenilikler**

Oturum Başkanları: *Lale Tokgözoğlu, Barış Güngör*

Panelistler: *İsmail Polat, Aykun Hakgör, Özkan Yavçin, Alparslan Şahin, Fatma Can*

Ventriküler aritmiler ve ani ölüm - *Ayhan Küp*

Non-kardiyak cerrahi öncesi preoperatif değerlendirme - *Çetin Mirzaoğlu*

Kardiyo-Onkoloji - *Hülya Yıldırım*

13:00-14:00 Öğle Arası

14:00-14:45 **Salon Konuşsun**

Moderatörler: *Özlem Arıcan Özlük, Ali Aycan Kavala*

Olgu Sunumu Konuşmacısı: *Sinem Çakal*

65 yaşında kadın hastanın bilinen HT (+) DM(+) öyküleri mevcuttur. Bir aydır nefes darlığı şikayeti mevcut. Acil servise nefes darlığında artış, ayaklarda şişlik olması üzerine başvuruyor. Çekilen kontrastsız toraks BT'de bilateral plevral effüzyon ve buzlu cam görünümü mevcut. Hastanın acil serviste alınan Covid PCR (-). EKG: SR (isterseniz AF olup NOAC lar da tartışılabilir) Sol ventrikül hipertrofisi kriterleri (+) HR: 98 atım/dak BNP: 3500 pg/ml. Yapılan EKO'da: Orta mitral yetersizliği ciddi trikuspid yetersizliği LVEF:%60 evre 2 LVDD, biatriyal dilatasyon, IVS:13 mm PW: 13 mm saptandı.

- Medikal takip ve seçenekler / empa ve diğer yeni tedaviler kullanalım mı?
- Cerrahi
- TriKlip

14:45-15:15 **Uydu Sempozyum**

Xarelto ile Zor Sorular Uzman Cevaplar

Oturum Başkanı: *Lale Tokgözoğlu*

Konuşmacılar: *Mert İlker Hayıroğlu, Ahmet Göktuğ Ertem*

15:15-15:45 Kahve Arası

15:45-16:15 **Kısa Sorularla Kalbinizin Sesini Dinleyin!**

Oturum Başkanları: *Ahmet İlker Tekkeşin, Dursun Aras*

Panelistler: *Canan Elif Yıldız , Erkan Baysal, Gül İlayda Berk, Abdulkadir Uslu, Nihan Akar Bayram*

Aritmi tanısında ilaçla provakasyon testleri, kime ne zaman? - *Ömer Şahin*

Aritmi tanısında EKG-holterini nasıl yorumlanmalı? - *Burak Hünük*

Pacemaker polikliniğinde magnet kullanımı - *Alper Kepez*

Asemptomatik Brugada tedavi yaklaşımı nasıl olmalı? - *Çağlar Özmen*

16:15-17:00 **Nadir Kardiyomiyopatileri Nasıl Tanıyalım ve Tedavi Ederim?**

Oturum Başkanı: *Selcen Yakar Tülüce*

Panelistler: *Kadriye Memiç Sancar, Mehtap Yeni, Onur Akhan, Ömer Kümet*

ARVD - *Fahrettin Katkat*

Non-compaction KMP - *Lale Asarcıklı*

Peripartum KMP - *Tufan Çınar*

17:00-17:30 **Uzmanına Danış Koroner Arter Hastalığında Anti-platelet Tedavi**

Oturum Başkanı: *Oktay Ergene*

Panelistler: *Mustafa Yenerçağ, Özge Çetinarslan*

Türkiye'de Koroner Arter Hastalığında Kardiyoloji Uzmanlarının Anti-Platelet Tedavi Tercihleri: APT-TR Anket Çalışmasının ilk sonuçları - *Mehdi Zoghi*

17:30-18:00 **Uzmanından Dinleyelim**

Kalp Hastalarında Egzersiz - *Fizyoterapist Besime Doymaz*

18 Eylül 2022, Pazar

Kurs Salonu

08:30-09:45 **Girişimsel Kursu: Sol Ana Koroner-Bifurkasyon Lezyonlarında…**

Moderatör: *Murat Sucu*

Hangi durumlara provizyonel tercih edelim/etmeyelim? - *Kamil Tülüce*

Adım adım 2 stentli yaklaşım (TAP-Cloutte) - *İlhan İlker Avcı*

Adım adım 2 stentli yaklaşım (DK Crush-Minicrush) - *Onur Taşar*

Dr. Ekrem Karakaya Salonu

08:30-09:45 **Olgularla Aort Kapak Patolojilerini Görüntüleme Kursu**

Moderatör: *Çetin Erol*

Düşük akımlı aort darlığında dobutamin senaryolarının değerlendirilmesi - *Begüm Uygur*

Protez kapakta paravalvüler aort yetmezliği - *Alev Kılıçgedik*

Pannus, trombüs, mismatch ayrımı - *Gamze Babür Güler*

TAVI trombozu, endokarditi - *Özlem Arıcan Özlük*

09:45-10:15 **Uydu Sempozyum**

neutec

Türkiye'nin DAPT'nı Açıklıyoruz

Oturum Başkanı: *Oktay Ergene*

Konuşmacı: *Mehdi Zoghi, Ahmet Öz*

10:15-10:45 Kahve Arası

10:45-11:45 **Kalp Yetersizliğinde Komorbiditelerin Yönetimi**

Oturum Başkanları: *Hakan Altay, Kaan Okyay*

Panelistler: *Emrah Erdoğan, Burcu Yağmur, Ayşe Çolak*

Atriyal fibrilasyon - *Selvi Öztaş*

Kardiyorenal sendrom ve diüretik direnci - *Erdal Gürsul*

Obezite - *Berkay Ekici*

11:45-12:15 **Uydu Sempozyum**

Pfizer

Atriyal Fibrilasyonda AF'nin A'sı

Konuşmacı: *Tolga Onuk*

12:15-13:00 **Kardiyak MR Değerlendirmesi**

Oturum Başkanları: *Öykü Gülmez, Rezzan Deniz Acar*

MR: Olgularla Kardiyomiyopati Değerlendirmesi - *Ahmet Barutçu*

Teknik değerlendirme?

Kime ve ne zaman düşünmeliyim?

Sonuçları nasıl yorumlayalım?

13:00-14:00 Öğle Arası

14:00-14:45 **Salon Konuşsun**

Moderatörler: *Taylan Akgün, Fethi Kılıçarslan*

45 yaşında erkek hasta ilk kez olan senkop atağı ile acil servise başvuruyor. Çekilen EKG : Sinus ritmi hr:75 ventriküler erken vuru (+) FM: Mitral odakta 2/6 sistolik üfürüm midsistolik klik mevcut

Olgu Sunumu Konuşmacısı: *Eyüp Özkan*

14:45-15:15 **Uydu Sempozyum**

FARMANOVA

Yeni Normal, Yine ARNI

Oturum Başkanı: *Hakan Altay*

Konuşmacı: *Veysel Oktay*

15:15-15:45 **Galenos Yayınevi Akademi Arenası**

galenos yayınevi

Yer: *Akademi ARENA, Stand Alanı*

15:45-16:15 **Tarafınızı Seçin!**

Kronik koroner sendrom, LVEF>%50 ve çok damar hastalığının tedavisinde önceliğim…

Oturum Başkanları: *Osman Akın Serdar, Ahmet Arif Yalçın, İbrahim Halil Tanboğa*

Panelistler: *Özkan Karaca, Hasan Abdelrahman, Aykun Hakgör, Beytullah Çakal, Fuat Caner*

Girişimsel Tedavi - *Ersan Oflar*

İlaç Tedavisi - *Taner Şen*

16:15-17:00 **PAH'ın Tanı ve Tedavisinde Güncel Konular**

Oturum Başkanları: *Serdar Küçükoğlu, Tankut Akay*

Panelistler: *Emin Erdem Kaya, Bekir Calapkorur, Evliya Akdeniz, Tarık Kıvrak, Kadriye Memiç Sancar*

ESC 2022 PAH kılavuz - *Çağlar Emre Çağlıyan*

Güncel erişkin doğumsal kalp hastalıkları kılavuzu - *Ümit Yaşar Sinan*

KTEPH tedavisinde tedavi seçimi - *Hakkı Şimşek*

- Endarterektomi yaparım
- BPA yaparım
- RİOCİGUAT ile takip ederim

19 Eylül 2022, Pazartesi

Kurs Salonu

08:30-09:45 **Poliklinikte Pacemaker-ICD Kontrolleri ve Programlama Kursu**

Moderatör: *Barış Akdemir*

Konuşmacı: *Kudret Keskin*

Dr. Ekrem Karakaya Salonu

08:30-09:45 **Sağ Kalp Kateterizasyon Kursu**

Moderatörler: *Mehmet Akbulut*, *Hilal Erken Pamukçu*

Konuşmacı: *Bahri Akdeniz*

Endikasyonlar

Ekipman, hasta hazırlığı

Kateter tipleri, aletlerin kalibrasyonu

Teknik uygulama ve kateter yerleştirme

Hemodinamik basınçların ve ölçümlerin yorumlanması

Komplikasyonların yönetimi

09:45-10:15 **Uydu Sempozyum**

ADEKA

Hipervolemi Tedavisinde Torasemid ile Fark Yaratın!

Oturum Başkanı: *Mehdi Zoghi*

Konuşmacı: *Berkay Ekici*

10:15-11:00 Kahve Arası

11.00-11.45 **Acil Serviste Multidisipliner Yaklaşımlar ve Güncel Konular**

Oturum Başkanları: *Önder Öztürk*, *Nizamettin Toprak*

Panelistler: *Elnur Alizade, Hülya Dip*

Öğrenim Hedefi: Kardiyak sorunların optimal yönetimi, uyum içinde yürütülen multidisipliner bir yaklaşım ile mümkün olur. Pandemi ile geçen iki yılda hayatımız hiç olmadığı kadar değişti. Yaşamı tehdit eden antitelerin pandemi döneminde tanınması ve yönetiminde klinisyen hem kendini korumalı hem de zamanında doğru aksiyonları almalıdır. Bu oturumda zorlu dönemde kardiyovaskuler, pulmoner ve serebrovaskuler sorunların acil koşullarda yönetimi irdelenecektir.

HEART skoru ve güncel angina pektoris rehberinde 10 pratik mesaj - *Özgür Karcıoğlu*

Yeni bir tanım: Akut serebrovasküler sendrom ve multidisipliner yönetimi - *Gülin Morkavuk*

11:45-12:15 **Uydu Sempozyum**

AstraZeneca

Kalp Yetersizliğinde Dapagliflozin'in Etkililiği

Konuşmacılar: *Oktay Ergene, Berkay Ekici*

12:15-13:00 **Hangisini Nasıl Kapatalım?**

Oturum Başkanları: *Oktay Ergene, Faruk Aktürk*

PFO kapatma endikasyonları ve yöntemi - *Ertuğrul Okuyan*

LAA kapatma endikasyonları ve yöntemi - *Başar Candemir*

Sol atriyal anevrizmalı veya çoklu ASD'nin kapatılma endikasyonları ve yönetimi - *Faruk Ertaş*

13:00-14:00 Öğle Arası

14:00-14:45 **Salon Konuşsun**

Moderatörler: *Mustafa Yenerçağ, Onur Taşar*

Konuşmacı: *Yasemin Doğan*

Birçok kez koroner anjiyografi hikayesi olan, kritik olmayan darlıklarıyla anginası geçmeyen hastanın tedavi yönetimi

14:45-15:15 **Uydu Sempozyum**

MicroPort®

5 Yıllık Çalışma Sonuçları İle Firehawk

Oturum Başkanı: *Oktay Ergene*

Konuşmacı: *Can Yücel Karabay*

15:15-15:45 Kahve Arası

15:45-16:15 **Kalp Yetmezliğinde Yeni İlaçlar ve Yardımcı Cihazların Takibi**

Oturum Başkanı: *Özlem Yıldırımtürk*

Panelistler: *Süleyman Çağan Efe, Emine Altuntaş, Mehmet Sait Altıntaş*

SGLT-2 inhibitörleri - *Veysel Özgür Barış*

Omecamtiv Mecarbil - *Mehmet Fatih Yılmaz*

LVAD tedavisi altındaki hastanın takibi - *Oğuz Karaca*

16:15-17:00 **Spor Kardiyolojisi**

Oturum Başkanları: *İpek Türkoğlu, Hasan Güngör*

Sporculara Özgü EKG ve Ekokardiyografi Bulguları - *Gamze Yeter Arslan*

Spor, Aritmi ve Ani ölüm Üçgeni - *Sefa Gül*

Kardiyovasküler Hastalığı Olanlarda Egzersiz Önerileri - *Hatice İrem Üzümcü*

20 Eylül 2022, Salı

Dr. Ekrem Karakaya Salonu

09:00-10:00 **ESC ve Kardiyovasküler Akademi Derneği Ulusal Çalışma Sonuçları**

Oturum Başkanları: *Mehdi Zoghi, Aycan Fahri Erkan*

Panelistler: *Mehmet Kış, Gönül Zeren, Serkan Asil, Ahmet Kaya*

Prevention-TR - *Özlem Arıcan Özlük*

DAPT-TR - *Ahmet Öz*

HFAS-TR - *Dilay Karabulut*

ESC-2022'de öne çıkanlar - *Tuba Ekin*

10:00-10:45 **Kalbiniz ve Ötesi**

Oturum Başkanı: *Nihan Turhan Çağlar*

Obezite ilaçları ve kalp - *Ferit Böyük*

COVİD aşıları ve kalp - *Murat Özmen*

Dijital dünya ve kalp - *Göksel Çinier*

10:45-11:15 **Akılcı İlaç Kullanımı**

Murat Alan

11:15-11:30 **Kapanış**

INTERNATIONAL ACADEMY OF YOUNG CARDIOLOGISTS

2022

SCIENTIFIC PROGRAM

17 September 2022, Saturday

09:00-10:00 **Advances and Perspectives in Heart Failure**
Chairpersons: *Mehdi Zoghi (TR), Babak Sharif-kashani (IR)*
New Guideline-directed Medical Therapy for Patients with HFrEF - *Gökhan Altunbaş (TR)*
SGLT II inhibitors - A breakthrough in Trajectory of heart failure treatment - *Fady Gerges (AE)*
Cardiotoxicity and Heart Failure: Early Detection, Strategies to Prevent Prevention and Management - *Sena Sert (TR)*

10:00-10:15 Coffee Break

10:15-11:15 **Choose Your Side: Optimal Treatment for Multivessel CAD**
Chairperson: *İsmail Polat Canpolat (TR)*
CABG - *Neda Shafiabadi (USA)*
PCI - *Mohammad Sarraf (USA)*

11:15-11:30 Coffee Break

11:30-12:30 **Management of Cardiac Arrhythmias**
Chairperson: *Mesut Demir (TR)*
Digital Health and Asymptomatic Atrial Fibrillation Screening - *Ufuk İyigün (TR)*
Ventricular Tachycardia Storms, Emergencies in Patients with ICDs - *Michael Spartalis (USA)*
Conduction System Pacing: Tips, Tricks and Tools for Implantation - *Zahra Emkanjoo (IR)*

12:30-13:30 Lunch Break

13:30-14:30 **Choose Your Side:**
Treatment Strategy in Patient with Chronic Coronary Syndrome and Moderate or Severe Ischemia
Chairperson: *Uğur Arslan (TR)*
Medical therapy + Invasive strategy - *Kiril Berezhnoi (IL)*
Medical therapy alone - *Shadi Ahmed (UAE)*

14:30-14:45 Coffee Break

14:45-15:45 **Case Based Session**
Chairperson: *Ömer Kozan (TR)*
Chronic Total Occlusion Recanalization - *Arash Hashemiv*
Complication(s) of Transcatheter Aortic Valve Implantation - *Olcay Aksoy (USA)*
MINOCA - *Afsaneh Mohamadi (IR)*

14:45-15:00 Coffee Break

16:00-17:00 **Interventional Session: How Should I...**
Chairpersons: *Oktay Ergene (TR), Rafael Moguel Ancheita (MX)*
Perform Successful Bifurcation Stenting? - *Ahmet Karagoz (TR)*
Treat a Patient with LM Disease in 2022? - *Baktash Bayani (IR)*
Manage No-Reflow Phenomenon? - *Ashkan Hashemi (USA)*

17:00-17:10 Coffee Break

17:10-18:10 **Abstract Session-1: Risk factors, Co-morbidities**

Chairperson: *Babak Sharif-Kashani*

17:10-17:20 OA-1 The Effect of Hyperparathyroidism on Endothelial and Diastolic Functions in Young Women Diagnosed with Vitamin D Deficiency

Onur Akhan

17:20-17:30 OA-2 The Assessment of Linkage Between Triglyceride/High-Density Lipoprotein Ratio and Coronary Artery Ectasia

Sevgi Özcan, Esra Dönmez

17:30-17:40 OA-3 Covid-19 Deteriorates Neurocognitive Functions More in Patients with Atrial Fibrillation

Gözde Yontar, Osman Can Yontar

18:00-18:10 OA-58 Predictors of Mortality in Patients with Non-ST Segment Elevation Acute Coronary Syndromes: A Single Center Experience with a Long-Term Follow-up

Aylin Sungur

18:10-18:15 Coffee Break / E-Poster Presentation

18:15-19:25 **Abstract Session-2: Coronary Artery Disease, Prevention, Awareness**

Chairperson: *Berkay Ekici*

18:15-18:25 OA-6 Comparison of Outcomes Between Single Long Stent and Overlapping Stents in Long Coronary Artery Lesion: A Meta-Analysis of The Literature

Faysal Şaylık, Tufan Çınar, Murat Selçuk, Vedat Çiçek, Mert Ilker Hayıroğlu, Ahmet Lütfullah Orhan

18:25-18:35 OA-7 Secondary Prevention of Cardiovascular Diseases in Patients in Turkey: PREVENTION-TR study

Ozlem Arican Ozluk, Yasemin Klavuz, Muhammed Suleymanoglu, Orsan Deniz Uygur, Fahri Er, Sefa Gül, Cihan Altın, Ahmet Öz, Fatih Tamnik, Zeynep Yapan Emre, Mehdi Zoghi

18:45-18:55 OA-9 Use of The Triglyceride-Glucose Index (TyG) in Patient with Low-Intermediate Cardiovascular Risk; Novel Prognostic Index to Predict CAD Severity

Duygu İnan, Aslan Erdoğan

18:55-19:05 OA-10 Inflammatory Assessment Scores May Predict the No-Reflow Phenomenon in STEMI Patients

Mehmet Özbek

19:15-19:25 OA-12 Can No-Reflow Be Predicted by Creatinine/Albumin Ratio in STEMI?

Sedat Kalkan

18 September 2022, Sunday

09:00-10:00 **Preventive Cardiology 2022**

Chairperson: *Berkay Ekici (TR)*

The Impact of Risk Factors and Risk Classifcation for Assessing CV Risk - *Mehriban Isgender (AZ)*

Defning Lipid Goals and Strategies to Prevent CVD - *Stefania Angela Di Fusco (IT)*

The Role of Physical Activity and Exercise - *Gülay Gök (TR)*

10:00-10:15 Coffee Break

10:15-11:15 **Latest Developments in Cardiovascular Imaging**

Chairperson: *Omaç Tüfekçioğlu (TR)*

When Is Cardiac MRI Needed in HF - *Yasmin Rustamova (AZ)*

How To Use Echocardiography in Choosing the Right Patient for Tricuspid Repair - *Moustafa Mohamed Mohamed Eldib (SA)*

Echocardiography in Hypertrophic Cardiomyopathies - *Nihan Turhan Çağlar (TR)*

11:15-11:30 Coffee Break

11:30-12:30 **Women in Cardiology**

Chairperson: *Nihan Turhan Çağlar (TR)*

Heart Failure and WOMEN - *Sara Moscatelli (UK)*

Angina, CAD and WOMEN - *Irina Kotlar (MK)*

Interventional Cardiologists - *Heli Tolpanen (SW)*

12:30-13:30 Lunch Break

13:30-14:30 **Hypertension 2022**

Chairperson: *Özlem Arıcan Özlük (TR)*

Nocturnal Hypertension and Taking Medications at Bedtime - *İlaha Aghaeva (AZ)*

Triple Single-Pill Combination: Advantages and Disadvantages - *Aleksandra Djokovic (XS)*

Update on Renal Denervation - *Selvi Öztaş (TR)*

14:30-14:45 Coffee Break

14:45-15:45 **Advance ECG Interpretation Course**

Chairperson: *Özgür Kırbaş (TR)*

Syed Haseeb Raza Naqv (PK)

Brugada syndrome - Lorenzo Costantini (IT)

15:45-16:00 Coffee Break

16:00-17:00 **Intravascular Understanding of Coronary Anatomy and Physiology**

Chairperson: *Hamza Duygu (TRNC)*

IVUS and OCT: Imaging Tools in The Cath Lab - *Maryam Mehrpooya (IR)*

FFR/IFR/QFR: From The Basic to Our Daily Practice - *Behrad Elahi (UAE)*

CT Angiography and CT-FFR: Indications and Clinical Implications - *Kianoosh Hoseini (IR)*

17:00-17:15 Coffee Break

17:15-18:05 **Abstract Session-3: Drugs, Risk factors, Drugs**

Chairperson: *Sinem Çakal*

17:15-17:25 OA-13 The Role of Hematological Parameters in Patients with Non-Dipper Hypertension and Prediabetes

Mehmet Ali Mendi

17:25-17:35 OA-14 Effects of Statins on Red Blood Cell Distribution Width (RDW) and Mean Platelet Volume (MPV) Parameters in Stable Coronary Artery Disease

Ayse Colak, Yesim Akın

17:35-17:45 OA-15 Evaluation of The Efficacy and Safety of Enalapril/Lercanidipine Combination Therapy in Hypertensive Patients in Turkish Population

Hakan Karpuz, Ömer Bedir, Ali Yaşar Kılınç, Gökhan Köker, Lale Dinç Asarcıklı, Hüseyin Semiz, Mehmet Özgeyik, Ibrahim Dönmez, Gokhan Faikoglu, Yurdaer Özcan

17:45-17:55 OA-16 Investigation of The Effect of Acetylsalicylic Acid Dose and Timing on The Results in Dual Antiplatelet Therapy After Peripheral Revascularization

Özgür Akkaya, Oğuz Karahan

17:55-18:05 OA-17 Anticoagulation with Unfractioned Heparin in Patients with Prosthetic Valve Thorombosis- A Single Center Study

Semih Kalkan, Macit Kalcık, Mustafa Ozan Gursoy, Ahmet Guner, Sabahattin Gunduz, Emrah Bayam, Mahmut Yesin, Mustafa Ferhat Keten, Mehmet Ozkan

18:05-18:15 Coffee Break / E-Poster Presentation

18:15-19:15 **Abstract Session-4: Predictors-Prognosis**

Chairperson: *Mehriban Isgender*

18:15-18:25 OA-18 The Predictive Role of Prognostic Nutritional Index and Systemic Immune Inflammation Index to The Aortic Valve Calcification in The Elderly Population with Chronic Renal Failure

Mehmet Kış

18:25-18:35 OA-20 Pulmonary Artery Diameter as A Predicts Overall Mortality on Chest CT In-Hospital Patients With COVID-19 Pneumonia

Nart Zafer Baytuğan, Aziz Inan Çelik, Tahir Bezgin, Hasan Çağlayan Kandemir

18:35-18:45 OA-21 Prognostic Importance of Bundle Branch Block at initial ECG on No-reflow in Myocardial Infarction Patients with Total Vessel Occlusion

Timor Omar, Muammer Karakayalı, Inanç Artaç

18:45-18:55 OA-22 The Predictors of Embolic Events in Left-sided Infective Endocarditis

Ahmet Güner, Ahmet Yaşar Çizgici

18:55-19:05 OA-23 Prognostic Significance of Addition of Electrocardiographic Findings to the MAGGIC Heart Failure Risk Score

Ömer Doğan, Barış İkitimur, Hasan Ali Barman

19:05-19:15 OA-24 Predictors of Mortality in Patients Undergoing Coronary Stent Procedure: A single-center experience

Ferit Böyük, Nurbanu Bursalı, Kenan Iltimür

19 September 2022, Monday

09:00-09:50 **Abstract Session-5: Heart Failure**

Chairperson: *Mehdi Zoghi*

09:00-09:10 OA-25 The Relationship Between Magnesium/Phosphate Ratio and Premature Ventricular Complex Frequency in Heart Failure Patients with Preserved Ejection Fraction

Tuncay Güzel

09:10-09:20 OA-26 Characteristics, Clinical Features and Outcomes of Syrian Refugees with Acute Heart Failure

Mehmet Rasih Sonsöz

09:20-09:30 OA-27 The Correlation between Left Atrial phasic function and N-Terminal Pro-BNP levels in Heart Failure with a Preserved Ejection Fraction

Selda Murat, Bektas Murat, Halit Emre Yalvac, Muhammet Dural, Yüksel Çavuşoğlu

09:30-09:40 OA-28 The Relationship between the Presence of Cardiohepatic Syndrome and Mortality in Patients with Low Ejection Fraction Heart Failure

Mehmet Fatih Yılmaz

09:40-09:50 OA-29 TAPSE/PASP Ratio May Predict Poor Prognosis Following Atrial Flow Regulator Implantation in Patients with Heart Failure

Nijad Bakhshaliyev

09:50-10:15 Coffee Break / E-Poster Presentation

10:15-11:05 **Abstract Session-6: Imaging-1**

Chairperson: *Nihan Çağlar*

10:15-10:25 OA-30 Convinient Novel Method for Diagnosing Diastolic Dysfunction: Electrocardiographic Diastolic Index

Murat Oğuz Özilhan, Özge Çakmak Karaaslan

10:25-10:35 OA-31 The Relationship Between TAPSE/PASP Ratio and Prognosis İn Patients with Pulmonary Arterial Hypertension

Raif Kiliç, Tuncay Güzel

10:35-10:45 OA-32 Volume and Thickness Comparison of Periaortic Adipose Tissue in Ascending and Descending Aorta

Ertan Akbay, Sinan Akinci, Ibrahim Uysal, Umit Bulut

10:45-10:55 OA-33 Electrocardiographic Features Of COVID-19 Patients Hospitalized in Intensive Care Unit

Ayşe Ayyıldız, Özge Turgay Yıldırım

10:55-11:05 OA-34 Comparison of Plasma Proadrenomedullin Levels in Association with Echocardiography Parameters in Patients Before and After Percutaneous Mitral Balloon Valvuloplasty

İlyas Çetin, Ali Kemal Kalkan, Ali Rıza Demir, Ersin İbişoğlu

11:05-11:30 Coffee Break / E-Poster Presentation

11:30-12:20 **Abstract Session-7: Arrhythmias-1**

Chairperson: *Lorenzo Costantini*

11:30-11:40 OA-35 Relationship Between Metabolic Syndrome and Cardio-Electrophysiological Balance

Umut Uyan

11:40-11:50 OA-36 The Impact of Anabolic-Androgenic Drugs on The Cardiac Conduction System of Bodybuilders

Serhat Günlü

11:50-12:00 OA-37 Oral Anticoagulant Treatment and Clinical Characteristics of Atrial Fibrillation Patients; Tertiary Center Experience

Cennet Yıldız, Dilay Karabulut, Fatma Nihan Turhan Çağlar

12:00-12:10 OA-38 Trend of Sex Differences and Clinical Outcomes of Patients with Atrial Fibrillation in Turkey; A Multicenter Experience

Muhammed Demir

12:10-12:20 OA-39 The Importance of Electrophysiological Balance Index in Patients with Type-2 Diabetes Mellitus

Ferhat Işık, Erkan Baysal, Abdurrahman Akyüz

12:20-13:30 Lunch Break

13:30-14:20 **Abstract Session-8: Case Reports-1**

Chairperson: *Beytullah Cakal*

13:30-13:40 OA-40 The big dilemma in the catheter room: Management of left main coronary thrombus; Medical treatment? Interventional treatment?

Ahmet Çağdaş Yumurtaş, Ozan Tezen, Levent Pay, Fatma Can, Mustafa Azmi Sungur, Ilhan Ilker Avcı, Gönül Zeren, Mehmet Fatih Yılmaz, Ufuk Gürkan, Can Yücel Karabay

13:40-13:50 OA-41 Pulmonary Emboly Mimicking Anterior Myocardial Infarction

Semih Aktürk, Gökhun Akkan, Sadık Volkan Emren, Hüseyin Sefa Ince

13:50-14:00 OA-42 Percutaneous Treatment of Severe Acute Mitral Regurgitation Early After Myocardial Infarction

Aykun Hakgör, Ibrahim Oguz Karaca, Arzu Yazar, Bilal Boztosun, Ismail Ates

14:00-14:10 OA-43 Isolated right ventricular thrombus with the severe chronic obstructive pulmonary disease

Bilge Nazar Ateş, Kerim Esenboğa, Nil Özyüncü, Eralp Tutar

14:10-14:20 OA-44 Coil Embolization of Right Coronary Artery Fistula Which is Draining to Left Ventricle

Muhammet Mücahit Tiryaki, Sadık Volkan Emren, Gökhun Akkan, Ömer Pekerşen, Semih Aktürk, Hüseyin Sefa Ince, Mustafa Ozan Gürsoy, Cem Nazlı

14:20-14:30 Coffee Break / E-Poster Presentation

14:30-15:20 **Abstract Session-9: Case Reports-2**

Chairperson: *Caglar Emre Cagliyan*

14:30-14:40 OA-45 Revascularizing Chronic Total Occlusion of Subclavian Artery Via Both Femoral and Brachial Pathway

Sinem Cakal, Halil Ibrahim Biter, Aydın Rodi Tosu, Mehmet Mustafa Can

14:40-14:50 OA-46 Heavy Aortic Valve Calcification in A Young Adult

Mutlu Cagan Sumerkan, Gunes Melike Dogan, Ozgur Selim Ser, Serhat Sigirci, Omer Alyan, Murat Kebaş

14:50-15:00 OA-47 Anomalous Biventricular Papillary Muscle Hypertrophy Was Incidentally Found in A Patient with An Atrial Septal Defect

Mutlu Cagan Sumerkan, Hakan Kilci, Serhat Sigirci, Murat Kebaş

15:00-15:10 OA-48 Acute Cerebral Embolism Associated with Left Ventricular Thrombus in a Woman with Peripartum Cardiomyopathy

Orhan Karayiğit, İsmail Ağı, Mehmet Tunç, Serkan Duyuler

15:10-15:20 OA-49 Multiple Complications During TAVI: Coronary Occlusion, Balloon Fracture, Femoral Artery Occlusion

Beytullah Çakal, Sinem Çakal, Yeliz Guler, Umeyir Savur, Oğuz Karaca, Bilal Boztosun

15:20-15:30 Coffee Break / E-Poster Presentation

15:30-16:40 **Abstract Session-10: Arrhythmias-2, Imaging-2**

Chairperson: *Tarık Kıvrak*

15:30-15:40 OA-50 The Impact of Figure-of-Eight Suture for Venous Hemostasis in Fully Anticoagulated Patients after Cryoballoon Atrial Fibrillation Ablation: A Single Center Experience

Fatih Erkam Olgun, Furkan Çeleğen, Fethi Kılıçaslan

15:40-15:50 OA-51 Evaluation of Index of Cardiac Electrophysiological Balance in Patients with Chronic Obstructive Pulmonary Disease

Önder Bilge, Abdurrahman Akyüz

15:50-16:00 OA-52 Typical Electrocardiographic and Clinical Features of Propafenone Toxicity Without Structural Heart Disease with Standard Dose

Muhammed Furkan Çeleğen, Beytullah Çakal, Aykun Hakgör, Melike Zeynep Kenger

16:10-16:20 OA-54 The Effect Of COVID-19 on the Incidence of Coronary Artery Disease: Evaluation with SPECT-MPI

Erkan Demirci, Bekir Çalapkorur, Seyhan Karaçavuş

16:20-16:30 OA-55 Are Left Ventricular Regional Wall Motion Abnormalities on Transthoracic Echocardiography a predictor to perform Coronary Angiography in patients with new onset heart failure?

Meltem Tekin, Sinan Aydoğdu

16:40-16:45 Coffee Break / E-Poster Presentation

16:45-17:25 **Abstract Session-11: Arrhythmias-3**

Chairperson: *Ozgur Kirbas*

16:55-17:05 OA-59 Triglyceride-Glucose Index Predicts Cardiogenic Shock at Admission in Non-Diabetic Patients with ST-Segment Elevation Myocardial Infarction

Mustafa Azmi Sungur

17:05-17:15 OA-60 Can Mean Platelet Volume to Plateletcrit Ratio (MPV/PCT) be Predıctıve for Coronary Stent Thrombosis?

Yasin Yüksel, Hasan Ali Sinoplu, Fatma Nihan Turhan Çağlar

17:15-17:25 OA-61 The Hemoglobin, Albumin, Lymphocyte and Platelet (HALP) Score: A Potential Biomarker in Acute Coronary Syndrome

Özge Turgay Yıldırım, Göknur Yıldız

17:25-17:45 Coffee Break / E-Poster Presentation

17:45-18:55 **Abstract Session-12: Case Reports-3**

Chairperson: *Selvi Öztaş (TR)*

17:45-17:55 OA-62 Healing of Spontaneous Coronary Artery Dissection with Glycoprotein IIB-IIIA Therapy in A Woman Undergoing Hormone Replacement Therapy

Ersan Oflar, Cennet Yildiz, Atakan Arpaç, Ibrahim Faruk Aktürk

17:55-18:05 OA-63 Three in One: Dehiscence, Abscess, And Endocarditis

Semanur Vural, Ahmet Çağdaş Yumurtaş, Levent Pay, Ozan Tezen, Nurşen Keleş

18:35-18:45 OA-67 Intravascular ultrasound guided successful treatment of intramural hematoma with left main coronary artery luminal compression

Özgür Selim Ser, Kadriye Kılıçkesmez

18:45-18:55 OA-68 An unusual cardiac-toxicity of 5-fluorouracil: MINOCA

Atakan Dursun, Başak Çatalbaş, Melike Zeynep Kenger, Aykun Hakgör, Bilal Boztosun

20 September 2022, Tuesday

09:00-10:00 **Abstract Session-13: Case Reports-4**

Chairperson: *Gulay Gok*

09:00-09:10 OA-69 Interesting Response of Myocardial Bridge to Beta-blocker Therapy

Abdulrahman Naser, Didar Elif Akgün, Khagani İsgandarov, Müslüm Şahin

09:10-00:20 OA-70 Left ventricular Assist Device Implantation Concomitant with Cardiac Tumoral Resection

Arzu Yazar, Ibrahim Oguz Karaca

09:20-09:30 OA-71 Primary Percutaneous Intervention of Left Main Total Occlusion in a Cardiogenic Shock Patient

Hakan Kilci, Murat Kelbaş, Güneş Melike Doğan

09:30-09:40 OA-72 Right Ventricular Injury and Pericardial Effusion Due to Pacemaker İmplantation

Sefa Erdi Ömür, Çağrı Zorlu

09:50-10:00 OA-74 Use of Multilayer Stent and Fenestrated Endograft in a Single Session to Treat Long-Segment Aortic Aneurysm

Abdulla Arslan, Öykü Gülmez Özkaya

10:00-10:15 Coffee Break / E-Poster Presentation

10:15-10:55 **Abstract Session-14: Invasive cardiology**

Chairperson: *Arash Hashemi*

10:15-10:25 OA-75 Transcatheter Aortic Valve Implantation: A Tertiary Center Experience

Fuat Fatullayev, Ersan Oflar, Cennet Yıldız, Ibrahim Faruk Aktürk

10:25-10:35 OA-76 Outcomes of Patients who had Coronary Angiography and Percutaneous Coronary Procedure via the Distal Radial Artery: A Single Center Experience

Adem Aktan

10:35-10:45 OA-77 Successful Percutaneuos Repair of Subclavian Artery-Ven Fistula as a Result of Gunshot Injury in the Late Period

Özkan Karaca, Veysel Özgür Barış, Sedat Sakallı, Veli Eşref Karasu, Yusuf Hoşoğlu

10:45-10:55 OA-78 Long-term Cardiovascular Mortality after Endovascular Treatment with stenting in Patients with Iliac Artery Disease

Özkan Karaca, Fatih Poyraz, Veysel Özgür Barış, Sedat Sakallı, Emin Erdem Kaya, Elif Ilkay Yüce Ersoy, Yusuf Hoşoğlu, Serdar Türkmen

10:55-11:15 Coffee Break / E-Poster Presentation

11:15-12:15 Abstract Session-15: Miscellaneous

Chairperson: *Afsaneh Mohammadi*

11:15-11:25 OA-79 Long-Term Outcomes and Predictors in A Cohort of Patients with Isolated Moderate to Severe Aortic Valve Disease

Pelin Karaca Özer, Zeynep Gizem Demirtakan

11:25-11:35 OA-80 The Prevalence of Consumption of Alternative Herbal Therapies and Complementary Nutrients in Addition to Medical Treatment in Coronary Artery Disease Patients Who Applied to A Cardiology Outpatient Clinic

Veysel Tosun

11:45-11:55 OA-82 Index of Arterial Stiffness, Epicardial Fat Tissue Thickness, Bioelectrical Impedance and Disease Activity in Rheumatoid Arthritis, Ankylosing Spondylitis, Non-Radiographic Axial Spondylartritis, And Healthy Adults

Sefa Gül, Asım Oktay Ergene

11:55-12:05 OA-83 Predictors of Inappropriate Shocks in A Patient Cohort Who Presented to The Emergency Department with ICD Shock Therapy

Abdullah Kadir Dolu, Filiz Akyıldız Akçay, Selcen Yakar Tülüce, Uğur Kocabaş

12:05-12:15 OA-84 Our Clinical Experience in Anesthesia Management For Interventional Cardiology, Single Center Study

Şahin Yilmaz

INTERNATIONAL ACADEMY OF YOUNG CARDIOLOGISTS

2022

ORAL PRESENTATIONS

OA-01 THE EFFECT OF HYPERPARATHYROIDISM ON ENDOTHELIAL AND DIASTOLIC FUNCTIONS IN YOUNG WOMEN DIAGNOSED WITH VITAMIN D DEFICIENCY

Onur Akhan

Cardiology, Bilecik Training and Research Hospital, Bilecik, Turkey

Introduction: Vitamin D deficiency (VDD) is a widespread situation, particularly in the cold seasons, and provokes diverse negative effects, including cardiac outcomes. The most accepted reason regarding the cardiac effects of VDD was the combination of VDD and hyperparathyroidism.

Aim: We aimed to investigate hyperparathyroidism's effect on endothelial and diastolic functions in young women before the menopausal stage with VDD free of other risk factors using transthoracic echocardiography and peripheral tissue Doppler imaging (tDi).

Methods: Our cross-sectional and observational study included a total of 70 women aged 18-50 and diagnosed with VDD who applied to our hospital from November to December 2020 time frame. The patients were categorized with reference to their parathyroid hormone (PTH) levels regarding reference range. (The PTH level of 29 patients was above the reference value.) In addition, the patients' demographic, basic echocardiographic, and carotid/brachial artery tDi features were examined.

Results: Patients' basal characteristic features and diastolic blood pressure (BP) were similar (all p values>0.05). Systolic BPs were found to be high in the hyperparathyroidism group, but no patient had hypertension (p=0.020, Mean systolic BP 124.31±8.05). Severe VDD prevalance was 78%. A wave time was prolonged, and there was the E/A ratio decrement also in the hyperparathyroidism group (p=0.043 and 0.031, respectively); carotid intima-media thickness (IMT) was found to be significantly higher also (p=0.032) than the group with an regular PTH level.

Conclusion: Our study showed that high PTH levels in pre-menopausal women diagnosed with VDD might negatively affect diastolic (A wave duration, E-A rate) and endothelial features (IMT) free of other probable risk factors. Our outcomes will add to the literature and will be prescient for future investigations.

Keywords: Hyperparathyroidism, vitamin D deficiency, diastolic functions, endothelial functions, echocardiography

Basal Characteristics, Laboratory, Echocardiographic and Tissue Doppler Parameters

	Normal PTH Level (n=41) (mean±SD)	Secondary Hyperparathyroidism (n=29) (mean±SD)	P
Age (year)	36.8±7.3	38.9±9.1	0.277
BMI (kg/m2)	26.5±3.1	27.1±3.1	0.509
Systolic BP (mmHg)	118±12	124±8	0.020
Diastolic BP (mmHg)	80±13	83±12	0.413
PTH (pg/dl)	58.4±5.4	94.9±25.3	<0.001
Vitamin D (ng/ml)	9.3±7.8	8.0±4.0	0.376
Creatinine (mg/dl)	0.73±0.05	0.76±0.6	0.146
Corrected Calcium (mg/dl)	9.2±0.3	9.3±0.2	0.705
Phosphate (mg/dl)	3.2±0.4	3.2±0.6	0.729
TSH (IU/L)	1.8±0.9	1.6±0.8	0.211
LVEF (Simpson Method - %)	69±7	71±7	0.436
HR (/min)	78±11	79±11	0.621
E (cm/s)	73±12	77±16	0.213
A (cm/s)	53±14	62±19	0.043
Deceleration Time (ms)	216±49	223±42	0.495
E/A	1.4±0.3	1.3±0.6	0.031
E/E'	3.7±0.9	4.2±1.1	0.097
Lat (mpi)	0.6±0.1	0.6±0.2	0.622
Sep (mpi)	0.7±0.1	0.6±0.1	0.221
RVSm (cm/s)	19±2.8	18±4.6	0.762
Carotid syst. diameter (cm)	0.56±0.03	0.57±0.06	0.549
Carotid diast. diameter (cm)	0.51±0.03	0.52±0.05	0.437
Carotid IMT (mm)	0.5±0.1	0.6±0.1	0.032
Basal Brachial diameter (cm)	0.28±0.03	0.29±0.04	0.537
Peak Brachial diameter (cm)	0.31±0.04	0.31±0.04	0.685
bFMD (%)	0.09±0.04	0.08±0.04	0.436

Basal Characteristics, Laboratory, Echocardiographic and Tissue Doppler Parameters

OA-02 THE ASSESSMENT OF LINKAGE BETWEEN TYRIGLICERIDE/HIGH-DENSITY LIPOPROTEIN RATIO AND CORONARY ARTERY ECTASIA

Sevgi Özcan, Esra Dönmez

Bağcılar Training and Research Hospital, İstanbul, TUrkey

Coronary artery ectasia(CAE)is defined as at least 1.5 times localized or diffuse dilatation of coronary artery segment relative to contiguous healthy segment.The incidence ranges between 0.22–5% according to coronary angiography(CAG) and autopsy series.Atherosclerosis,congenital, inflammatory and connective tissue diseases are important etiologic disorders.CAE may cause myocardial ischemia and acute coronary syndrome.Abnormal plasma lipid profile is considered as a risk factor for coronary artery disease(CAD). Elevated triglyceride(TG) level is an independent risk factor.Lower levels of high-density lipoprotein(HDL) were shown to be associated with increased risk of CAD.Tg/HDL ratio was found to be an independent risk factor for CAD and all-cause mortality.In this study,we aimed to investigate the relationship between Tg/HDL ratio and CAE presence and to identify whether Tg/HDL ratio is a useful index for defining patients under risk.

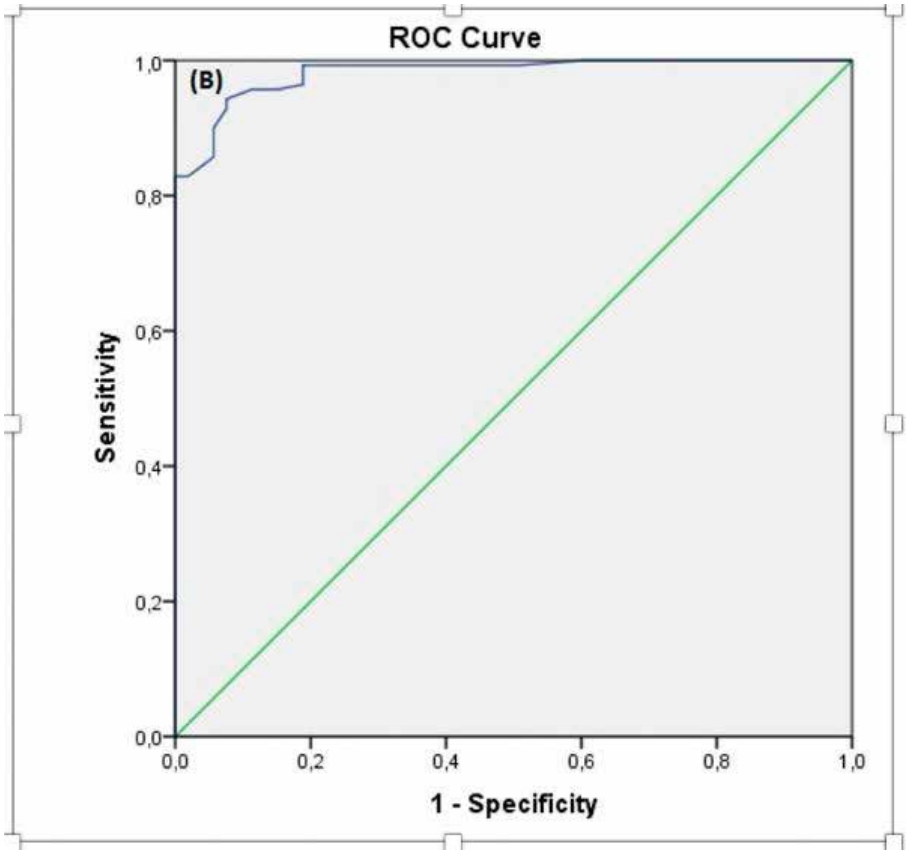
Methods: Patients without known CAD who underwent CAG due to documented evidence of ischemia were included in the study.CAG views were evaluated to define CAE; location, type and numbers of involved coronary artery were noted based on Markis classification.Tg/HDL ratio was calculated using fasting Tg and HDL levels that were obtained at least 12 hours prior to CAG.Patients with normal coronary angiogram formed the control group.Patients with type 1 or 2 diabetes mellitus,end-stage hepatic or renal failure, acute inflammatory disorder,infectious or collagen tissue diseases,malignancy,previous myocardial infarction,ischemic stroke, or peripheral artery disease and who had extreme Tg levels (>500mg/dL) or on antihyperlipidemic drugs and history of alcohol consumption in excess of 30 g/d were excluded.

Results: There were 140 patients in CAE and 53 in control group.Mean age(60.76±10.80vs.56.62±7.44;p=0.011), BMI [27.80(19-40)vs24.20 (18-36);p=0.001], rate of male gender(72.85vs32.07%;p<0.0001), hypertension(59.28vs43.39%;p=0.048),and smoking (52.14vs26.41%;p=0.001) were significantly higher in CAE. Serum total cholesterol [216.50(122-324)vs161(124-273);p<0.0001],low density lioporotein [121(62-229)vs105 (53-188);p=0.024], Tg/HDL ratio[5.10(1.80-7.50)vs1.90(0.70-4.20);p<0.0001] levels were significantly higher in CAE as compared to the control group. All demographical, clinical, and biochemical characteristics of the 2 groups are presented in detail in Table 1.Regression analysis showed that Tg/HDL ratio [p=0.007;OR:10.516(1.881-58.781)] was an independent risk factor associated with CAE.In ROC analyses; a cut-off value of 3.45 for Tg/HDL ratio was associated with 92.9% sensitivity and 92.6% specificity (AUC:0.982; %95 CI:0.967-0.996) in prediction of CAE(Fig1).

Conclusion: Tg/HDL-C ratio is an independent predictor of CAE and closely associated with CAE presence.It may be a useful,easily calculated index for estimating CAE presence and may give an opinion about therapeutic target by reflecting the atherogenic enviroment.

Keywords: Tg/HDL ratio, Coronary artery ectasia, triglyceride, high-density, atherogenic index

Figure 1



ROC analysis of the performance of triglyceride/high-density-lipoprotein ratio for coronary artery ectasia presence.

Table

Variable	Coronary ectasia group (n=140)	Normal coronary artery group (n=53)	p
Age (years)	60.76±10.80	56.62±7.44	**0.011**
Gender (male, %)	102 (72.85)	17 (32.07)	**<0.0001**
Hypertension,n (%)	83 (59.28)	23 (43.39)	**0.048**
Smoking,n (%)	73 (52.14)	14 (26.41)	**0.001**
Cerebrovascular accident,n (%)	4 (2.85)	1 (1.88)	0.580
Chronic obstructive pulmonary disease,n (%)	14 (10)	7 (13.20)	0.343
Chronic renal failure, n (%)	4 (2.85)	0 (0)	0.577
Histroy of Malignancy,n (%)	4 (2.85)	1 (1.88)	0.580
Laboratory Parameters			
Creatinine (mg/dl)	0.98±0.31	0.97±0.43	0.712
Glomerular filtration rate, ml/dk/1.73 m2	89.00±16.92	93.53±13.18	0.738
Glucose (mg/dl)	107.47±12.13	92.43±10.11	**<0.0001**
Albumine, g/dl	4.54±1.12	4.89±0.97	0.378
Total Cholesterol (mg/dl)	216.50 (122-324)	161 (124-273)	**<0.0001**
Low Density Lipoprotein (mg/dl)	121 (62-229)	105 (53-188)	**0.024**
High Density Lipoprotein, (mg/dl)	35 (23-89)	50 (23-71)	**<0.0001**
Triglyceride (mg/dl)	200 (111-388)	95 (50-235)	**<0.0001**
Triglyceride/HDL ratio	5.10 (1.80-7.50)	1.90 (0.70-4.20)	**<0.0001**
Hemoglobin (g/dl)	14.01±1.74	13.79±1.27	0.649
Platelet (10^3/l)	239.51±33.14	232.62±36.61	0.091
White blood count (10^3/l)	8.89 (4.06-13.11)	7.56 (4.54-13.80)	0.531
Neutrophile (10^3/ul)	6.84±0.78	7.11±0.81	0.528
Lymbocyte (10^3/ul)	4.44±0.27	4.21±0.35	0.542
BMI (kg/m^2)	27.80 (19-40)	24.20 (18-36)	**0.001**
C-reactive Protein (mg/dL)	3.93 (0.32-41.18)	3.16 (0.32-18)	0.075
Thyroid stimulating hormone, mIU / L	2.04 (0.003-18.12)	2.34 (0.018-4.12)	0.147

Table 1. Demographical, clinical, and biochemical characteristics of the 2 groups are presented in table 1.

Demographical, clinical, and biochemical characteristics of the 2 groups are presented in table 1.

OA-03 COVID-19 DETERIORATES NEUROCOGNITIVE FUNCTIONS MORE IN PATIENTS WITH ATRIAL FIBRILLATION

Gözde Yontar[1], Osman Can Yontar[2]

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[2]*Samsun Training and Research Hospital, Cardiology Clinic, Samsun, Turkey*

Objective: COVID-19 is a multi-organ disease and impact of this disease on brain and heart may sustain for a long term. Atrial fibrillation (AF) also affects brain that causes cognitive deficiency and premature dementia in long term. Neurocognitive negative effects of COVID-19 are studied, however mutual effects with AF on cognition remains unknown.

Method: 200 patients who were hospitalized for mild and/or moderate COVID-19 were enrolled during April 2020 - December 2021. Patients were grouped firstly into two: AF+ and AF-, then into four: AF+/HF+ had AF and heart failure (HF), AF+/HF- had only AF, AF-/HF+ had only HF, AF-/HF- group had none. Ejection fraction cut-off value was set to 40%. At hospital discharge and after 3 months, patients were expected to complete Stroop Test (ST) that is a universally accepted tool to assess executive brain functions. In this test, cards which contain color names written on them or some colorful shapes painted on them are given to patients (Fig 1). In some cards, color names are written in colorful letters which are different than written color name. In others, color names are written in black letters on white page. In different stages, patients are asked to loudly tell written color name, color of the written word, color of the painted shape as fast as they can. While patient is telling written color names or frame color names, physician keeps time. In the end physician gets scores for four stages (A, B, C, D). By this way, ST helps to evaluate frontal lobe functions. Exclusion criteria: patients with history of any cognitive disorder, Alzheimer's, psychotic disorders, delirium, cerebrovascular event, stroke, who were hospitalized in intensive care unit for severe COVID, who had acute coronary syndrome during hospitalization, who were illiterate, who were color blind, who had AF less than 1 year, whose age were <50 or >70 years, who had paroxysmal AF.

Results: Baseline sociodemographic characteristics and comorbidities (diabetes, hypertension, smoking) were similar between groups. However, all stages of ST results were significantly higher in AF+ group (Table 1). AF+/HF+ group had significantly worse results than others (Table 2). The MANCOVA test showed a statistically significant difference between the AF and HF status on the combined dependent variables of ST Score after controlling for age and education status, $F(12, 502) = 450.302$, $p < 0.001$, Wilks' $\Lambda = .001$, partial $\eta 2 = 0.886$. Multiple linear regression models were run to predict each ST group from AF and/or HF status of patients with controlling age and education status. AF and HF were statistically significant predictors of almost all ST Scores independently and together with AF seem to affect the ST Score deterioration more than HF. (Table 3, Fig 2A,2B).

Conclusion: COVID effects brain's executive functions more negatively in patients with AF than others and this effect persists for 3 months. If patients had both HF and AF, outcomes are worse.

Keywords: COVID, atrial fibrillation, cognition, executive function

Figures

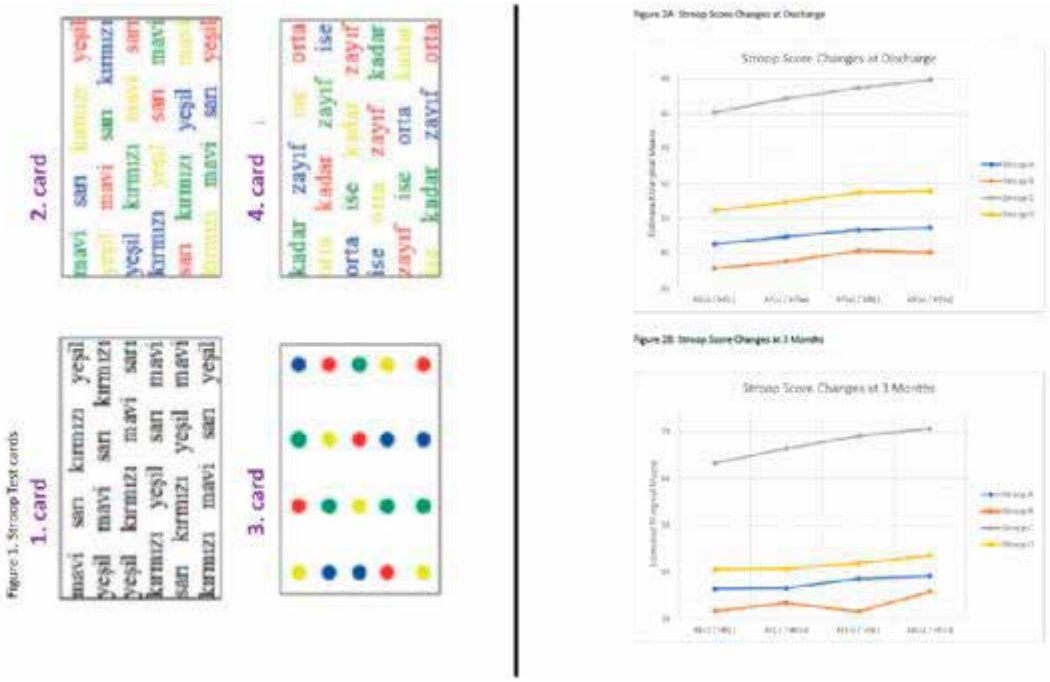

Figure 1. Stroop Test cards. In different stages, patients are asked to loudly tell written color name, color of the written word, color of the painted shape as fast as they can. While patient is telling written color names or frame color names, physician keeps time. In the end physician gets scores for four stages (A, B, C, D). Figure 2A and B.The Stroop Test scores at discharge and after 3 months. Multiple linear regression models showed that AF and HF were statistically significant predictors of almost all ST Scores independently and together with AF seem to affect the ST Score deterioration more than HF. AF: atrial fibrillation, HF: Heart failure

Tables

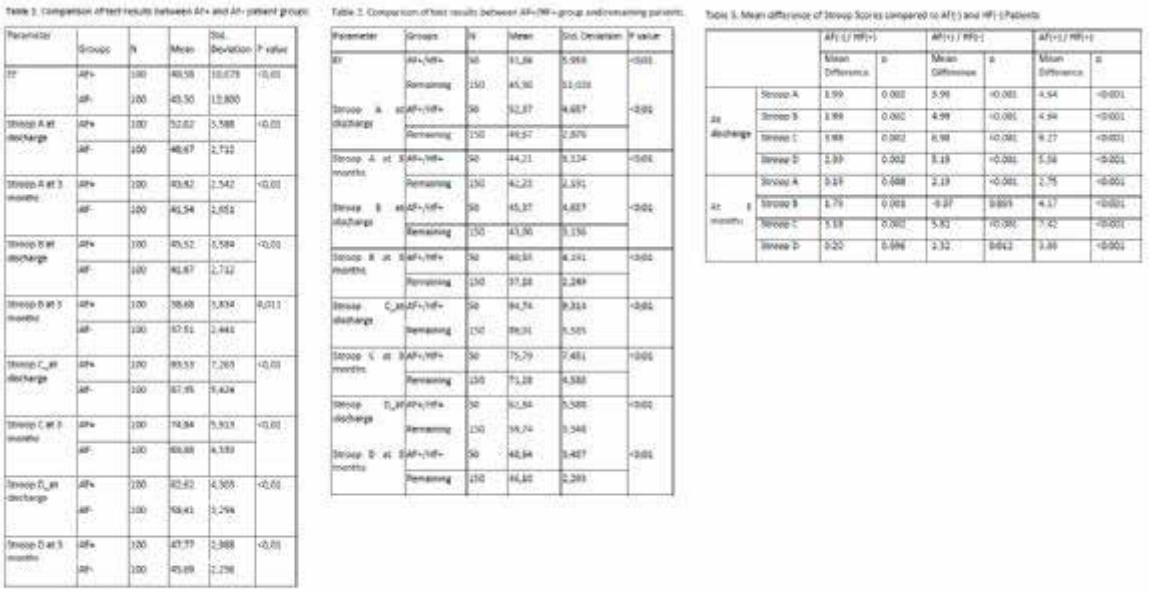

Table 1. Comparison of test results between AF+ and AF- patient groups. Table 2. Comparison of test results between AF+/HF+ group and remaining patients. Table 3. Mean difference of Stroop Scores compared to AF(-) and HF(-) P atients AF: Atrial fibrillation HF: Heart failure

OA-06 COMPARISON OF OUTCOMES BETWEEN SINGLE LONG STENT AND OVERLAPPING STENTS IN LONG CORONARY ARTERY LESION: A META-ANALYSIS OF THE LITERATURE

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Objective: There is no consensus for the treatment of diffuse coronary artery lesions with a single long stent (SLS) or with overlapping of two or more stents (OLS). In this review, we aimed to compare the outcomes between these two approaches by performing a meta-analysis based on the literature.

Method: We searched MEDLINE, Scopus, EMBASE, Google Scholar, and the Cochrane Library for eligible studies. In total, 12 studies (n= 6414) that included the outcomes in the follow-up period were included in this meta-analysis.

Results: Patients with OLS had higher risk of cardiac death and target lesion revascularization (TLR) than those with SLS (RR:1.51, confidence interval:1.03-2.21, p=0.03, I2 =0% and RR:1.64, confidence interval:1.02-2.65, p=0.04, I2 =38%, respectively). Fluoroscopy time was prolonged in OLS group compared to SLS group (SMD: 0.35, confidence interval:0.25-0.46, p<0.01, I2 =0%). Contrast volume usage was higher in the OLS group, but there was significant heterogeneity in pooled analysis (I2=95%). In subgroup analysis, there were no differences with respect to outcomes between the studies reported before and after the year 2015.

Conclusion: This was the first meta-analysis to indicate that cardiac death and TLR were higher and fluoroscopy time was longer in the OLS group than in the SLS group.

Keywords: single long stent, overlapping stent, diffuse coronary lesion, meta-analysis

Figure 1

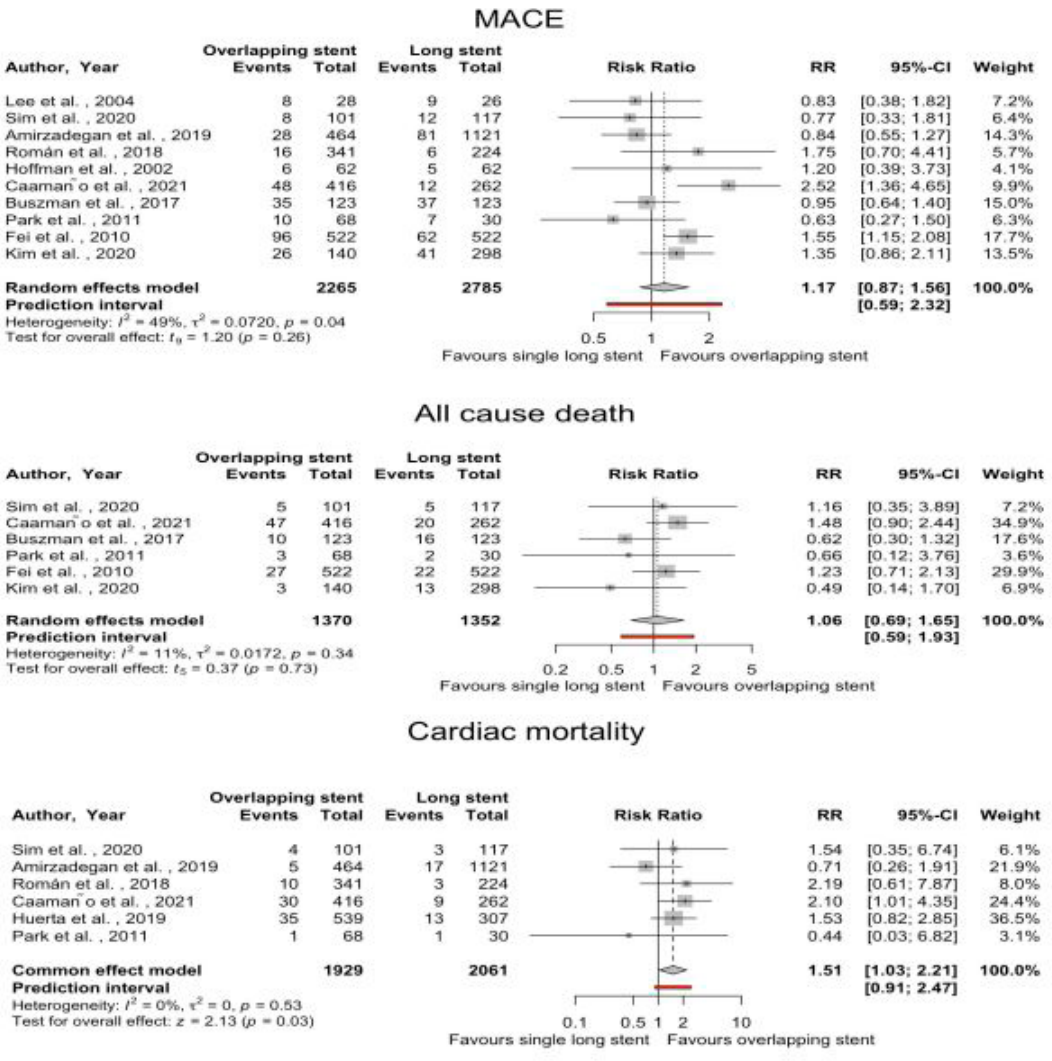

Figure 1: Pooled analyses of MACE, all-cause death, and cardiac death between OLS and SLS groups. Abbreviations; MACE: major cardiovascular adverse events, OLS: overlapping stent, SLS: single long stent.

Figure 2

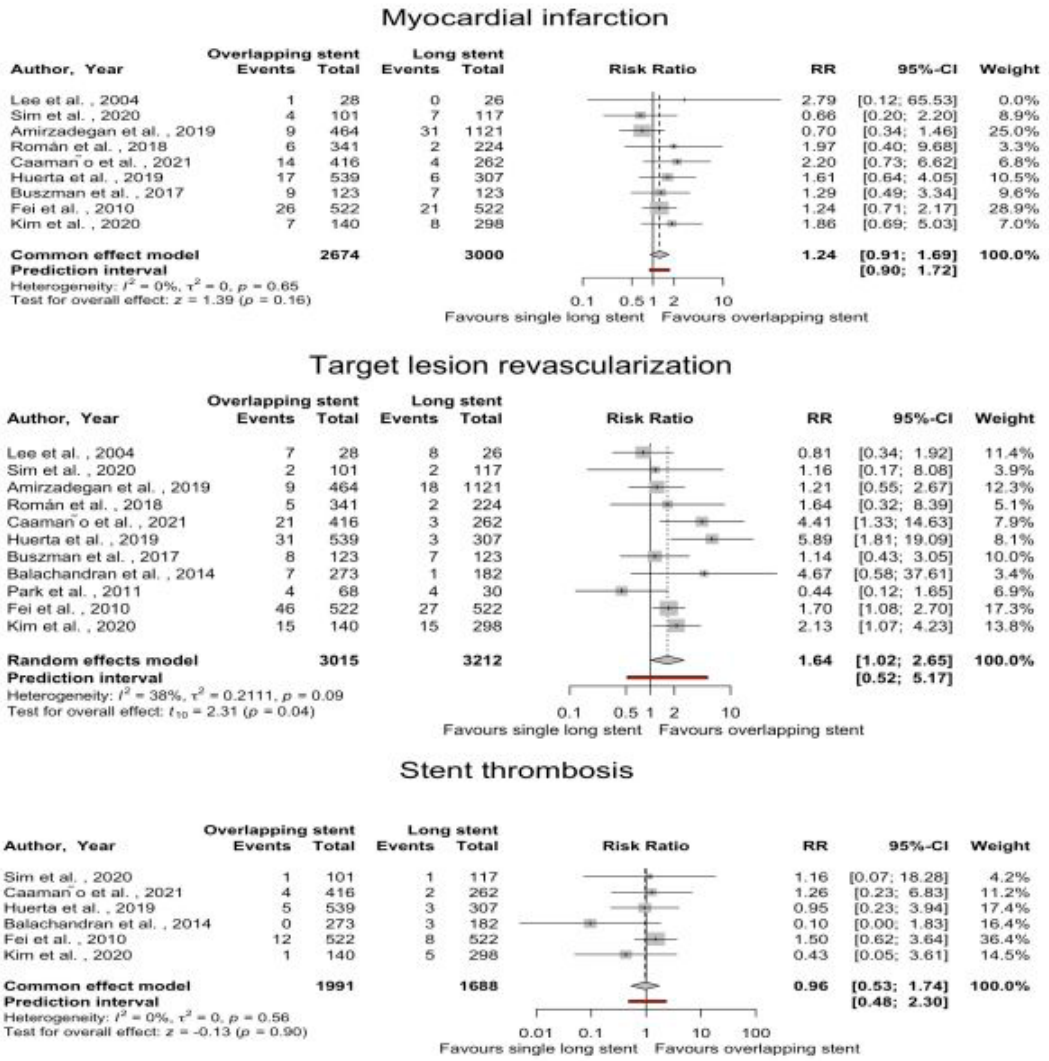

Figure 2: Pooled analyses of myocardial infarction, target vessel revascularization, and stent thrombosis between OLS and SLS groups. Abbreviations; see Figure 1.

OA-07 SECONDARY PREVENTION OF CARDIOVASCULAR DISEASES IN PATIENTS IN TURKEY: PREVENTION-TR STUDY

Ozlem Arican Ozluk[1], Yasemin Klavuz[2], Muhammed Suleymanoglu[3], Orsan Deniz Uygur[4], Fahri Er[5], Sefa Gül[6], Cihan Altın[7], Ahmet Öz[8], Fatih Tamnik[9], Zeynep Yapan Emre[10], Mehdi Zoghi[10]

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Aims: The aim of this study was to determine whether the Joint European Societies guidelines on secondary cardiovascular prevention are followed in everyday practice.

Design: A cross-sectional research 16 centres in different regions of Turkey.

Methods: Patients (<90 years) with documented coronary artery events who experienced the index event before the last 3 months were interviewed and examined.

Results: A total of 1633 patients (females 32.3 %) were interviewed. Twenty five per cent smoked and one quarter of these smokers are those who quit and start again. 29% of the patients were not having been offered Professional advise to quit. The mean body mass index of the patients was 28.3 ± 4 and only 27% of patients exercise regularly. The mean LDL level of the patients was 107.5 ± 44 mg/dL, on the other hand even though these patients need secondary prevention perspectives 89% of patients could not reach 55mg/ dL.

Conclusion: A large majority of coronary patients have unhealthy lifestyles in terms of smoking, weigth control and sedantary behavior which impacts cardıvascular situation. A majority of patients did not achive their low density lipoprotein cholesterol target. Compared with previous studies, our research shows that efforts for cardiovascular secondary prevention fall short of the target in Turkey.

Keywords: lifestyle, cardiovascular risk factors, secondary prevention, guidelines

OA-09 USE OF THE TRIGLYCERIDE-GLUCOSE INDEX (TYG) IN PATIENT WITH LOW-INTERMEDIATE CARDIOVASCULAR RISK; NOVEL PROGNOSTIC INDEX TO PREDICT CAD SEVERITY

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Background and Aim: The Coronary Artery Disease Reporting and Data System score (CAD-RADS) and coronary artery calcium (CAC) score determined by coronary CT angiography (CCTA) have incremental prognostic value for predicting future major adverse cardiovascular events in patients presenting to cardiology outpatient clinics with chest pain. This study was conducted to investigate the relationship between the severity of coronary stenosis, determined by CCTA CAD-RADS classification and coronary artery calcium score (CAC), and the triglyceride-glucose index (TyG) in low-intermediate risk patients with chest pain presenting to the cardiology outpatient clinic

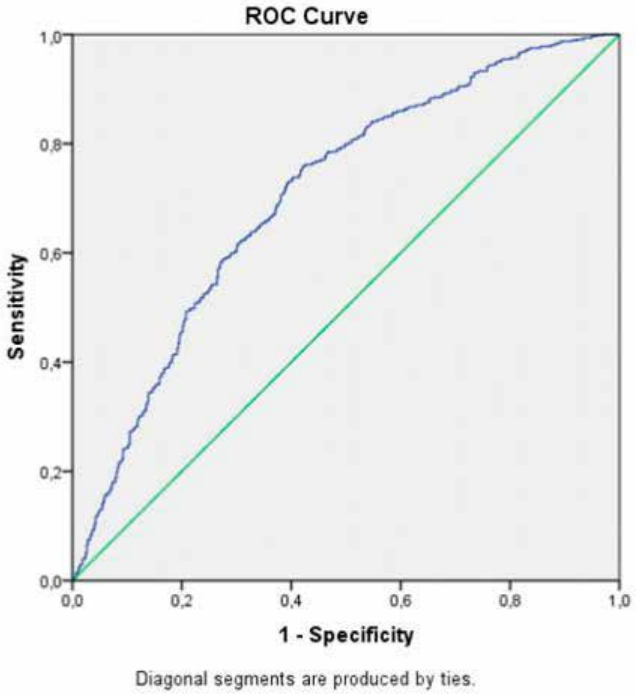
Meterials and methods: Between June 2020 and September 2021, 1138 patients who were admitted to our outpatient clinic with stable angina pectoris, were considered to be at low-intermediate risk for coronary artery disease and underwent CCTA (pretest probability of <85) were evaluated retrospectively. Baseline characteristics according to TyG (high group >=8,72 vs low group< 8,72) were compared. Multinomial logistic regression analysis was used when types of atherosclerotic plaque was taken as the primary outcome. Absence of atherosclerotic plaque was accepted as the reference group. Age, gender, DM, HT, smoking, Creatinine, LDL, and HDL were chosen as adjustment variables to quantify the association between TyG and primary outcomes. The relationship between primary outcomes and TyG was presented using the odds ratio and 95% CI.

Results: It was determined that patients with high Tyg index had a higher prevalence of stenotic lesion according to CAD-RADS and higher CAC score, in CCTA imaging. Furthermore, when coronary artery disease was detected, all plaque types (soft, mix or calcific) were more common in those with high TyG in comparison to patients without. For the relationship between primary outcomes and confirmed TyG index, by using age, gender, DM, HT, smoking, creatinine, LDL, and HDL as adjustment variables, 3 different multivariable models were made. The relationship between the TyG and the 5-category CAD-RADS, which indicates the severity of coronary stenosis, was analyzed by proportional odds logistic regression. A statistically significant positive correlation was found between the TyG index and the severity of coronary stenosis based on 5-category CAD-RADS (adjusted OR: 1.15, 95% (1.11 – 1.77), p=0.043) (Table- 1). In a ROC curve analysis, TyG > 0.69 predicted severity of CAD with a sensitivity of 0.70 and a specificity of 0.61 (AUC 0.705, %95 CI (0,67-0,736) P <0.001) (Figure- 1).

Conclusion: The TyG may be a promising inflammatory parameter in predicting the severity of coronary stenosis in low-intermediate risk patients with chest pain presenting to the cardiology outpatient clinic. Thus, unnecessary CCTA monitoring can be avoided.

Keywords: Coronary artery disease severity, Coronary CT angiography, Triglyceride glucose index

Figure-1



The ROC curves of TyG Index for severity of CAD. Abbreviations: ROC, receiver operating characteristic; TyG Index; Triglyceride and Glucose Index

Table-1 Relationship between group of TyG and primary outcomes

Primary outcomes	Odds ratio, 95% CI	p value
CAD-RADS (5 category)univariable	1.65 (1.46 – 2.34)	<0.0001
CAD-RADS (5 category)Age-sex adjusted	1.62 (1.22 – 2.18)	<0.0001
CAD-RADS (5 category)Full adjusted	1.15 (1.11 – 1.77)	0.043
CAC score (5 category) univariable	1.69 (1.22 – 2.17)	<0.0001
CAC score (5 category) Age-sex adjusted	1.60 (1.32 – 2.08)	<0.0001
CAC score (5 category) Full adjusted	1.47 (1.04 – 1.91)	0.034
Type of atherosclerotic plaque		
Soft plaque (vs None) univariable	2.13 (1.21 – 2.73)	0.0001
Soft plaque (vs None) Age-sex adjusted	1.65 (1.16 – 2.62)	0.0223
Soft plaque (vs None) Full adjusted	1.61 (1.14 – 2.48)	0.045
Mixed plaque (vs None) univariable	1.52 (1.08 – 2.53)	0.031
Mixed plaque (vs None) Age-sex adjusted	1.48 (0.87 – 2.37)	0.0554
Mixed plaque (vs None) Full adjusted	1.28 (0.73 – 2.20)	0.223
Calcified plaque (vs None) univariable	1.67 (1.24 – 2.26)	<0.001
Calcified plaque (vs None) Age-sex adjusted	1.54 (1.09 – 2.31)	0.0020
Calcified plaque (vs None) Full adjusted	1.378 (1.17 – 2.17)	0.0196

CAC, Coronary Artery Calcium; CADRADS, Coronary Artery Disease-Reporting and Data System;CI, confidence interval

OA-10 INFLAMMATORY ASSESSMENT SCORES MAY PREDICT THE NO-REFLOW PHENOMENON IN STEMI PATIENTS

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Objective: The most important clinical stage of coronary artery disease is acute coronary syndrome. The no-reflow phenomenon (NRP) in STEMI patients has been associated with prognosis. The reasons for the development of NRP have been investigated in various aspects. Inflammatory causes have been accused as an important etiological cause. The systemic immune-inflammation index (SII) based on lymphocyte, neutrophil and platelet counts has been previously investigated as a prognostic factor in coronary artery disease. We evaluated SII as a simple calculated tool for estimating NRP in patients with STEMI undergoing primary percutaneous coronary intervention (PCI).

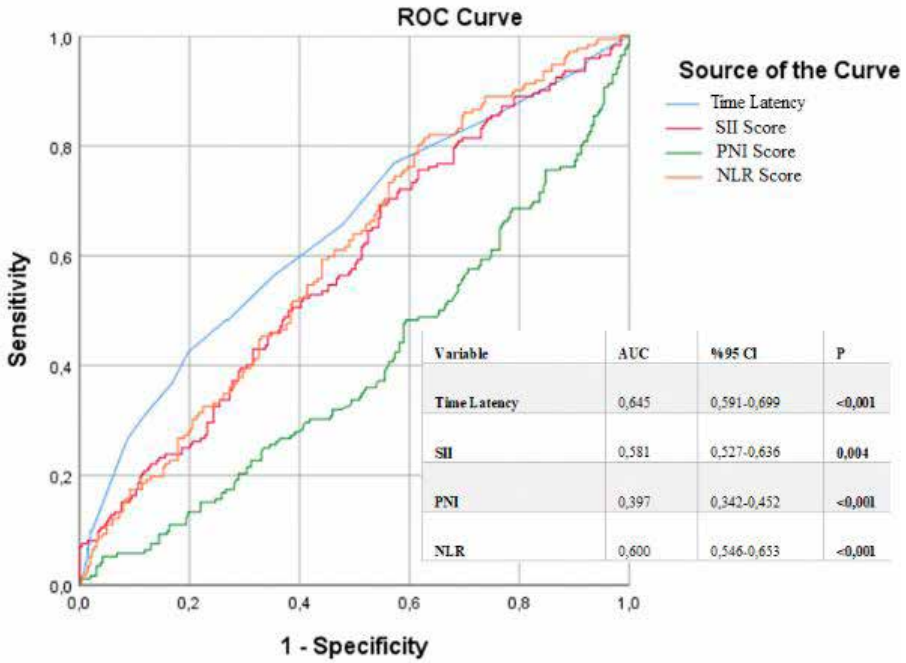
Methods: From December 2014 to December 2019, 440 consecutive patients with acute STEMI who underwent primary PCI within 12 hours of the onset of symptoms were included in our study. NRP development was determined according to clinical, ECG, TIMI flow grade and MIBG grade. The groups were divided into 2 according to the development of NRP or not. The receiver operating characteristic (ROC) curve was used to determine the cut-off value of SII to predict no reflow.

Results: Clinical Variables, laboratory parameters, demographic parameters and SII scores, Prognostic Nutritional Scores (PNI) and Neutrophil/lymphocyte ratios (NLR) of groups with and without NRP in STEMI patients are shown in Table-1.The time from the onset of pain to the time of admission to the hospital is an important indicator for the development of no-reflow. ROC curve analyzes are given in Figure-1. An analysis of the ROC curve showed that the best cutoff of SII to predict no reflow was 1297, with sensitivity and specificity 56% and 53%, respectively (AUC, 0.581; 95% CI 0.527-0.636). It showed that the best cut-off value of the PNI was 37.3, with sensitivity and specificity of 48% and 42%, respectively (AUC, 0.397; 95% CI 0.342-0.452). It showed that the best cut-off value of the NLR was 5.4, with sensitivity and specificity of 59% and 56%, respectively (AUC, 0.600; 95% CI 0.546-0.653).

Conclusion: High SII,NLR and low PNI score may be a promising indicator for the prediction of NRP in these patients.

Keywords: SII, NO-REFLOW, STEMI, NLR

Figure-1



ROC curve analysis for Time Latency, Systemic Immune-Inflammation Index (SII), Prognostic Nutritional Index (PNI), and Neutrophil/Lymphocyte Ratio (NLR).

Table-1

Characteristics	Normal flow(n=266)	No-Reflow (n=174)	P-value
Age	60,5(13,4)	64,8(13,5)	0,001
Women(n,%)	78(29,3)	53(30,4)	0,799
Active smoking (n, %)	114(42,8)	80(45,9)	0,292
Killip class (n, %) Killip I Killip II Killip III Killip IV	216(81,2) 37(13,9) 4(0,15) 9(0,34)	122(70) 33(18,9) 8(0,45)) 11(0,63)	0,028
Anterior infarct location (n, %)	114(42,8)	84(48,2)	0,648
Left ventricular ejection fraction, %	45,7(9,11)	41,9(11,14)	<0,001
Systolic blood pressure (mmHg)	128(23,1)	125(25,1)	0,27
Heart rate (bpm)	82,3(16,4)	85(17,5)	0,099
Time from pain to intervention	5,8(7,4)	9,7(12,3)	<0,001
Peak cardiac troponin (ng/mL)	496 (40–23142)	779 (47–26000)	0,193
Serum glucose (mg/dL)	162,0(87,5)	183,3(98,7)	0,022
Albumin level	3,6(,43)	3,4(,52)	0,002
Total cholesterol (mg/dL	184,4(42)	179,1(42,3)	0,193
Triglyceride (mg/dL)	156,2(85,6)	147,81(106,7)	0,363
Low-density lipoprotein cholesterol (mg/dL)	119,3(35,3)	116,6(33,2)	0,430
High-density lipoprotein cholesterol (mg/dL)	34,9(8,4)	34,4(10,2)	0,594
Haemoglobin (g/dL)	13,9(1,8)	13,5(1,8)	0,027
Neutrophil count (10^9 /L)	9,53(3,6)	10,4(4,0)	0,019
Lymphocyte count (10^9 /L)	2154(1250)	1813(905)	0,001
Monocyte count(10 /L)	688(326)	658(285)	0,323
Systemic immune-inflammation index	1395,3(817)	1669,5(957)	0,002
Prognostic nutritional index	38,1(4,5)	36,2(5,3)	<0,001
Neutrophil to Lymphocyte ratio	5,75(3,48)	6,94(3,70)	0,001

Baseline demographic, clinical, laboratory and angiographic & procedural characteristics of the study patients

OA-12 CAN NO-REFLOW BE PREDICTED BY CREATININE/ALBUMIN RATIO IN STEMI?

Sedat Kalkan

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Objective: ST-elevation myocardial infarction (STEMI) is one of the most important causes of mortality among cardiovascular diseases. It is known that the risk of mortality increases in patients with STEMI who cannot provide adequate flow despite the intervention and who develop no reflow. Pre-procedural estimation of patients who may develop no reflow is important in terms of precautions that can be taken. Patients with high creatinine values and low albumin values constitute the high-risk group after the procedure. In this study, we investigated the effectiveness of the creatinine/albumin ratio in determining the risk of no reflow after the procedure in STEMI patients.

Method: STEMI patients were screened retrospectively, and a total of 1712 patients who met the inclusion criteria were included in the study. The patients were divided into two groups as developing no reflow (n:103) and non-reflow developing (n:1609). The effectiveness of the creatinine/albumin ratio in determining the risk of no reflow in STEMI patients was evaluated.

Results: Demographic characteristics, hemodynamic and laboratory findings of the patients are summarized in Table 1. It was shown that the creatinine/albumin ratio was significantly higher (p<0.001) in patients who developed no-reflow compared to the patient group that did not develop no reflow, and the risk of no reflow increased in parallel with the increase in the value. (Figure 1.)

Conclusion: In conclusion, the creatinine/albumin ratio, which is an indicator of renal functions and anabolic functions, can be used to determine the risk of no-reflow in STEMI patients.

Keywords: Creatinine/Albumin ratio, ST elevation MI, No-reflow

Creatinin/Albumin ratio and No reflow relationship

Table1. Baseline clinical and laboratory variables comparison between the groups.

Variable	No reflow (-) (n=1609)	No Reflow (+) (n=103)	p
Age (years)(SD)	60.3 (13.1)	60.1 (13.3)	0.859
Sex (male) n (%)	1272 (79.1)	74 (71.8)	0.084
Diabetes mellitus, n (%)	642 (39.9)	33 (32)	0.113
Hypertension, n (%)	775 (48.2)	48 (46.6)	0.758
Hyperlipidemia, n (%)	149 (9.3)	5 (4.9)	0.130
Smoking, n (%)	954 (59.3)	58 (56.3)	0.551
Systolic blood pressure (mmHg) (SD)	135.9 (30.8)	138.5 (31.9)	0.409
Diastolic blood pressure (mmHg) (SD)	78 (17.5)	79.3 (18.3)	0.458
Creatinine (mg/dL) (SD)	0.9 (0.3)	1.0 (0.4)	<0.001
C Reactive protein (mg/dL) (SD)	2.1 (3.3)	4.4 (5.7)	<0.001
Glucose (mg/dL) (SD)	160.8 (87.9)	188.2 (102.9)	0.002
Albumin (g/L) (SD)	3.8 (0.4)	3.6 (0.4)	<0.001
In Hospital Mortality n (%)	179 (11.1)	7 (6.8)	0.171

Categorical variable expressed as absolute number and percentage. SD:Standart Deviation

OA-13 THE ROLE OF HEMATOLOGICAL PARAMETERS IN PATIENTS WITH NON-DIPPER HYPERTENSION AND PREDIABETES

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Introduction-Purpose: It is well known that non-dipper hypertension causes more serious adverse cardiovascular outcomes than dipper hypertension. In recent studies, It has been demonstrated that there is a relationship between a number of hematological parameters such as MPV (mean platelet volume), PDW (platelet distribution width), RDW (red cell distribution width) and both adverse cardiovascular outcomes and non-dipper hypertension.

In this study, we aimed to reveal whether there is a difference in hematological parameters between the prediabetic subgroup and the subgroup with normal fasting blood glucose in the non-dipper hypertensive group.

Method: A total of 251 participants, including 176 newly diagnosed hypertensive individuals and 75 normotensive healthy volunteers (35 males, mean age 47±17 years) in the control group were included in the study. Hypertensive participants were divided into 2 groups: 88 dipper hypertensive (44 men, mean age 50±14.4 years) and 88 non-dipper hypertensive (41 men, mean age 51±15.1 years). All participants underwent 24-hour ambulatory blood pressure monitoring. Complete blood count and biochemical analyzes were performed with blood samples taken from the participants.

Afterward, the non-dipper hypertensive group was divided into two subgroups; prediabetics (n=26, 15 males, mean age 50±14) and the subgroup with normal fasting blood glucose (n=39, 15 males, mean age 49±15).

Results: There was no statistically significant difference between non-dipper hypertensives, dipper hypertensives and normotensives in terms of MPV (8.6±1.4, 8.6±1.7, 8.8±1.4 fL; respectively, p=0.518), PDW (18.9±2.9, 19.4±2.2, 19.3±2.6 fL; respectively, p=0.504), and RDW (12.3±1.1, 12.3±1.2, 12.3±1.2 %; respectively, p=0.913).

There was no statistically significant difference between the prediabetic subgroup (n=26, 15 men) and the subgroup with normal fasting blood glucose (n=39, 15 men) in the non-dipper hypertensive patient group; MPV (8.6±1.3 & 8.6±1.4 fL; respectively, p=0.686), PDW (19.3±2.4 & 19.4±2.3 fL; respectively, p=0.156), and RDW (12.0±1.1 & 12.3±0.9%; respectively, p=0.167).

Conclusion: As a result of our study; It has not been shown that a number of hematological parameters such as MPV, PDW, and RDW have a predictive role in the prediction of the non-dipping pattern and adverse cardiovascular outcomes in the non-dipper hypertensive patients and even if in the prediabetic subgroup.

Keywords: Non-dipping, prediabetes, mean platelet volume, platelet distribution width, red cell distribution width

Baseline characteristics, blood pressure, echocardiographic and laboratory parameters of prediabetic and normal fasting blood glucose subgroups in the non-dipper hypertensive patients

Variable	Non-Dipper HT with normal fasting glucose n= 39	Non-Dipper HT with prediabetes n= 26	p
Age, years	49.8±15.2	50.3±14.0	0.030
Gender (male),n (%)	15(38.5)	15(57.7)	0.277
BMI (kg/m2)	32.2±8.7	30.4±4.6	0.916
CAD, n (%)	2(5.3)	0(0.0)	N/A
Smoking, n (%)	18(46.2)	5(19.2)	0.078
LV EF (%)	60.5±3.2	60.4±1.4	0.626
GFR (ml/min)	99.9±21.7	93.9±17.5	0.192
Fasting blood glucose (mg/dL)	93.4±5.2	104.3±3.0	<0.001
Creatinin (mg/dL)	0.77±0.16	0.84±0.16	0.132
Total cholesterol (mg/dL)	209.0±41.4	209.5±56.8	0.581
HDL-cholesterol (mg/dL)	51.0±12.8	46.7±13.3	0.128
LDL-cholesterol (mg/dL)	130.5±35.0	131.4±53.5	0.487
Triglycerides (mg/dL)	150.3±118.6	153.8±80.5	0.694
Hgb (g/dL)	13.8±1.2	14.0±1.0	0.053
WBC (103/mm3)	7.7±1.9	7.0±1.6	0.377
Plt (103/mm3)	245.6±47.7	254.6±67.9	0.964
MPV (fL)	8.6±1.4	8.6±1.3	0.686
RDW (%)	12.3±0.9	12.0±1.1	0.167
PDW (fL)	19.4±2.3	19.3±2.4	0.156
Average 24 h SBP, mmHg	138.0±8.1	138.5±9.9	0.131
Average 24 h DBP, mmHg	84.1±7.3	85.6±9.5	0.869
Average daytime SBP, mmHg	138.0±8.2	139.5±10.4	0.112
Average daytime DBP, mmHg	84.9±7.7	87.0±10.0	0.818

Variable	Non-Dipper HT with normal fasting glucose n= 39	Non-Dipper HT with prediabetes n= 26	p
Average nighttime SBP, mmHg	137.4±10.0	135.3±10.0	0.137
Average nighttime DBP, mmHg	81.2±8.4	81.3±9.2	0.588

BMI: Body mass index, CAD: Coronary artery disease, DBP: diastolic blood pressure, GFR: glomerular filtration rate, h: hour, HDL-cholesterol: High density lipoprotein cholesterol, Hgb: Hemoglobin, HT: hypertensive, LDL-cholesterol: Low density lipoprotein cholesterol, LV EF: Left ventricle ejection fraction, MPV: mean platelet volume, PDW: platelet distribution width, Plt: platelet, RDW: red cell distribution width, SBP: systolic blood pressure, WBC: Wight blood cell

OA-14 EFFECTS OF STATINS ON RED BLOOD CELL DISTRIBUTION WIDTH (RDW) AND MEAN PLATELET VOLUME (MPV) PARAMETERS IN STABLE CORONARY ARTERY DISEASE

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Objectives: Mean platelet volume (MPV) has been shown to be as a predictor of platelet activation which plays an important role in pathophysiology of atherosclerosis. Red cell distribution width (RDW) is a measure of variability of erytrocyte volumes and might reflect underlying chronic inflammation. Both MPV and RDW are associated with increased risk for cardiovascular disease. Since statins have pleiotropic effects, we aim to investigate the effect of statins on this possible hematologic markers of atherosclerotic risk in stable coronary artery disease.

Method: One hundred and twenty one statin naive patients who had undergone coronary angiography for stable coronary artery disease between June 2012 and June 2013 were retrospectively enrolled in this study. Patients were treated with atorvastatin or rosuvastatin. The lipid profile and hematological parameters were measured at baseline and after statin treatment.

Results: 121 patients were included in the study. The mean age was 60.5±9 years and 62% of patients were men. Out of 121 patients; 106 (87.6%) patients received atorvastatin therapy and 15 (12.4%) patients received rosuvastatin therapy. After a mean follow up period of 58 days (minimum 17 days, maximum 720 days), statin treatment markedly reduced low density lipoprotein-cholesterol (LDL-C), total cholesterol and triglyceride levels (p=0.0001, for all). For hematological parameters, only RDW significantly decreased after statin treatment (p=0.001) and the magnitude of decline was similar between atorvastatin and rosuvastatin groups (p=0.44). The ΔRDW were not associated with ΔLDL-C (r=-0.03; p=0.71), Δtriglyceride (r=-0.06; p=0.49) and Δtotal cholesterol levels (r=-0.05; p=0.55). Statins had no effect on MPV levels (p=0.278).

Conclusion: Statin therapy significantly reduce the RDW levels in stable coronary artery disease irrespective of cholesterol levels, which might confirm the antiinflammatory effect of statins. But the association between decreased RDW levels and prognosis in stable coronary artery disease has to be established by multi center, prospective studies in large populations.

Keywords: statins, mean platelet volume, red cell distribution width

Figure 1. Correlations between Delta - RDW with Delta - LDL-C, Delta - triglyceride and Delta - total cholesterol levels

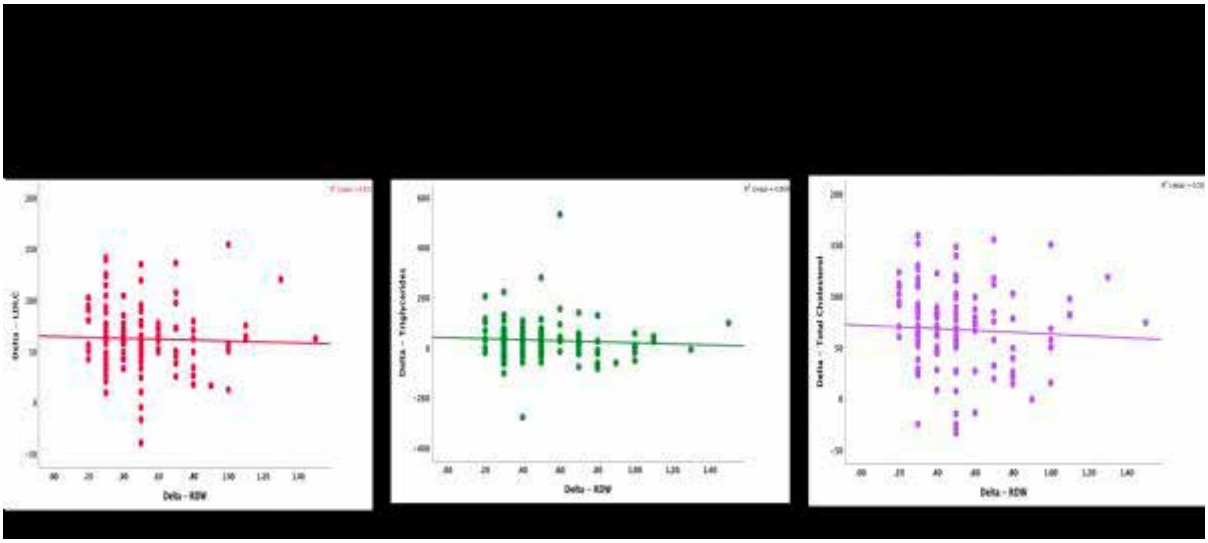

Table 1. Treatment effect of statins on the lipids and hematological parameters

	Before treatment	After treatment	95 % CI	p
RDW (%)	14.14	13.6	0.46 - 0.55	0.001
MPV (fL)	8.76	9.4	1.88 - 0.54	0.278
HDL-C (mg/dL)	46.5	44.6	0.22 - 3.74	0.027
LDL-C (mg/dL)	144.6	82.7	55.9 – 67.7	0.0001
Triglyceride (mg/dL)	161.3	133.3	13.3 – 42.6	0.0001
Total cholesterol (mg/dL)	221.3	154.3	59.8 – 74.2	0.0001

OA-15 EVALUATION OF THE EFFICACY AND SAFETY OF ENALAPRIL/LERCANIDIPINE COMBINATION THERAPY IN HYPERTENSIVE PATIENTS IN TURKISH POPULATION

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Introduction: Hypertension is a global public health problem. Current guidelines recommend an individualized treatment strategy in the treatment of hypertension while taking into account the risk factors. The aim of this study was to evaluate the efficacy, safety and tolerability of the enalapril/lercanidipine combination in the treatment of hypertension in different regions of Turkey

Material & Method: The efficacy, safety and tolerability data of enalapril/lercanidipine treatment between 2019 and 2021 in 473 hypertensive patients who treated in five different outpatient clinics (in Marmara, Aegean, Mediterranean, Central and Southeast Anatolia regions) were evaluated statistically. Data were analyzed using SPSS 23.0-IBM software. The data of before and after the treatment were evaluated by paired sample t-test. Chi-Square Test was used to compare categorical variables. The level of statistical significance was set at $p < 0.05$.

Results: Within the scope of the study, the responses of 473 hypertensive cases to enalapril/lercanidipine combination therapy were evaluated in five different clinics. While the mean systolic blood pressure of the patients was 161.4 before the enalapril/lercanidipine combination treatment, it decreased to 133.9 after the treatment, and this difference was statistically significant ($p<0.001$). While the mean diastolic blood pressure was 93.4 before the treatment, it decreased to 81.3 after the treatment, and also this difference was found to be statistically significant ($p<0.001$). It was observed that 83.92% and 89.9% of the patients who treated with enalapril/lercanidipine achieved target systolic and diastolic blood pressure values respectively (Figure 1). While no side effects were observed in 95.8% (453 people) of the patients, side effects were observed in 4.2% (20 people). The side effects observed in the patients were cough in eight patients, constipation in one person, edema on the back of the feet in one person, and palpitations in ten patients.

Conclusion: As a result of this study, it was observed that the enalapril/lercanidipine combination is an effective and safe treatment option in Turkish Population.

Keywords: Hypertensvion, Enalapril, Lercanidipine

Distribution of Changes in Blood Pressures

Change İn Blood Pressure	No decrease			Decreased		
	n (%)	Mean±SD	Median (Min-Max)	n (%)	Mean±SD	Median (Min-Max)
Diastolic Blood Pressure Before The Treatment (mmhg)	76 (16,0)	85,8±6,5	87 (70-100)	397 (83,9)	94,9±7,7	94 (74-138)
Diastolic Blood Pressure After The Treatment (mmhg)		92,1±4,8	93 (80-100)		79,3±7,9	79 (60-99)
Change İn Blood Pressure	No decrease			Decreased		
	n (%)	Mean±SD	Median (Min-Max)	n (%)	Mean±SD	Median (Min-Max)
Systolic Blood Pressure Before The Treatment (mmhg)	48 (10,1)	143,5±6,5	144 (128-155)	425 (89,9)	163,4±15	163 (135-195)
Systolic Blood Pressure After The Treatment (mmhg)		150,7±7,4	150 (134-168)		132±12,5	132 (110-164)

OA-16 INVESTIGATION OF THE EFFECT OF ACETYLSALICYLIC ACID DOSE AND TIMING ON THE RESULTS IN DUAL ANTIPLATELET THERAPY AFTER PERIPHERAL REVASCULARIZATION

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Objective: Although there are various studies on antiplatelet therapy after peripheral stent and balloon applications, a single randomized clinical trial of dual antiplatelet therapy has associated acetylsalicylic acid (AA) and clopidogrel combination post-procedure with lower revascularization rates in mid-term follow-up. Another shortcoming of the studies is related to the dose and timing of AA in the combination. In this study, the effect of AA added to the combination at different doses and times after peripheral revascularization on clinical outcomes was investigated.

Method: The study included 59 patients who were given a peripheral revascularization decision with TASC-A and B lesions in our clinic and who were given dual antiplatelet therapy after successful iliac stenting. Treatment was started in 29 of the patients (Group 1) as 75 mg clopidogrel (morning) and 100 mg 1x1 AA (evening) and 30 (Group 2) with 75 mg clopidogrel+75 mg AA (morning). Demographic data of the patients, peripheral circulation findings, and bleeding rates of the patients after the procedure were recorded.

Results: Both groups were found to be similar to each other in terms of age, gender, and accompanying comorbid factors ($p>0.05$). When the patients' need for revascularization at the 1st, 6th, and 12th months were evaluated, the patency rate in the first month was 100% in both groups; In the 6th-month follow-up, occlusion requiring reoperation was observed in 1 patient in group 1 and group 2, and occlusion requiring revision was observed in 2 additional patients in group 2 and in 3 additional patients in group 1 in the 12th-month follow-up. The groups were found to be similar in terms of 1-year patency ($p>0.05$). However, in terms of low hemoglobin and bleeding rates requiring replacement, significantly higher rates were found in group 2 compared to group 1 (p: 0.02).

Conclusion: AA dose of 75 mg or 100 mg did not affect 1-year patency rates. However, higher bleeding rates were observed in the group that received both clopidogrel and AA treatment at once (morning) despite the lower dose of AA, suggesting that the same drug may reach the peak level at the same time and increase the risk of bleeding.

Keywords: Peripheral arterial revascularization, dual antiplatelet therapy, acetylsalicylic acid dosing, outcome, bleeding

OA-17 ANTICOAGULATION WITH UNFRACTIONED HEPARIN IN PATIENTS WITH PROSTHETIC VALVE THOROMBOSIS- A SINGLE CENTER STUDY

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Background: Surgical and thrombolytic therapy (TT) are used as effective treatment methods to treat obstructive Prosthetic valve thrombosis (PVT). However, TT is usually contraindicated in patients who suffer PVT in the early postoperative period (first three weeks) or those who present with an acute cerebral thromboembolism. Unfractionated heparin (UFH) infusion seems to be one of the appropriate treatment options in such patients.

Purpose: In this single-center study, we aimed to investigate the efficacy of UFH therapy in patients with PVT.

Methods: This retrospective, observational, single center study included 136 PVT patients (mean age: 50.3 ± 14.6 years; female: 81, male: 55) who did meet the following criteria: (i) PVT with >10 mm thrombus lenght; (ii) a thrombus with embolic risk despite no thrombolytic indication, accompanied with clinical entities such as gradient increase on the valve, acute coronary syndrome, infective endocarditis, and TIA.The success criteria of the treatment was defined as a 75% reduction in the thrombus burden in the absence of major non-fatal complications. Patients with a 50 75% reduction in the thrombus burden were considered as partially successful. The development of major complications indicated treatment failure.

Results: The study included 16 (11.8%) aortic, 97 (71.3%) mitral, 19 (14%) aortic and mitral, 4 (2.9%) tricuspid prosthesis, with 27 (19.9%) obstructive and 109 (80.1%) non-obstructive thrombosis. During the follow-up, 66 (48,5%) patients showed a regression > 50% in the thrombus burden without facing death or major non-fatal complications; therefore the UFH therapy was considered successful in these patients. Fifty-six patients had a < 50% reduction in thrombus load despite the UFH treatment. Furthermore, 14 (10.3 %) patients suffered major complications. UFH treatment was assumed unsuccessful in these 70 patients (51.5%). Nature of the thrombus (27.1% vs. 12.1%; p = 0.028), thrombus area (1.1 (in a range of 0.7-1.6) cm2 vs. 0.8 (in a range of 0.6-1.2) cm2; p = 0.005] and the duration of UFH treatment (15.1 ± 6.7 days vs. 11.8 ± 7.2 days; p = 0.005) were significantly higher in the unsuccessful UFH group. The parameters that were found to be significantly different in the univariate analyses between patients with successful and unsuccessful UFH treatment were further evaluated in multivariate regression analysis. As a result, the obstructive nature of the thrombus (RR: 3.088, 95% CI: 1.191-8.006; p = 0.020), increased thrombus area (RR: 2.400, 95% CI: 1.184-4.864; p = 0.015), and increased duration of UFH therapy (RR: 1.073 95% CI: 1.016-1.133; p = 0.012) were identified as independent predictive parameters for a failed UFH therapy.

Conclusions: We have demonstrated that UFH treatment may be beneficial in patients with PVT that are unsuitable for surgical and TT. Our findings have revealed that the most significant factor affecting the success of UFH treatment is the thrombus burden.

Keywords: Prosthetic, valve, thrombosis, ufh

OA-18 THE PREDICTIVE ROLE OF PROGNOSTIC NUTRITIONAL INDEX AND SYSTEMIC IMMUNE INFLAMMATION INDEX TO THE AORTIC VALVE CALCIFICATION IN THE ELDERLY POPULATION WITH CHRONIC RENAL FAILURE

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Introduction: Aortic valve calcification is characterized by increased echogenicity and thickening of the valves on echocardiography. The frequency of aortic valve calcification increases in the presence of chronic renal failure and with age.

Inflammatory and immune system cells have an important role in the pathogenesis of atherosclerosis as well as play a role in the pathogenesis of heart valve calcification. Therefore, the systemic immune inflammation index (SII), which includes peripheral neutrophil, lymphocyte and platelet counts, was developed. The prognostic nutritional index (PNI) is a combined score based on serum albumin and lymphocyte values, reflecting both the immunological and nutritional status of the patient.

So, the aim of the study was to reveal the relationship between aortic valve calcification and SII and PNI in the elderly population with chronic renal failure.

Method: Patients over 65 years of age who applied to the cardiology outpatient clinic with chronic renal failure between December 2018 and November 2021 were included in the study. The patients were divided into two groups as group 2 (aortic valve calcification detected on echocardiography) (68 patients) and group 1(control group- undetected aortic valve calcification on echocardiography) (66 patients). The study was designed as retrospective, observational. ROC (Receiver Operating Characteristic) analysis was performed for the cut-off value of SII and PNI values.

Results: There was no statistically significant difference between the groups in terms of mean age, gender and BMI among the patients included in the study. Comorbidities of hypertension, diabetes, hyperlipidemia, and coronary artery disease were similar between the groups. Hemoglobin and neutrophil values from biochemical parameters were higher in group 2 than group 1 (14.77 (±1.49) vs 14.00 (±1.87), p=0.009 and 5.97 (±1.82) vs. 5.17 (±1.47), p=0.006, respectively). Albumin and lymphocyte values were lower in group 2 than in group 1 (2.49 (±0.81) vs 2.89 (±0.64), p=0.002 and 2.20 (±0.63) vs. 2.70 (±0.85), p<0.001, respectively).

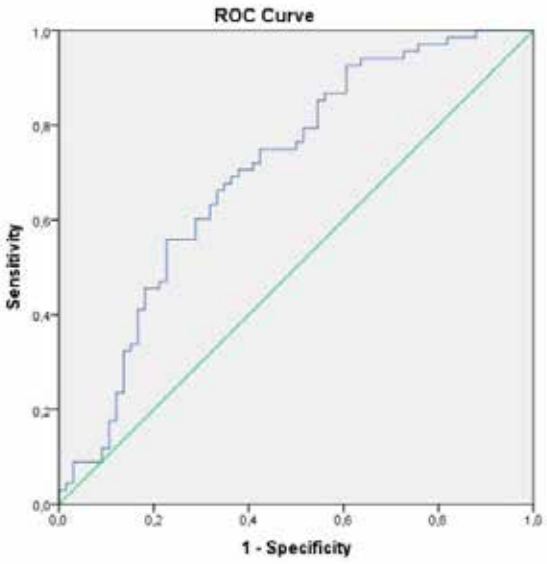
The mean SII value was 674.7 (±285.8). It was statistically significantly higher in group 2 (754.7 (±272.4)) than group 1 (592.2 (±277.5)) (p=0.001). SII >604.8, 70% sensitivity and 65% specificity (ROC area under curve: 0.704, 95% CI: 0.615-0.793, p<0.001) is associated with aortic valve sclerosis (figure 1).

The mean value of PNI was 28.93 (±6.36). It was statistically significantly higher in group 2 (26.91 (±7.53)) than group 1 (24.95 (±8.09)) (p=0.002). PNI >27.4, 65% sensitivity and 60% specificity (ROC area under curve: 0.657, 95% CI: 0.564-0.751, p=0.002), is associated with aortic valve sclerosis (figure 2).

Conclusion: High SII and low PNI in the elderly with chronic renal failure are associated with the presence of aortic valve calcifications. This study may lead to future large-scale randomized studies on the relationship of SII and PNI with aortic valve calcification.

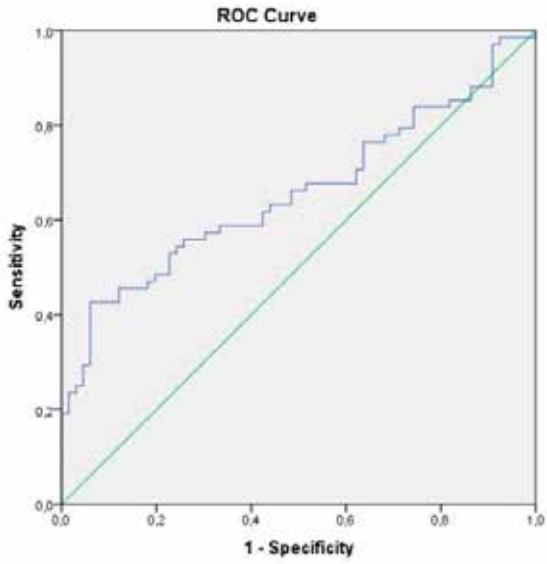
Keywords: aortic valve calcification, systemic immune inflammation index, prognostic nutritional index, chronic renal failure, elderly

Figure 1



The cut-off value of the systemic immune inflammation index as a predictor of aortic valve calcification in the ROC curve

Figure 2



The cut-off value of the prognostic nutritional index as a predictor of aortic valve calcification in the ROC curve

Table 1

	Group I (n=66)	Group II (n=68)	Total (n=134)	P value
Age (years) mean±std	72.5 (±5.3)	74.4 (±5.9)	73.4 (±5.7)	0.054
Male sex, n (%)	28 (42.4)	37 (54.4)	65 (48.5)	0.165
Smoking, n (%)	6 (9.1)	8 (11.8)	14 (10.4)	0.613
BMI, kg/m2, mean±std	25.39 (±3.66)	24.96 (±3.56)	25.17 (±3.60)	0.494
Heart rate, /min	74.2 (±7.0)	72.0 (±9.1)	73.1 (±8.2)	0.126
Hypertension, n (%)	37 (56.1)	34 (50.0)	71 (53.0)	0.482
DM, n (%)	11 (16.7)	11 (16.2)	22 (16.4)	0.939
CAD, n (%)	32 (48.5)	27 (39.7)	59 (44.0)	0.306
Hyperlipidemia, n (%)	24 (36.4)	24 (35.3)	48 (35.8)	0.897
Urea, mg/dL	37.74 (±14.94)	36.69 (±15.50)	37.21 (±15.18)	0.690
Creatinine, mg/Dl	1.98 (±0.57)	1.90 (±0.57)	1.94 (±0.57)	0.427
WBC, × 109 /L	8.61 (±2.17)	9.12 (±3.58)	8.87 (±2.97)	0.325
Neutrophil, x109/L	5.17 (±1.47)	5.97 (±1.82)	5.57 (±1.70)	0.006
Hemoglobin, g/Dl	14.00 (±1.87)	14.77 (±1.49)	14.39 (±1.73)	0.009
Platelet, x109/L	286.44 (±68.01)	267.65 (±51.46)	276.90 (±60.69)	0.073
Lymphocyte, x109/L	2.70 (±0.85)	2.20 (±0.63)	2.44 (±0.78)	<0.001
Fasting blood sugar, mg/dl	105.17 (±21.57)	108.19 (±23.06)	106.70 (±22.31)	0.435
Albumin, g/dl	2.89 (±0.64)	2.49 (±0.81)	2.69 (±0.75)	0.002
PNI	28.93 (±6.36)	24.95 (±8.09)	26.91 (±7.53)	0.002
SII	592.2 (±277.5)	754.7 (±272.4)	674.7 (±285.8)	0.001
Total cholesterol, mg/dL	177.36 (±34.23)	171.21 (±36.01)	174.24 (±35.19)	0.313
Triglyceride, mg/dL	184.06 (±103.03)	192.34 (±98.87)	188.26 (±100.65)	0.636
HDL, mg/dL	44.15 (±16.44)	40.37 (±9.23)	42.23 (±13.37)	0.101
LDL, mg/dL	101.20 (±28.02)	96.69 (±28.75)	98.91 (±28.38)	0.360
Sodium, mEq/L	140.33 (±2.92)	139.56 (±2.40)	139.94 (±2.69)	0.095
Potassium, mmol/L	4.39 (±0.43)	4.32 (±0.42)	4.36 (±0.43)	0.378
Calcium, mg/dl	8.75 (±0.54)	8.69 (±0.60)	8.72 (±0.57)	0.521
Phosphate, mg/dl	4.19 (±0.97)	4.07 (±1.05)	4.13 (±1.01)	0.518
LVEF,%	55.17 (±8.38)	56.18 (±7.77)	55.68 (±8.06)	0.471
LVEDD, mm	48.20 (±5.41)	48.41 (±5.46)	48.31 (±5.42)	0.820
LVESD, mm	30.71 (±6.83)	30.99 (±6.91)	30.85 (±6.85)	0.818
LA diameter, mm	38.8 (±6.6)	40.0 (±6.6)	38.9 (±6.6)	0.905

Demographic, clinical, biochemical and imaging finding of study population

OA-20 PULMONARY ARTERY DIAMETER AS A PREDICTS OVERALL MORTALITY ON CHEST CT IN-HOSPITAL PATIENTS WITH COVID-19 PNEUMONIA

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Background: Enlargement of pulmonary artery (PA) trunk diameter could be helpful in risk stratification by the chest computed tomography (CT) on the admission of COVID-19 patients.

Methods: The aim was to investigate the association between pulmonary artery enlargement and overall mortality in COVID-19 pneumonia. We conducted a single-center, retrospective, observational study between January 2021 and May 2021 in tertiary level hospitals in Gebze, Turkey. According to their survivor status, subjects were divided into two groups (survivors and non-survivors). Then biochemical, demographic, and clinical parameters were compared via the two groups to assess the predictive value of PA diameter on chest CT images.

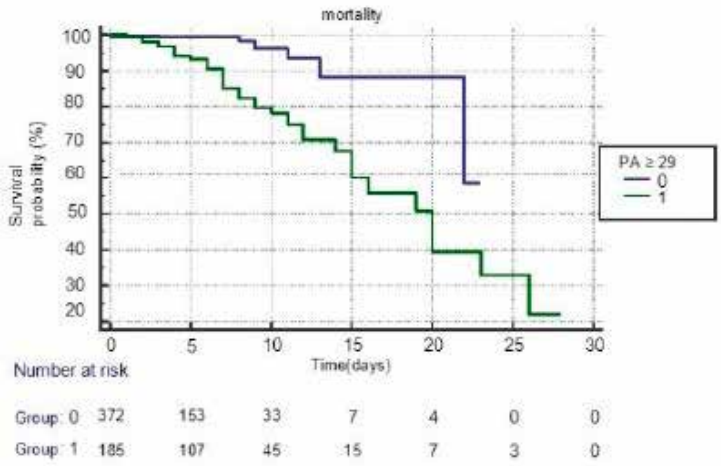
Results: In the enrolled 594 COVID-19 in-hospital patients (median age was 45 (34-58) years, and 263 patients (44.3%) were female), 44 patients (7.4%) died during their hospitalization (table- 1). Receiver operator characteristic curve of main, left and right pulmonary artery diameter for predicting deaths. Main PA diameter >29 mm, with 79.55% sensitivity and 87.19% specificity. Area under the rock curve (AUC) was 0.879 (p<0.001) (figure-1)

At cox's regression analysis adjusted with ages, comorbidities, oxygen saturation, fewer, hs-cTnI and inflammatory parameters were predicting in-hospital mortality in patients with COVID-19 infection (figure-2).

Conclusions: PA dilatation is strongly associated with in-hospital mortality in hospitalized patients with COVID-19 pneumonia. Thus increased PA diameter on chest CT at admission may guide rapid and early diagnosis of high-risk patients.

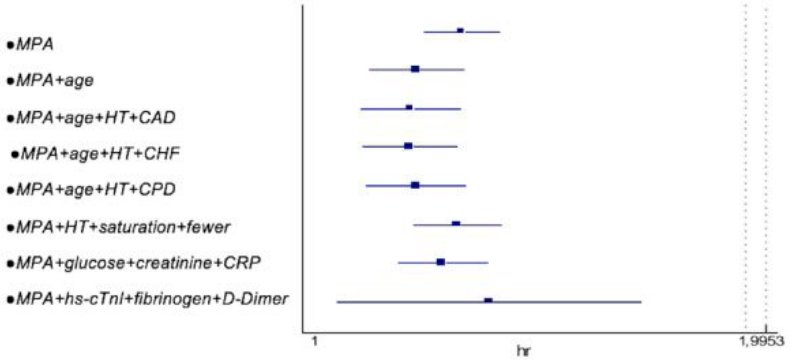
Keywords: Pulmonary artery, COVID-19, mortality

Figure-1



Kaplan-Meier survival curves for PA trunk diameter showed that PA diameter >29 mm was significant predictor of mortality. (long-rank p<0.001, median survival time was 28 days

figure-2



At cox's regression analysis adjusted with ages, comorbidities, oxygen saturation, fewer, hs-cTnI and inflammatory parameters were predicting in-hospital mortality.

Table-1

Variable	Survival	Non-survival	Total	P value
Age (years)	45±15	71±13	47±17	<0.001
Gender n(%) (male/female)	44-56	45.5-54.5	41.1-55.9	0.85
DM, n(%)	71 (13.6)	8 (18.2)	79 (13.9)	0.397
HT, n(%)	111 (21.2)	22 (50)	133 (23.5)	<0.001
CHF, n(%)	6(1.1)	8 (18.2)	14(2.5)	<0.001
CAD, n(%)	15(2.9)	6 (13.6)	21(3.7)	<0.001
Smoking, n(%)	171 (32.7)	14 (31.8)	185 (32.6)	0.905
Saturation O(%)	94±3	90±7	93±4	<0.001
Fewer(D)	37.2±0.8	37.5±0.8	37.2±0.8	0.019
Heart rate bpm(mn)	96	98	96	0.053
Systolic blood pressure, mmHg	114±8	110±11	115±9	0.002
Main pulmonary artery diameter, mm	25.7±3.4	32.1±4.4	26.2±3.9	<0.001
Right pulmonary artery diameter, mm	17.8±3.2	24.1±4.2	18.3±3.7	<0.001
Left pulmonary artery diameter, mm	17.6±2.9	23.7±3.8	18.1±3.4	<0.001
Glucose (mg/dL)	100±89	134±106	101±90	<0.001
Creatinine(mg/dL)	0.8±0.7	1.2±0.8	0.8±0.7	<0.001
BUN (mg/dL)	12±10	33±19	33±19	<0.001
AST (U/L)	23±17	31.5±23	24±18	<0.001
ALT(U/L)	22±16	20±13.5	22±16	0.352
Troponin (ng/mL)	0.001±0.003	0.03±0.13	0.013±0.042	<0.001
Ferritin (µg/L)	100.1±41.6	401±153.5	109±43.5	<0.001
Hs-CRP(mg/L)	7.2±1.7	93.2±43.8	7.8±1.9	<0.001
White blood cell count, x103/ml	6.7±2.6	11.8±6.5	7.1±3.4	<0.001
Hemoglobin (g/dL)	13.6±1.6	11.5±2.6	13.4±1.8	<0.001
Thrombocyte (103/µL)	233±81	245±129	234±85	0.344

Baseline patient characteristics and clinical features of cohort

OA-21 PROGNOSTIC IMPORTANCE OF BUNDLE BRANCH BLOCK AT INITIAL ECG ON NO-REFLOW IN MYOCARDIAL INFARCTION PATIENTS WITH TOTAL VESSEL OCCLUSION

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Objective: No-reflow is a poor prognosticator for left ventricular remodeling, function, and acute and long-term clinical events and survival. Prediction of possible worsened outcomes such as no-reflow in myocardial infarction patients is crucial to provide timely aggressive therapeutic strategies. We aimed to investigate the relationship between bundle branch block (BBB) on admission electrocardiography (ECG) and outcomes, including no-reflow and post-procedural left ventricular and renal functions in myocardial infarction patients with total vessel occlusion.

Method: A total of 332 myocardial infarction patients with total vessel occlusion who underwent percutaneous coronary intervention (PCI) between January 2020 and December 2021 were included. We analyzed the demographics, laboratory findings, admission ECG features (prior to coronary angiography), coronary angiogram views, and left ventricular ejection fraction (LVEF) one day following the intervention. The patients were classified into two groups, those with and without bundle branch block on the admission ECG. Findings were compared between the two groups.

Results: Bundle-branch block was detected in 19 patients (5.7%). The patients with BBB developed significantly higher incidences of no-reflow and contrast-induced nephropathy than those without BBB (31.6 % vs. 9.3%, p=0.002 and 42% vs 10.5%, p<0.001, respectively). Also, the patients with BBB had significantly lower LVEF [median (IQR), 35 (32-40) vs. 45 (40-50), p<0.001]. According to multivariate regression analysis, BBB [OR (95% CI), 3.616 (1.131-11.561), p=0.030], age [OR (95% CI), 1.061 (1.020-1.104), p=0.003], longer stent size [OR (95% CI), 1.045 (1.014-1.076), p=0.004], and history of chronic heart failure [OR (95% CI), 4.036 (1.57-10.195), p=0.003] were indepently associated with no-reflow.

Conclusion: BBB, along with age, longer stent size and history of chronic heart failure, was independently associated with no-reflow. BBB on admission ECG, as an easy tool, could predict no-reflow in myocardial infarction patients with total vessel occlusion.

Keywords: No-reflow, myocardial infarction, bundle branch block, ECG

Table. Demographic, clinical, laboratory findings, characteristics of patients and multivariate analysis.

	Overall (n=332)	BBB(+) (n=19)	BBB(-) (n=313)	P-value
Male, n (%)	272 (81.9)	14 (73.7)	258 (82.4)	0.336
Age (years), mean [SD]	56.5±11.1	59.3±9.3	56.3±11.2	0.251
No-reflow, n(%)	35 (10.5)	6 (31.6)	29 (9.3)	0.002
EF (%), median [IQR]	45 [40-50]	35 [32-40]	45 [40-50]	<0.001
Stent length (mm), median [IQR]	20 [16-28]	20 [17-26.5]	20 [16-28]	0.959
Stent diameter (mm), median [IQR]	3 [3-3.25]	3 [2.75-3.5]	3 [3-3.25]	0.517
Hospital stay (day), median [IQR]	5 [3-7]	7 [3.5-10]	5 [3-6]	0.19
Contrast induced nephropathy, n(%)	41 (12.3)	8 (42)	33 (10.5)	<0.001
Initial Vital Signs				
"SBP (mmHg), median [IQR]"	135 [120-148]	138 [121-170]	134 [120-147]	0.300
DBP(mmHg), median [IQR]	80 [70-90]	85 [69-90]	80 [70-90]	0.560
Heart Rate, median [IQR]	80 [70-88]	92 [83-102]	79 [70-87]	<0.001
Hgb (g/dL), median [IQR]	13.9 [13-15]	14.1 [13.3-14.8]	13.9 [13-15.1]	0.787
WBC (× 103/µL), median [IQR]	12.8 [11.1-14.6]	14.1 [13.1-15.6]	12.7 [11.1-14.5]	0.019
Platelet (× 103/µL), median [IQR]	259 [222-297]	277 [233-340]	258 [222-295]	0.083
Troponin I (ng/mL), median [IQR]	2.55 [0.80-5.72]	3.76 [0.55-11.4]	2.37 [0.81-5.61]	0.422
CK-MB (ng/mL), median [IQR]	35 [25-47]	43 [26.5-54.5]	35 [25-46]	0.281
eGFR (mL/min/1.73m2), mean [SD]	86±23.35	93.47±22.55	85.55±23.36	0.152
Creatinine (mg/dL), median [IQR]	0.90 [0.78-1.03]	0.80 [0.70-0.94]	0.90 [0.79-1.03]	0.880
Glucose (mg/dL), median [IQR]	130 [109-174]	148 [132-232]	128 [108-171]	0.021
Comorbidities				
Hypertension, n (%)	151 (45.5)	10 (52.6)	141 (45)	0.519
Diabetes, n (%)	78 (23.5)	5 (26.3)	73 (23.3)	0.765
Smoking, n (%)	188 (56.6)	9 (47.4)	179 (57.2)	0.402
Coronary artery disease, n (%)	2 (0.6)	0	2 (0.6)	0.727
Chronic heart failur, n(%)	44 (13.3)	6 (31.6)	38 (12.1)	0.015
COPD, n (%)	19 (5.7)	1 (5.3)	18 (5.8)	0.929
Hiperlipidemia, n (%)	138 (41.6)	11 (57.9)	127 (40.6)	0.137
Univariable and multivariable predictors of no-reflow				
	Univariate Analysis		Multivariate Analysis	

	Overall (n=332)	BBB(+) (n=19)	BBB(-) (n=313)	P-value
	OR (95% CI)	p value	OR (95% CI)	p value
Bundle branch block	4.52 (1.59-12.78)	0.004	3.616 (1.131-11.561)	0.030
Age	1.05 (1.02-1.08)	0.001	1.061 (1.020-1.104)	0.003
Systolik blood pressure	1.011 (1.001-1.021)	0.037	0.998 (0.986-1.010)	0.763
WBC	1.122 (1.009-1.248)	0.033	1.079 (0.951-1.224)	0.237
Stent length	1.035 (1.009-1.062)	0.009	1.045 (1.014-1.076)	0.004
Chronic heart failure	5.070 (2.324-11.061)	<0.001	4.036 (1.57-10.195)	0.003
hypertension	2.204 (1.070-4.542)	0.032	1.597 (0.602-4.239)	0.347
Troponin I	1.050 (1.019-1.082)	0.001	1.035 (0.985-1.088)	0.175
Creatine kinase	1.001 (1.001-1.002)	0.001	1.001 (0.999-1.003)	0.342
CK-MB	1.016 (1.006-1.026)	0.003	1.000 (0.980-1.088)	0.987
Pain to balloon time	1.273 (1.093-1.483)	0.002	0.999 (0.995-1.004)	0.694

COPD,chronic obstructive pulmonary disease; CK-MB, creatine kinase-MB; DBP,diastolic blood pressure; Hgb, hemoglobin; SBP, systolic blood pressure; WBC, white blooc count

OA-22 THE PREDICTORS OF EMBOLIC EVENTS IN LEFT-SIDED INFECTIVE ENDOCARDITIS

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Background: Infective endocarditis (IE) is a potentially life-threatening clinical entity with an annual mortality rate of up to 40%. IE is often accompanied by various complications that contribute to morbidity and mortality, primarily cerebral and systemic embolic events (EEs). Although a vegetation size greater than 10 mm is generally recommended as an optimal cut-off for estimating the risk of EEs, it has substantial potential for selection bias. Previous literature on embolic risk in patients with large vegetation has given you varied and conflicting results for vegetation size. Some studies have suggested that the risk of EEs is not increased with larger vegetation sizes. This retrospective study aimed to evaluate the relationship between EEs and clinical, microbiological parameters, and echocardiographic parameters including vegetation size.

Methods: We retrospectively reviewed patients with IE who were admitted to a single institution between November 2015 and August 2022. A total of 235 patients (mean age: 56.0±15.8 years; males: 140) with IE were included in the study. Transesophageal echocardiography detected vegetation in all patients. The study population was divided into two groups based on EEs. The primary endpoint was at least one EE, including coronary, cerebral, splenic, mesenteric, and peripheral artery embolism.

Results: During the hospitalization or 3-month period, 105 (44.6%) patients had at least one documented EE. Comparison of demographic, echocardiographic, microbiological and clinical parameters between IE patients with and without EEs is included in Table 1. In the ROC curve analysis, vegetation size higher than 13.5 mm predicted the presence of EEs with a sensitivity of 84.8% and a specificity of 63.8% (AUC: 0,780 95% CI: 0.722-0.839, p<0,001) (Figure 1). The study population was divided into two groups using a cut-off vegetation size of 13.5 mm. All demographic, echocardiographic and electrocardiographic parameters were compared between these subgroups (Figure 2). The prevalence of EEs was significantly higher in patients with vegetation size of >13.5 mm (65.4 vs. 16.2%; p<0.001), akut kidney injury (27.9 vs.16.2, p=0.034), newly developed heart failure (36 vs. 13.1%, p<0.001), septic shock (22.8 vs. 9.1%, p=0.006) (Figure 2). Moreover, there was no significant relationship between in-hospital or 3-month mortality and vegetation size greater than 13.5 mm. Vegetation size (odds ratio [OR] 9.614; 95% confidence interval [CI], 4.539 to 20.363), S.aureus (OR 2.835; 95% CI, 1.295 to 6.203), syncope (OR 4.535; 95% CI, 1.802 to 11.411), and moderate-severe valve dysfunction (OR 2.301;95% CI, 1.089 to 4.859) were independent risk factors for EEs.

Conclusions: Current data suggest that a vegetation size greater than 13.5 mm as independent risk factors for systemic or cerebral embolism. Hence, early surgery may be considered to prevent EEs for this group.

Keywords: Infective endocarditis, systemic embolism, echocardiography, vegetation

Figure 1

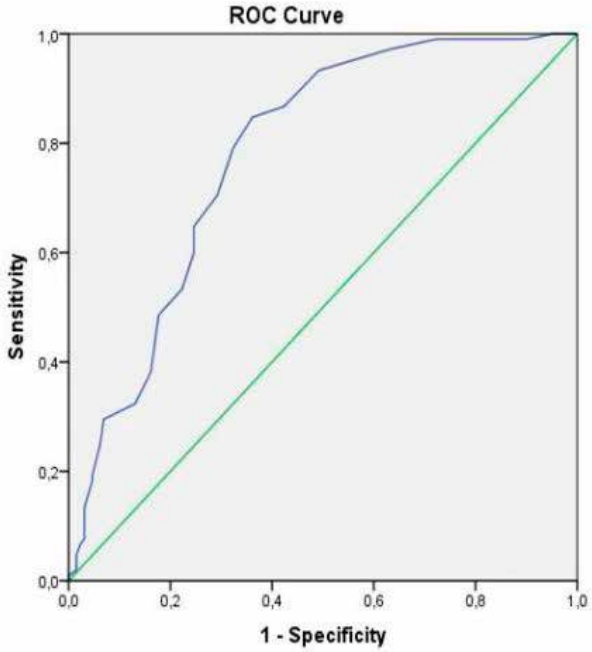
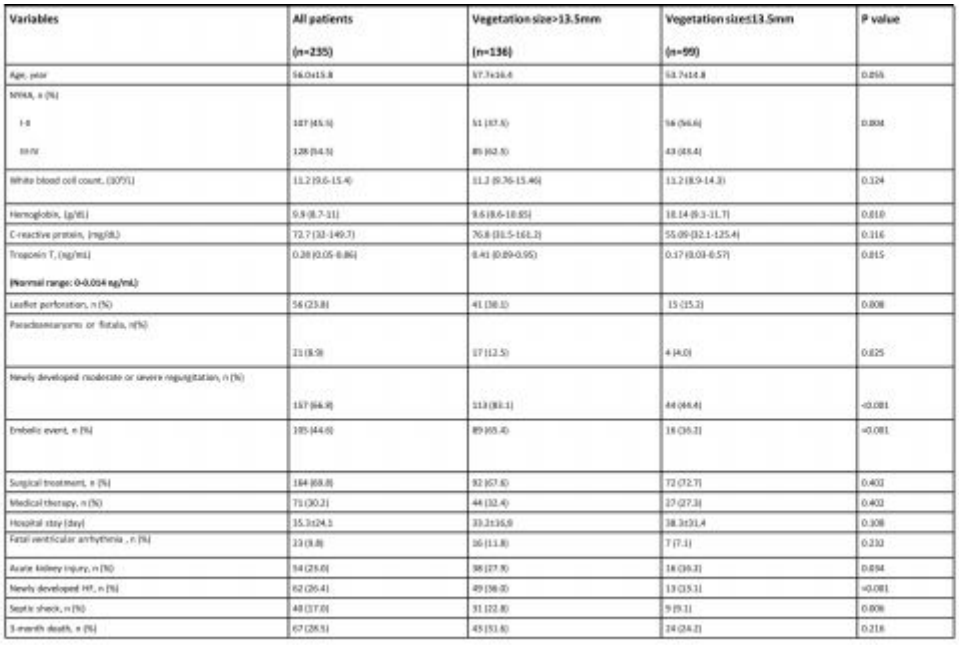


Figure 2



Variables	All patients (n=235)	Vegetation size>13.5mm (n=136)	Vegetation size≤13.5mm (n=99)	P value
Age, year	56.0±15.8	57.7±16.4	53.7±14.8	0.055
NYHA, n (%)				
I-II	107 (45.5)	51 (37.5)	56 (56.6)	0.004
III-IV	128 (54.5)	85 (62.5)	43 (43.4)	
White blood cell count, (10^3/L)	11.2 (9.6-15.4)	11.3 (9.76-15.46)	11.2 (8.9-14.3)	0.324
Hemoglobin, (g/dL)	9.9 (8.7-11)	9.6 (8.6-10.85)	10.14 (9.3-11.7)	0.010
C-reactive protein, (mg/dL)	72.7 (32-149.7)	76.8 (31.5-161.2)	55.09 (32.1-125.4)	0.116
Troponin T, (ng/mL) (Normal range: 0-0.014 ng/mL)	0.28 (0.05-6.86)	0.41 (0.89-0.95)	0.17 (0.03-0.57)	0.015
Leaflet perforation, n (%)	56 (23.8)	41 (30.1)	15 (15.2)	0.008
Pseudoaneurysms or fistula, n(%)	21 (8.9)	17 (12.5)	4 (4.0)	0.025
Newly developed moderate or severe regurgitation, n (%)	157 (66.8)	113 (83.1)	44 (44.4)	<0.001
Embolic event, n (%)	105 (44.6)	89 (65.4)	16 (16.2)	<0.001
Surgical treatment, n (%)	164 (69.8)	92 (67.6)	72 (72.7)	0.402
Medical therapy, n (%)	71 (30.2)	44 (32.4)	27 (27.3)	0.402
Hospital stay (day)	35.3±24.1	33.2±16.9	38.3±31.4	0.108
Fatal ventricular arrhythmia , n (%)	23 (9.8)	16 (11.8)	7 (7.1)	0.232
Acute kidney injury, n (%)	54 (23.0)	38 (27.9)	16 (16.2)	0.034
Newly developed HF, n (%)	62 (26.4)	49 (36.0)	13 (13.1)	<0.001
Septic shock, n (%)	48 (17.0)	31 (22.8)	9 (9.1)	0.008
3-month death, n (%)	67 (28.5)	45 (33.8)	24 (24.2)	0.218

Table 1

Variables	Embolic event (-) (n=130)	Embolic event (+) (n=105)	P value
Age, year	53.3±14.9	59.3±16.4	0.004
Gender (male), n (%)	83 (63.8)	57 (54.3)	0.138
Body mass index	25.2 (23.4-28.1)	24.8 (22.1-28.8)	0.541
Diabetes Mellitus, n (%)	26 (20)	29 (27.6)	0.170
Hypertension, n (%)	33 (25.4)	50 (47.6)	<0.001
Chronic kidney disease	27 (20.8)	12 (11.4)	0.056
Chronic obstructive pulmonary disease, n (%)	9 (6.9)	6 (5.7)	0.706
Cancer, n (%)	2 (1.5)	5 (4.8)	0.145
Prior Coronary artery disease, n (%)	14 (10.8)	18 (17.1)	0.257
Atrial fibrillaton, n (%)	22 (16.9)	21 (20.0)	0.544
STS Score	3.97 (2.36 (7.29)	4.7 (2.5-8.33)	0.293
NYHA, n (%) I-II III-IV	 66 (50.8) 64 (49.2)	 41 (39.0) 64 (61.0)	 0.073
Clinical presentation, n (%) Chest pain Dyspnea Palpitation Fever Syncope	 36 (27.7) 101 (77.7) 65 (50.0) 100 (76.9) 14 (10.8)	 35 (33.3) 85 (81) 67 (63.8) 93 (88.6) 30 (28.6)	 0.349 0.541 0.034 0.020 0.001
White blood cell count, (109/L)	10.7 (8.61-14.07)	12.5 (9.85-15.56)	0.003
Hemoglobin, (g/dL)	10.05 (8.9-11.3)	9.7 (8.5-10.6)	0.039
Platelet (109/L)	127.5(28.3-298)	202 (70.6-245.9)	0.096
CRP, (mg/dL)	58.9 (32.1-132)	78.1 (28.5-179.6)	0.049
ESR, (mm/h)	60 (38-79)	74 (57-88)	0.002
Troponin T, (ng/mL)	0.23 (0.03-0.57)	0.42 (0.1-1.1)	0.001
Procalcitonin, (ng/mL)	1.06 (0.22-5.67)	3.2 (1.02-16.3)	<0.001
LV ejection fraction (%)	60 (55-60)	55 (55-60)	0.003

Variables	Embolic event (-) (n=130)	Embolic event (+) (n=105)	P value
Infected valve location, n (%) Aortic Mitral	 49 (37.7) 60 (46.2)	 41 (39.0) 64 (61.0)	 0.832 0.024
Infected valve type, n (%) Native Bioprosthetic Mechanical prosthetic	 102 (78.5) 5 (3.8) 22 (16.9)	 76 (72.4) 7 (6.7) 25 (23.8)	 0.280 0.329 0.189
Size of vegetation, (mm)	11 (9-16)	19 (15-23)	<0.001
Rupture of chordae, n (%)	19 (14.6)	10 (9.5)	0.238
Leaflet perforation, n (%)	33 (25.4)	23 (21.9)	0.534
Pseudoaneurysms or fistula, n(%)	6 (4.6)	15 (14.3)	0.010
Newly developed moderate or severe regurgitation, n (%)	69 (53.1)	88 (83.8)	<0.001
Causative organism, n (%) -S. aureus -S. epidermidis -CNS -Group B streptococcus -Brucella melitensis -Candida albicans -HACEK -Other organism	 18 (13.8) 4 (3.1) 21 (16.2) 10 (7.7) 1 (0.8) 5 (3.8) 4 (3.1) 25 (19.2)	 37 (35.2) 7 (6.7) 16 (15.2) 5 (4.8) 1 (1.0) 4 (3.8) 4 (3.8) 18 (17.1)	 <0.001 0.163 0.848 0.361 0.695 0.631 0.516 0.681
Surgical treatment	97 (74.6)	67 (63.8)	0.073
Medical therapy	33 (25.4)	38 (36.2)	0.073
Hospital stay (day)	37.1±28.2	33.3±17.7	0.226
Fatal ventricular arrhythmia, n (%)	10 (7.7)	13 (12.4)	0.229
Acute kidney injury, n (%)	25 (19.2)	29 (27.6)	0.129
Newly developed heart failure, n (%)	17 (13.1)	45 (42.9)	<0.001
Septic shock, n (%)	13 (10.0)	27 (25.7)	0.001
3-month death, n (%)	29 (22.3)	38 (36.2)	0.019

Comparison of the demographic, echocardiographic and clinical characteristics of IE patients with and without embolic events.

OA-23 PROGNOSTIC SIGNIFICANCE OF ADDITION OF ELECTROCARDIOGRAPHIC FINDINGS TO THE MAGGIC HEART FAILURE RISK SCORE

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Background: The Meta-analysis Global Group in Chronic Heart Failure (MAGGIC) is a scoring system that is easy to use in outpatient or inpatient settings and was developed to predict the survival of heart failure (HF) patients after hospitalization.

Aim: This study aims to determine the prognostic significance of MAGGIC risk score combined with electrocardiography (ECG) parameters in decompensated patients with heart failure with reduced left ventricular ejection fraction (HFrEF) who were hospitalized for worsening HF.

Methods: A total of 562 HF patients with New York Heart Association (NYHA) II-IV functional class who were discharged after hospitalization for decompensated HF between 2013 and 2018 in a single center were included. MAGGIC risk scores of all participating patients were calculated according to baseline characteristics gathered using data from the initial hospitalization for HF. In addition, electrocardiographic findings of all patients were examined.

Results: During the follow-up period (4.5±1.2 years) 177 patients died. MAGGIC scores were observed to be higher in non-survivors compared to surviving patients (28.69±7.01 vs. 22.82±6.05, p<0.001). After a multivariate analysis, MAGGIC score (OR:1.090, p<0.001), development of cardiorenal syndrome (OR:2.035, p<0.001), presence of left bundle branch block (LBBB) (OR:1.931, p<0.001), atrial fibrillation (AF) (OR:1.817, p<0.001), and fragmented QRS (fQRS) (OR:1.671, p=0.002) on ECG were found to be independent predictors of mortality. While the MAGGIC score was shown to predict mortality (AUC=0.739), its predictive power was improved when combined with AF (AUC=0.752), LBBB (AUC=0.745), and fQRS (AUC=0.757) respectively, as well as in the combined final model (MAGGIC score, AF, LBBB, fQRS) (AUC=0.787).

Conclusions: Our findings showed that addition of electrocardiographic findings to the MAGGIC heart failure risk score has prognostic significance in decompensated patients with HFrEF.

Keywords: electrocardiogram, MAGGIC risk score, prognosis

Figure 1

The ROC curves for MAGGIC-AF scores, MAGGIC-LBBB scores, MAGGIC-fQRS scores.

Table 1

Univariate and Multivariate Cox Regression Analysis on the Risk Factors Associated Mortality in Patients with HF

OA-24 PREDICTORS OF MORTALITY IN PATIENTS UNDERGOING CORONARY STENT PROCEDURE: A SINGLE-CENTER EXPERIENCE

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Objective: Stent thrombosis can be defined as thrombotic occlusion of the stent in the coronary artery. Stent thrombosis is considered as one of the major complications in percutaneous coronary stent implantation. Coronary stent thrombosis has been associated with many risk factors such as diabetes mellitus, stent history after acute coronary syndrome, and low ejection fraction history. Despite increasing treatment modalities and approaches to reduce risk factors, stent thrombosis and post-stent mortality rates are still high. In our study, we aimed to determine the predictor of mortality in patients who underwent stenting at 5-year follow-up. Good identification of risk factors after stent implantation will reduce death and recurrent major cardiac adverse events.

Materials-Methods: The study was planned as a retrospective cohort study. The hospital records of the patients included in the study were reviewed retrospectively. A total of 2446 patients with clinical information were included in the study. Patients who underwent coronary angiography and whose hospital records were complete were included in the study. Patients who did not have follow-up or whose clinical information could not be accessed in the electronic registry system were excluded from the study. Mortality data were extracted from the national health system reporting system. Result: A total of 2446 patients were included in the study. The mean age of the patients included in the study was 71.5±3.5; %33.6% (1624/2446) were male and %66.4% (822/2446) were female. 12.8% of the patients died in the follow-up. When mortality rates were compared, there was no difference between genders ($p>0.05$). When survivors and non-survivor were compared, the age of non-survivor was significantly higher between the two groups (73±9) ($p<0.001$). When the two groups were compared, in the diabetes group death ratio was 37.4%, which was significantly higher. The rate of hypertension was significantly higher in the non-survivor group (88.2%). When the laboratory values were compared, the LDL rate of the non survivor group was significantly higher ($p<0.001$). When HDL rates were compared, HDL rates of survivors were significantly higher ($p<0.001$). When the two groups were compared in terms of stent length, the stent length was significantly longer in the non-survivor group ($p<0.05$). When the stent diameter were compared, no significant difference was observed between the two groups ($p>0.05$).

Conclusion: Our study showed that mortality is high in patients with classical risk factors such as diabetes, hypertension, and hyperlipidemia in cases who underwent coronary stent implantation. While there was a linear relationship between stent length and mortality in our study, stent diameter did not seem to any effect on mortality. Mortality rates can be improved with more intensive medical treatment and close follow-up in patients with multi-vessel intervention, long stent implantation, and classic risk factors.

Keywords: Coronary artery disease, coronary stent, stent thrombosis

Figure 1. Kaplan-Meier Survival Surve

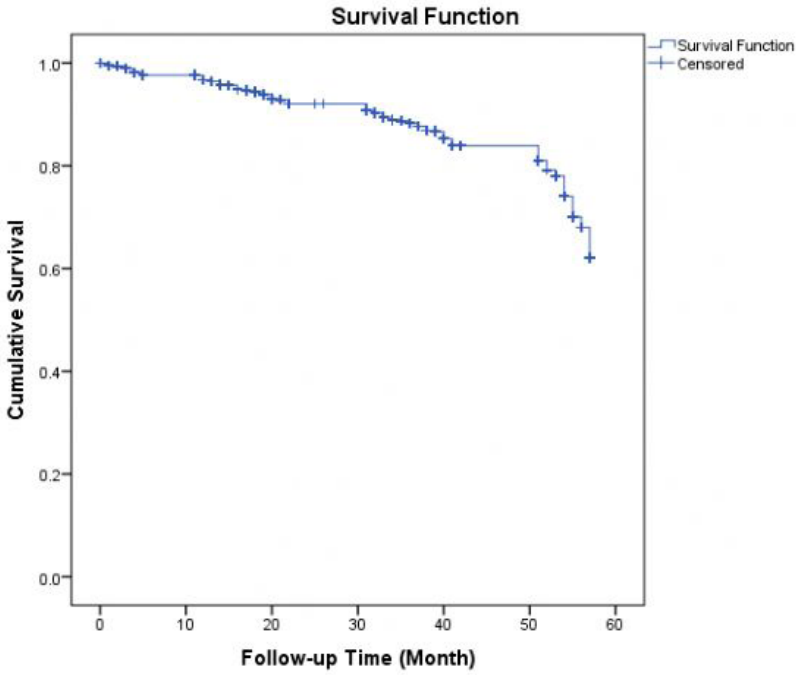

Figure 2. ROC curve of length of stent (mm)

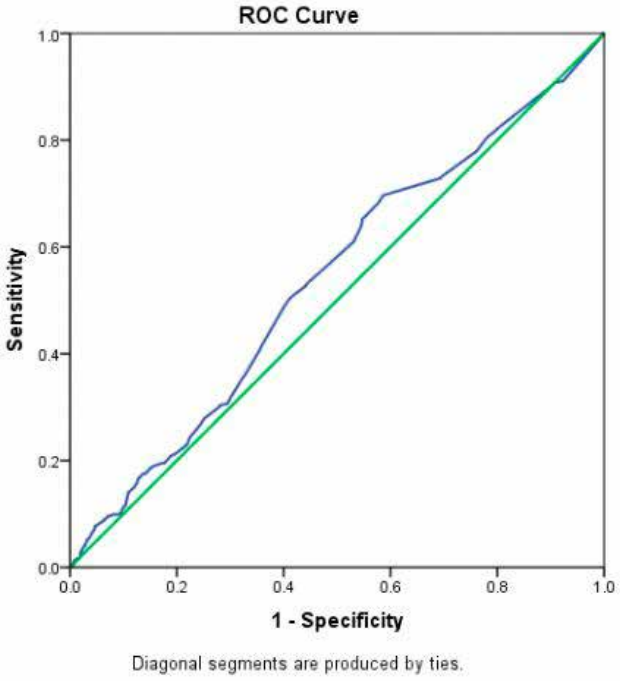

Table 1. Baseline Characteristics

Characteristics	Overall (n=2446)	Survival (n=2133)	Mortality (n=313)	p-value
Age (years)	71.5 (3.5)	62 (9)	73 (9)	<0.001*
Gender (male, %)	1624 (33.6 %)	1431 (67.1 %)	193 (61.7 %)	0.058
Diabetes Mellitus (n, %)	668 (27.3 %)	551 (25.8 %)	117 (37.4 %)	<0.001*
Hypertension (n, %)	1923 (78.6 %)	1647 (77.2 %)	276 (88.2 %)	<0.001*
Smoking (n, %)	1543 (63.1 %)	1394 (65.4 %)	149 (47.6 %)	<0.001*
Family history (n, %)	1539 (62.9 %)	1383 (64.8 %)	156 (49.8 %)	<0.001*
LDL	129 (23.5)	130 (23.5)	123 (23.3)	<0.001*
HDL	40 (5)	40 (4.5)	36 (5.5)	<0.001*
Triglyceride	158 (19.5)	158 (19.5)	155 (18)	<0.001*
Length of stent (mm)	23 (11.5)	23 (11.5)	27 (11)	0.026*
Diameter of stent (mm)	2.65 (0.25 %)	2.65 (0.25)	2.75 (0.13)	0.805
Target vessel (n, %) LAD CX RCA LAD-CX LAD-RCA CX-RCA LAD-CX-RCA GREFT AFTER OTHER ANASTOMOZ	 518 (21.2 %) 183 (7.5 %) 337 (13.8 %) 244 (10 %) 261 (10.7 %) 243 (9.9 %) 500 (20.4 %) 73 (3.0 %) 71 (2.9 %) 16 (0.6 %)	 467 (21. 9 %) 171 (8.0 %) 312 (14.6 %) 214 (10.0 %) 228 (10.7 %) 215 (10.1 %) 387 (18.1 %) 57 (2.7 %) 68 (3.2 %) 14 (0.6 %)	 51 (16.3 %) 12 (3.8 %) 25 (8.0 %) 30 (9.6 %) 33 (10.5 %) 28 (8.9 %) 113 (36.1 %) 16 (5.1 %) 3 (1.0 %) 2 (0.6 %)	<0.001*

OA-25 THE RELATIONSHIP BETWEEN MAGNESIUM / PHOSPHATE RATIO AND PREMATURE VENTRICULAR COMPLEX FREQUENCY IN HEART FAILURE PATIENTS WITH PRESERVED EJECTION FRACTION

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Introduction: Premature ventricular complexes (PVC) is a relatively common electrocardiographic abnormality. The pathogenesis of PVC is generally accepted as idiopathic. Their presence is benign unless there are serious clinical symptoms or structural cardiac abnormalities. In particular, magnesium (Mg) antagonizes calcium on the atrioventricular node, and myocardial Mg deficiency reduces intracellular potassium. This results in less negative resting membrane potential and increased sensitivity to ventricular arrhythmias. In addition, higher serum phosphate (P) levels have been associated with adverse cardiovascular outcomes.

Our aim in this study is to examine the relationship between serum magnesium/phosphatase ratio and PVC frequency in heart failure patients with preserved ejection fraction.

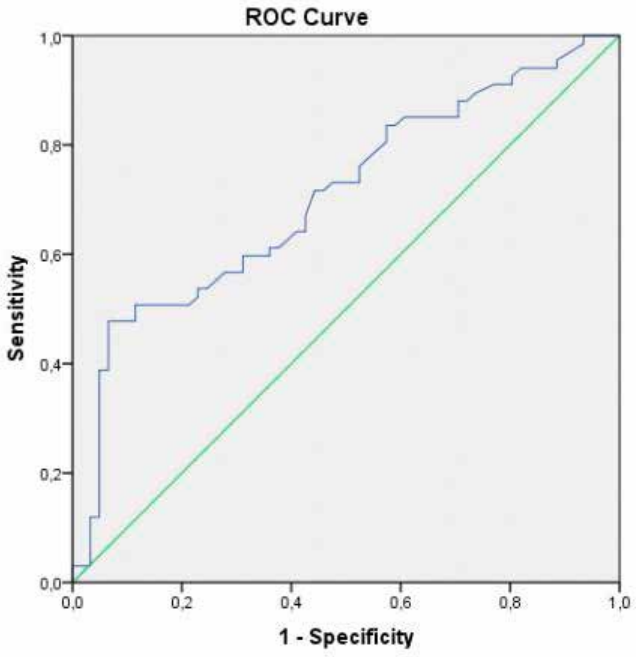
Method: The study was designed as retrospective, observational and single-center. 128 consecutive patients who applied to the cardiology outpatient clinic between January 2020 and December 2020 and underwent 24-hour Holter electrocardiography (ECG) were included. Patients without any arrhythmia findings on the baseline ECG were included in the study. Patients younger than 18 years of age, with severe renal insufficiency, severe hepatic insufficiency, active malignancy, known arrhythmia, in whom optimal echocardiographic examination could not be performed and Holter ECG could not be evaluated optimally were not included. Basal, demographic data, hemogram and biochemical parameters of the patients were recorded. In a study, it was reported that the risk of sudden cardiac death increased in patients with a record of >153 PVCs or approximately >6 PVCs/hour in 24 hours. In the 24-hour Holter ECG recording, patients with a total PVC count of >150 and <=150 were divided into two groups.

Results: In the group with frequent PVC; coronary artery disease (p=0.018), palpitation (p=0.003) and hyperthyroidism (p=0.005) were found significantly more. Between the two groups; A significant difference was found in terms of hemoglobin (p=0.007), HDL (p=0.047), calcium (p=0.011) and magnesium/phosphate (p<0.001) ratios. In addition, ROC analysis was used to evaluate the power of the Mg / P ratio in predicting the frequency of PVC. Mg/P >0.598 cut-off value, with 70% sensitivity and 65% specificity (ROC area under curve (AUC): 0.704, 95%CI: 0.615-0.793, p<0.001), is associated with the frequency of PVC.

Conclusion: We found that high serum magnesium level and low serum phosphate levels are associated with the frequency of PVC. The use of such laboratory parameters in clinical practice may be beneficial due to their low cost and easy accessibility. In order to determine how predictive this ratio is in determining arrhythmia burden, multicenter studies with larger participation are needed.

Keywords: Magnesium / Phosphate Ratio, Premature ventricular complexes, Holter

ROC Analysis Between Magnesium/Phosphate Ratio and PVC Frequency Relationship



Diagonal segments are produced by ties.

Baseline, Demographic, Hemogram, Biochemical and Echocardiographic Data

	Group-I (n=61)	Group-II (n=67)	Total (n=128)	p value
Age, (years) mean±std	56.5 (±9.7)	58.1 (±9.8)	57.35 (±9.75)	0.343
Female, sex, n (%)	31 (50.8)	37 (55.2)	68 (53.1)	0.618
SBP, mean±std	127.18 (±18.25)	130.82 (±16.69)	129.09 (±17.47)	0.241
DBP, mean±std	70.39 (±11.24)	72.43 (±11.77)	71.46 (±11.52)	0.319
Chest Pain, n (%)	31 (50.8)	36 (53.7)	67 (52.3)	0.742
Dispnea, n (%)	16 (26.2)	18 (26.9)	34 (26.6)	0.935
Palpitation, n (%)	13 (21.3)	31 (46.3)	44 (34.4)	0.003
Dizziness, n (%)	2 (3.3)	6 (9.0)	8 (6.3)	0.185
Heart Rate, (minute)	73.3 (±11.7)	74.2 (±14.9)	73.76 (±13.43)	0.721
HT, n (%)	30 (49.2)	34 (50.7)	64 (50.0)	0.860
DM, n (%)	23 (37.7)	22 (32.8)	45 (35.2)	0.564
Stroke, n(%)	8 (13.1)	6 (9.0)	14 (10.9)	0.451
CAD, n (%)	21 (34.4)	37 (55.2)	58 (45.3)	0.018
Hyperlipidemia, n (%)	36 (59.0)	42 (62.7)	78 (60.9)	0.671
Hyperthyroidism, n (%)	2 (3.3)	13 (19.4)	15 (11.7)	0.005
WBC, (× 109 /L)	8.09 (±2.07)	8.54 (±2.20)	8.32 (±2.15)	0.243
Hemoglobin, (g/dL)	13.74 (±1.27)	12.90 (±2.06)	13.30 (±1.77)	0.007
Platelet, (x10^3/µL)	251.52 (±41.10)	249.88 (±62.53)	250.66 (±53.20)	0.862
Urea, (mg/dL)	33.33 (±7.50)	32.21 (±10.95)	32.74 (±9.44)	0.508
Uric Acid, (mg/dL)	5.37 (±1.02)	5.36 (±1.00)	5.37 (±1.01)	0.965
Creatinine, (mg/dL)	0.90 (±0.20)	1.04 (±0.80)	0.97 (±0.60)	0.190
Nt-proBNP	604.74 (±594.80)	793.33 (±629.48)	703.46 (±618.07)	0.085
Total Cholesterol, (mg/dL)	197.08 (±60.27)	179.18 (±48.05)	187.71 (±54.74)	0.064
Triglyceride, (mg/dL)	156.52 (±73.66)	167.34 (±130.49)	162.18 (±106.97)	0.570
HDL, (mg/dL)	44.46 (±11.37)	40.46 (±11.19)	42.37 (±11.41)	0.047
LDL, (mg/dL)	120.16 (±58.88)	116.62 (±90.38)	118.31 (±76.72)	0.795
TSH, (µIU/mL)	2.12 (±1.38)	1.88 (±1.26)	2.00 (±1.32)	0.295
T4, (ng/dL)	1.44 (±0.42)	1.51 (±0.54)	1.48 (±0.48)	0.405
Sodium, (mEq/L)	137.64 (±13.03)	139.21 (±2.90)	138.46 (±9.23)	0.338
Potassium, (mmol/L)	4.49 (±0.40)	4.50 (±0.48)	4.50 (±0.44)	0.812
Calcium, (mg/dL)	9.10 (±0.72)	9.41 (±0.60)	9.26 (±0.67)	0.011
Magnesium, (mg/dL)	2.09 (±0.27)	1.95 (±0.32)	2.02 (±0.31)	0.007
Phosphate, (mg/dL)	3.53 (±0.85)	4.15 (±1.22)	3.85 (±1.10)	0.001
Mg/P	0.62 (±0.14)	0.51 (±0.16)	0.56 (±0.16)	<0.001
LVEF,%	58.0 (±5.1)	57.9 (±4.3)	57.96 (±4.7)	0.869

OA-26 CHARACTERISTICS, CLINICAL FEATURES AND OUTCOMES OF SYRIAN REFUGEES WITH ACUTE HEART FAILURE

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Objective: Since 2011, the conflict in Syria has led to over five million refugees, and our country hosts the highest number of Syrian refugees in the world. It has been established that cardiovascular disease is a major issue for Syrian refugee patients, and classic cardiovascular risk factors (i.e. hypertension, diabetes mellitus) and coronary artery disease are common in this specific population. Because of paucity of information on heart failure, we aimed to obtain data on clinical features and outcomes of Syrian patients with acute heart failure.

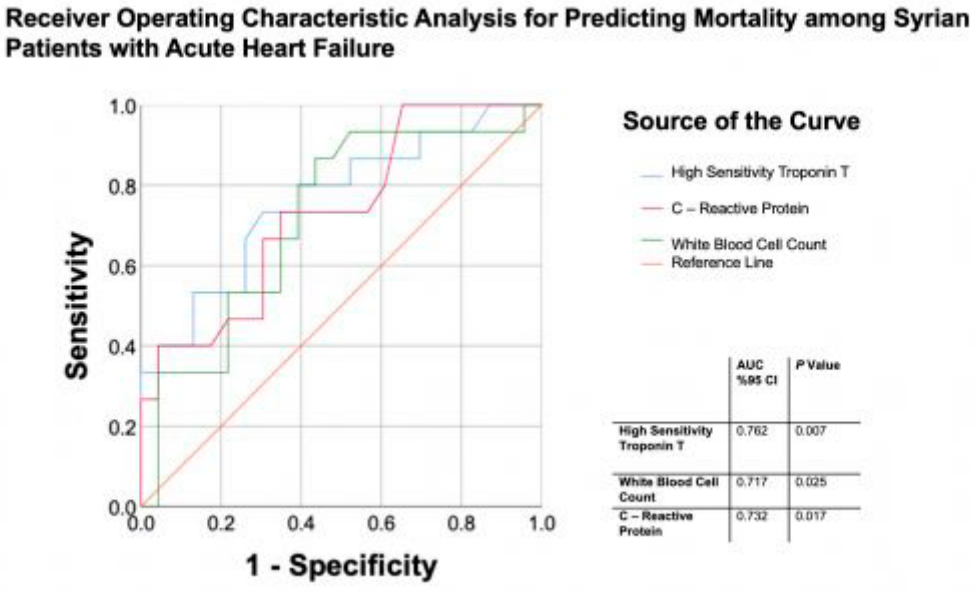
Methods: In this retrospective, single center cohort study, we included 283 patients who were admitted to coronary care unit with acute heart failure. We divided the study population into 2 groups: Turkish patients (n = 243) and Syrian patients (n =40). Clinical, electrocardiographic, echocardiographic and laboratory data were collected and analyzed. Clinical course, complications and in-hospital mortality were assessed.

Results: Turkish patients were older than Syrian patients (69 [13] vs 63 [13], p = 0.015). The prevalence of male sex, hypertension, diabetes mellitus, coronary artery disease and chronic kidney disease were similar in both groups. Acute coronary syndrome (ACS) as a precipitating factor was more common in Syrian patients than in Turkish patients (10 [29%] vs 31[14%], p = 0.021). In contrary, arrhythmia as a precipitating factor was more common in Turkish patients, than in latter group (44 [19.8%] vs 2[6%], p = 0.046). Left ventricular ejection fraction (LVEF) was lower in Syrian patients in comparison to Turkish patients (32 % [14] vs 37 % [14], p = 0.033). Inotropic agents were initiated more frequently in Syrian patients than in Turkish patients (24 [60%] vs 84 [35%], p = 0.003). Cardiogenic shock and mortality were more prevalent in Syrian patients than in former group (17 [43 %] vs 57 [23.6 %], p = 0.012; 15 [38%] vs 55 [22.7%], p = 0.045; respectively). In a subgroup analysis of 40 Syrian patients; baseline white blood cell count, high sensitivity troponin T and C-reactive protein were higher in non-survivors compared to survivors (10960/μL [8820 – 17970] vs 7840/μL [5225 – 10630], p = 0.013; 312 pg/mL [70 – 6129] vs 66 pg/mL [22 – 132], p = 0.006; 27 mg/dL [7 – 199] vs 9 mg/dL [2 – 36]; p = 0.016; respectively). Receiver operating characteristic analysis was performed for predicting mortality in Syrian patients. Based on a 95% confidence interval, the areas under the curve for white blood cell count, high sensitivity troponin T and C-reactive protein were 0.72, 0.76 and 0.73 (p = 0.025; p = 0.007; p = 0.017, respectively).

Conclusion: This study shows that acute heart failure in Syrian patients was precipitated more frequently with acute coronary syndrome and was associated with lower LVEF, cardiogenic shock and mortality.

Keywords: acute coronary syndrome, acute heart failure, cardiogenic shock, mortality, Syrian refugees

Receiver Operating Characteristic Analysis for Predicting Mortality among Syrian Patients with Acute Heart Failure



Receiver Operating Characteristic Analysis for Predicting Mortality among Syrian Patients with Acute Heart Failure

Demographics, comorbidities, electrocardiographic and echocardiographic findings, treatment, complications and clinical outcomes of the study population

	Turkish Patients (n = 243)	Syrian Patients (n = 40)	P value
Age, years	69 (13)	63 (13)	0.015*
Male, n (%)	125 (51)	23 (58)	0.601
Hypertension, n (%)	128 (54)	16 (41)	0.133
Diabetes mellitus, n (%)	85 (35.9)	13 (33)	0.759
Coronary artery disease, n (%)	151 (64.9)	29 (73)	0.165
Chronic kidney disease, n (%)	118 (48.8)	12 (33)	0.056
Hospital stay, days	10 [6 – 16]	8 [4 – 22]	0.851
Precipitating factor, n (%)			
Acute coronary syndrome	31 (14)	10 (29)	0.021*
Hypertension	8 (3.6)	1 (3)	0.841
Arrhythmia	44 (19.8)	2 (6)	0.046*
Infection	16 (7.2)	3 (9)	0.764
Non-identifiable	111 (50)	16 (47)	0.764
Vital signs			
Mean arterial pressure, mmHg	90 (18)	77(17)	<0.001*
Pulse pressure, mmHg	49 (19)	42 (15)	0.029*
Heart rate, bpm	93 (26)	93 (19)	0.900
Fingertip oxygen saturation, %	95 (4)	94 (5)	0.054
Electrocardiographic findings, n (%)			
Atrial fibrillation	85 (37.8)	14 (36)	0.739
Left bundle branch block	17 (7.9)	2 (8)	0.549
ST – segment elevation	11 (5.1)	5 (13)	0.057
ST – segment depression	8 (3.7)	0 (0)	0.230
Echocardiographic parameters			
LVEF, %	37 (14)	32 (14)	0.033*
Severe valvular disease, n (%)	52 (22.6)	9 (23)	0.949
Right ventricular systolic dysfunction, n (%)	49 (29)	8 (28)	0.877
Estimated pulmonary artery systolic pressure, mmHg	50 (12)	48 (11)	0.763
Treatment / Intervention, n (%)			
Beta-blockers	196 (81.3)	31 (78)	0.569
RAAS inhibitors	133 (56.2)	14 (35)	0.044*
Loop diuretics	221 (91.7)	34 (85)	0.176
MRA	114 (47.3)	18 (45)	0.787
Ivabradine	15 (6.2)	3 (8)	0.760
Digoxin	44 (18.3)	12 (30)	0.085
Nitroglycerine	34 (14.1)	5 (13)	0.785
Anticoagulants	172 (71.4)	30 (75)	0.636
Antibiotics	136 (56.4)	22 (55)	0.866
Inotropic agents	84 (35)	24 (60)	0.003*
Non-invasive mechanical ventilation	48 (20)	5 (13)	0.289
Percutaneous coronary intervention	29 (12)	7 (18)	0.322
Complications and clinical outcomes, n (%)			
Invasive mechanical ventilation	56 (23)	13 (33)	0.400
Infection	102 (41.8)	17 (42.5)	0.934
Acute kidney injury / worsening renal function	183 (75.3)	25 (63)	0.089
Ultrafiltration / haemodialysis	23 (9.4)	7 (18)	0.124
Ventricular arrhythmia	16 (6.6)	6 (15)	0.168
Cardiogenic shock	57 (23.6)	17 (43)	0.012*
Exitus	55 (22.7)	15 (38)	0.045*

Continous values are expressed as mean (standard deviation) or median [interquartile range]. MRA = mineralocorticoid receptor antagonist; RAAS = renin-angiotensin-aldosterone system

OA-27 THE CORRELATION BETWEEN LEFT ATRIAL PHASIC FUNCTION AND N-TERMINAL PRO-BNP LEVELS IN HEART FAILURE WITH A PRESERVED EJECTION FRACTION

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Background: Left atrial (LA) dysfunction is known to be associated with LV diastolic dysfunction in heart failure (HF) with preserved ejection fraction (HFpEF). The N-terminal pro-B-type natriuretic peptide (NT-pro-BNP) hormone is found to be increased in HF secondary to either systolic or diastolic dysfunction.

Purpose: This study aimed to examine the relationship between the LA phasic function and NT-pro-BNP levels in patients with HFpEF.

Methods: This single-center, prospective study included 126 patients who had a diagnosis of HFpEF according to ESC HF guidelines. LA phasic function was determined by volumetric analyses. LA volumes were obtained in three different parts of the cardiac cycle: maximal LA volume (LAVmax) was calculated just before mitral valve opening, pre-A (pre-atrial contraction) LA volume (LAVpre-A) was evaluated at the beginning of atrial systole (peak of the P wave on ECG), and minimal LA volume(LAVmin) was assessed at mitral valve closure. LA volumes were determined according to the biplane method in four- and two-chamber views, and all the values were indexed for BSA (LAVImax, LAVIpre-A, LAVImin). The total emptying volume was calculated as the difference between the maximum and minimum LA volume; passive emptying volume was computed as the difference between maximum and pre-A LA volume; and active emptying volume was calculated as the difference between pre-A and minimum LA volume. The LA expansion index was calculated as [(LAV max– LAVmin)/LAVmin]x100. Correlation analysis with Pearson correlation coefficient calculation was used to determine the relationships between LA phasic function and NT-pro-BNP.

Results: We included 126 patients with HFpEF. The mean age was 69.6±11.4 years and most of them were women (N=87; 69%). The median NT-pro-BNP value was 1113(509.5-3233) pg/ mL, mean Left ventricular ejection fraction (LVEF) was 60.1 % ±5.0. In all, 108(85.7%) patients had LA dilatation. In terms of LA volumetric parameters; mean LAV max was 85.9±30.1, mean LAVmin was 47.4±24.2, LA Ejection Fraction (LAEF) was 46.7 % ±14.5. The results of Pearson's correlation analysis revealed that NT-pro-BNP showed positive correlations with LAVImax, LAVImin, LAVIpre-A, ($r = 0.322, 0.334, 0.313, p < 0.05$) and negative correlations with LA expansion index ($r= -0.281, p<0.05$) There is no correlation between NTproBNP levels and LA total emptying volume, passive empyting volume, active empyting volume, LVEF, systolic blood pressure and age.

Conclusion: The present study showed that in patients with HFpEF, NT-pro-BNP correlated with LA phasic functions including LAVImax, LAVImin and LAVIpre-A which tends to deteriorate more with increasing NT-pro-BNP levels.

Keywords: Heart failure with preserved ejection fraction, left atrial funciton, NT-proBNP

Table 1

LA parameters	NT-proBNP	Creatinine	Haemeglobin	Age
LAEF	-0.259(0.004)	-0.032(ns)	-0.052(ns)	0.380(0.000)
LAVmax	-0.275(0.002)	0.063(ns)	-0.129(ns)	0.114(ns)
LAVpreA	0.278(0.007)	0.119(ns)	-0.148(ns)	0.064(ns)
LAVmin	0.301(0.001)	0.048(ns)	-0.043(ns)	0.246(ns)
LAVImax	0.322(0.00)	0.130(ns)	-0.181(ns)	0.159(ns)
LAVIpreA	0.313(0.002)	0.206(0.048)	-0.149(ns)	0.096(ns)
LAVImin	0.334(0.00)	0.092(ns)	-0.096(ns)	0.273(0.002)
LASr	-0.349(0.00)	-0.066(ns)	-0.001(ns)	-0.395(0.000)
LASt	0.282(0.002)	0.085(ns)	0.002(ns)	0.258(0.004)
TPLS	-0.210(0.021)	-0.080(ns)	0.139(ns)	-0.158(ns)
LA area	0.250(0.005)	0.065(ns)	-0.017(ns)	0.242(0.007)
LA expansion index	-0.281(0.001)	-0.006(ns)	-0.056(ns)	-0.362(ns)
LA total emptying volume	0.079(ns)	0.051(ns)	-0.199(0.026)	-0.166(ns)
LA passive empyting volume	0.013(ns)	-0.089(ns)	-0.048(ns)	-0.118(ns)
LA active empyting volume	-0.052(ns)	0.054(ns)	-0.143(ns)	-0.208(0.04)
LV GLS	-0.305(0.001)	-0.126(ns)	-0.065(ns)	-0.111(ns)

The correlation between left atrial paramters and laboratory values and age Abbreviations: LA: left atrium, LAEF: left atrial ejection fraction, LAV: Left atrial volume, LAVI: left atrial volume index, LV-GLS: left ventricular global longitudinal strain, LASr: left atrial reservoir strain, LASt: left atrial stiffness index, LVEF: left ventricular ejection fraction, TPLS: time to peak longitudinal strain

OA-28 THE RELATIONSHIP BETWEEN THE PRESENCE OF CARDIOHEPATIC SYNDROME AND MORTALITY IN PATIENTS WITH LOW EJECTION FRACTION HEART FAILURE

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INTRODUCTION: The relationship between chronic heart failure and liver damage is well defined.

Elevated bilirubin is associated with adverse cardiovascular events, such as mortality, in HF patients. In another study, high ALP values were associated with 180-day mortality in patients with acute decompensated heart failure.

In this study, we evaluated the effect of the presence of CHS on mortality in heart failure patients with low EF.

METHODS: Patients who applied to the heart failure outpatient clinic of our hospital between 2012 and 2018 were analyzed retrospectively.

ALP, GGT, bilirubin and other biochemical parameters, echocardiographic findings and medical treatments of the patients at the time of first admission were recorded.

As of January 2022, it was investigated whether the patients had retrospective mortality.

Patients with moderate and preserved ejection fraction were excluded from 718 patients. Patients with acute heart failure and hospitalization in the last 1 month were not included. 469 patients were included in the study after excluding patients with missing data in the hospital system.

The elevation of 2 of 3 laboratory cholestasis parameters (ALP, GGT, bilirubin) was defined as cardiohepatic syndrome (CHS).

RESULTS: The incidence of DM, HT and CRF was higher in the CHS group ($p<0.001$). Medical treatments, NYHA classes at admission, and AF rate were similar in both groups. ALP, GGT and total bilirubin levels were higher in the CHS group. ($p<0.001$). Mortality was higher in the CHS group. ($p<0.001$).

Left ventricular EF was lower in the CHS group (23.7(7.1) vs 26.9(7.5), $p<0.001$). Tapse (16.8(4.3) vs 19.1(4.8)) and RV S' velocity (9.5(2.6) vs 10.7(3)) were lower in the CHS group. ($p<0.01$) The frequency of advanced tricuspid regurgitation(22(21) vs 28(7.7)) and PABs(42.8(28.5) vs 33.6(20.2)) were higher in the CHS group.($p<0.001$)(Table 1)

Considering the long-term mortality results, low LVEF and Tapse and presence of CHS are seen as mortality predictors.(Table 2)

DISCUSSION: In this study, we evaluated the effect of the presence of CHS on mortality in heart failure patients with low EF. Presence of CHS was found to be significant in predicting long-term mortality.

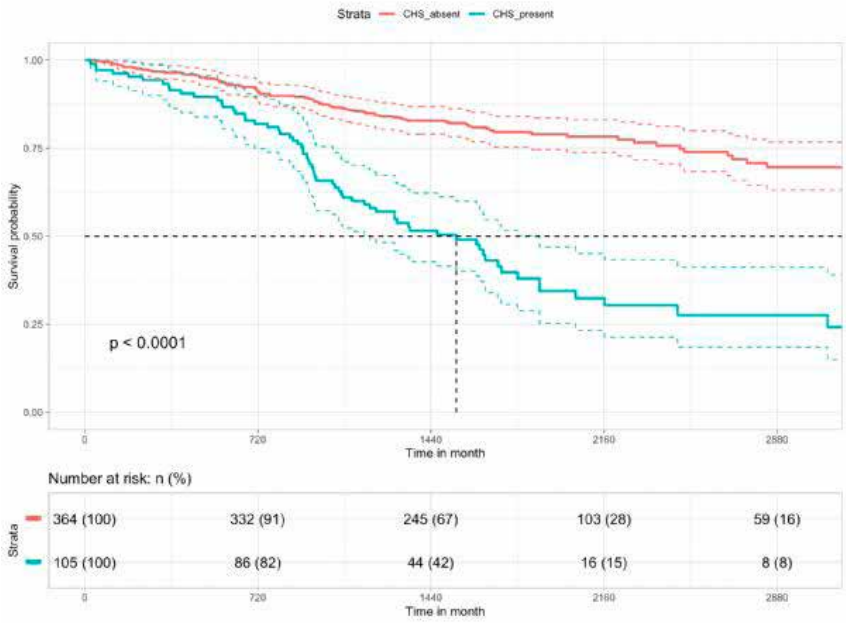
It is known that patients with heart failure are prone to extracardiac organ dysfunction due to hypoperfusion and congestion. Right heart failure can affect many organ functions, including renal, hepatic and gastrointestinal function.

The presence of CHS was found to be associated with poor prognosis in patients who underwent tricuspid transcatheter edge-to-edge valve repair.

According to the results of our study, high ALP, GGT and total bilirubin values at the time of admission predict long-term mortality. However, considering the partial effects, a high single parameter is also associated with an increase in mortality. In addition, low EF, ischemic heart disease, advanced tricuspid regurgitation and right ventricular failure are other factors that increase mortality.

Keywords: Heart Failure, Cardioheptaic Syndrome, ALP, GGT, Bilirubin

Figure 1



Kaplan-meier plot demonstrated CHS presence associated increased mortality for long term mortality.

OA-29 TAPSE/PASP RATIO MAY PREDICT POOR PROGNOSIS FOLLOWING ATRIAL FLOW REGULATOR IMPLANTATION IN PATIENTS WITH HEART FAILURE

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Objective. Interatrial shunt therapy emerges as a promising option in the treatment of patients with heart failure. The response of patients to treatment is different. While some patients benefit, others may experience worsening. Right heart function and the status of the pulmonary vascular bed are important to select appropriate patient.

TAPSE/PASP (tricuspid annular plane systolic excursion systolic pulmonary arterial pressure) is significantly associated with pulmonary hemodynamics. The aim of the study is to determine the relevance of TAPSE/SPAP ratio to predict poor prognosis following atrial flow regulator (AFR) device implantation in patients with heart failure.

Methods. Thirty-four patients followed in our center within the scope of the AFR PRELIEVE study were included in the study. Heart failure patients with reduced, mildly reduced and preserved ejection fraction without significant pulmonary hypertension (estimated systolic pulmonary artery pressure <70 mmHg) and right heart failure (tricuspid annular plane systolic excursion >17 mm, right ventricular S' velocity >10 mm) were included in the study. Following screening, the patients underwent a 6-minute walk test, biochemical analysis of blood, transthoracic echocardiography, and right heart catheterization. Cardiac events were defined as combined all-cause mortality or hospitalization due to worsening heart failure. At the end of the twelfth month, the baseline patients' characteristics with or without adverse cardiac events were compared.

Results. Cardiac events were observed in 6 of the 34 patients (Table 1). One of these events was cardiac mortality, while the others were due to rehospitalization due to worsening heart failure. According to TAPSE/sPAB ratios, patients were examined in 4 quarters (Figure 1). While a cardiac event was observed in 44% of the patients in the first quarter, no cardiac event was observed in the fourth quarter. TAPSE/sPAB <=0.36 showed 93% sensitivity and 67% specificity for predicting cardiac event (AUC=0.827, p=0.01, CI 95% [0.64-0.98]) (Figure 2).

Conclusion. TAPSE to SPAP ratio can be a noninvasive predictor of poor prognosis in patients with heart failure who were a candidate for interatrial shunt implantation. Our results need to be replicated by larger studies.

Keywords: diuretics, heart failure, interatrial shunt, risk predictor

The comparison of demographics, laboratory and echocardiographic features of study population according to TAPSE to sPAP ratio.

	Quartile 1 (≤0.32)	Quartile 2 (0.33-0.45)	Quartile 3 (0.46-0.86)	Quartile 4 (0.87≤)	P value
Cardiac events, n (%)	4 (44)	1 (11)	1 (13)	0 (0)	**0.01**
Age, years, mean ± SD	74 ± 4	67 ± 7	67 ± 9	69 ± 7	0.20
BMI, kg/m^2, mean ± SD	26.9 ± 4.8	26.5 ± 3.6	28.3 ± 4.3	27.2 ± 3.6	0.80
6MWD, m, mean ± SD	153 ± 88	208 ± 125	144 ± 95	189 ± 93	0.55
KCCQ, mean ± SD	60 ± 20	56 ± 18	60 ± 17	68 ± 24	0.68
Sr Cr, mg/dl, mean ± SD	0.97± 0.24	1.11 ± 0.29	1.16 ± 0.37	1.13 ± 0.33	0.58
Hematocrit, mean ± SD	37 ± 5	43 ± 3	41 ± 6	41 ± 4	0.06
RV EDD, mm, mean ± SD	37.5 ± 7.0	40.3 ± 5.1	31.3 ± 11.6	39.7 ± 4.4	0.06

6MWD- 6 minutes walking distance; BMI- body mass index; KCCQ- Kansas City Cardiomyopathy Questionnaire; RV EDD- right ventricular end-diastolic dimension; SD- standard deviation; Sr Cr- serum creatinine

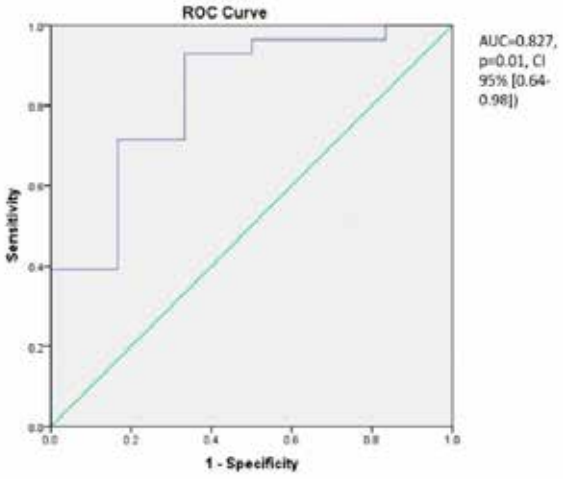
6MWD- 6 minutes walking distance; BMI- body mass index; KCCQ- Kansas City Cardiomyopathy Questionnaire; RV EDD- right ventricular end-diastolic dimension; SD- standard deviation; Sr Cr- serum creatinine

Baseline characteristics of patients with and without developing cardiac events

Parameters	Cardiac events (-) N=28	Cardiac events (+) N=6	P value
Age, years, mean ± SD	69.11 ± 1.51	70.00 ± 1.73	0.79
BMI, mean ± SD	27.45 ± 0.80	25.43 ± 0.75	0.27
HFrEF, n (%)	20 (71.4%)	4 (66.7%)	
HFpEF, n (%)	8 (28.6%)	2 (33.3%)	
KCCQ-OSS, median (IQR)	60.16 (50.99-79.91)	48.57 (35.03-64.71)	0.15
6MWD, m, median (IQR)	145 (100-288)	200 (65 – 228)	0.87
Systolic blood pressure, mmHg, median (IQR)	119.5 (110.0-139.5)	111.5 (106.0-128.8)	0.33
MAGGIC score, median (IQR)	23 (21-27)	29 (20-33)	0.1
Predicted mortality, %, median (IQR)	13.4 (11.1-18.7)	22.0 (10.2-30.5)	0.052
LV EF, %, mean ± SD	36.00 ± 2.23	30.83 ± 5.69	0.35
TAPSE, cm, mean ± SD	2.32 ± 0.12	1.88 ± 0.22	0.12
Mean RA pressure, mmHg, median (IQR)	9.0 (5.0-12.8)	13.5 (7.5 – 16.5)	0.17
Pulmonary artery SpO2, %, mean ± SD	67.43 ± 1.31	66.38 ± 3.73	0.75
Serum creatinine	0.94 (0.87-1.32)	1.02 (0.93-1.32)	0.43
Hematocrit	41.87 (39.52-44.06)	36.20 (29.75-43.84)	0.13
BNP	174 (73.7-330)	1446 (362.95-2738.10)	0.01

6MWD- 6-minute walking distance; BMI- body mass index; BNP- brain natriuretic peptide; HFpEF- heart failure with preserved ejection fraction; HFrEF- heart failure with reduced ejection fraction; IQR- interquartile range; KCCQ-OSS- Kansas City Cardiomyopathy Questionnaire Overall Summary Score; LVEF- left ventricle ejection fraction; RA- right atrium; PAWP- pulmonary artery wedge pressure; SD- standard deviation; TAPSE- tricuspid annular plane systolic motion;

ROC characteristic showing the sensitivity and specificity of TAPSE/PASP ratio for predicting of poor prognosis following AFR implantation



OA-30 CONVINIENT NOVEL METHOD FOR DIAGNOSING DIASTOLIC DYSFUNCTION: ELECTROCARDIOGRAPHIC DIASTOLIC INDEX

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Background: Left ventricular diastolic dysfunction (LVDD) is the primary pathophysiology in patients with preserved ejection heart failure. Hypertension result in myocardial structural changes and accelerate the progression to LVDD. Electrocardiographic diastolic index (EDI) calculated from electrocardiogram parameters can provide information about the relationship between left ventricular hypertrophy and the presence of LVDD. We aimed to investigate the predictor of EDI in detecting LVDD in patients followed up with hypertension.

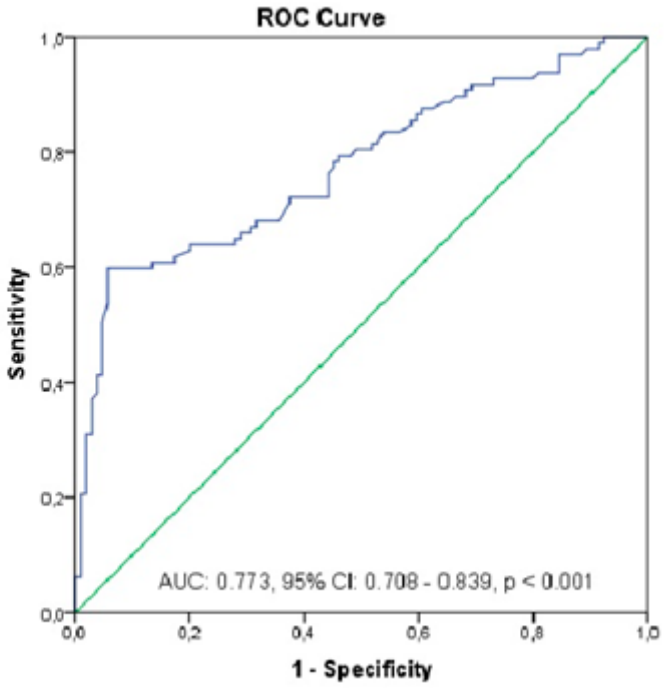
Methods: This study included 202 consecutive patients with hypertension between January 2022 and March 2022. The patients were divided into groups with and without LVDD. The EDI is formulated as [aVL R amplitude × (V1S amplitude + V5R amplitude)/PWLI amplitude]. The prediction value of the EDI for LVDD was evaluated by ROC curve analysis. Univariate and multivariate logistic regression analyses were used to evaluate the independent predictors of LVDD. Two multivariable models were used (model I: EDI as a continuous variable and model II: EDI as a categorical variable).

Results: The patients were divided into two groups according to the presence of LVDD (105 patients without LVDD, group 1; 97 patients with LVDD, group 2). The mean age of the study population was 50 ± 14 years, and 57.4% of the patients were female. The EDI value of the patients included in the study was 8.5 ± 7.3. EDI value in group 2 was significantly higher than in group 1 ($p < 0.005$). The area under the curve of EDI in predicting LVDD was found to be 0.773 (95% CI = 0.708 - 0.839; $p < 0.001$). When the cut-off value of the EDI is greater than 7.4 mV, it predicts LVDD with 63.6% sensitivity and 79.8% specificity. In univariate logistic regression analysis, presence of LVDD was associated with EDI [OR=1.248, 95% confidence interval (CI)=1.159 - 1.345, $p < 0.001$]. Two different multivariate regression models were constructed to evaluate EDI as both a continuous variable and a categorical variable. EDI was determined as an independent predictor of LVDD in both models

Conclusions: The EDI is an essential assessment tool in predicting DD in patients who are followed up with hypertension, as it is a cheap, accessible, and easy-to-use formula.

Keywords: diastolic dysfunction, electrocardiographic diastolic index, hypertension

Figure 1. ROC Curve



A receiver operating curve (ROC) analysis showed that the optimal cut-off value of the electrocardiographic diastolic index (EDI) to predict diastolic dysfunction (DD) was 7.4 mV with 63.6% sensitivity and 79.8% specificity (area under the curve [AUC] 0.773; 95% confidence interval [CI] 0.708 – 0.839; p < 0.001).

Baseline clinical characteristics, echocardiographic and electrocardiographic findings of all patients

	All Population (n = 202)	LVDD (-) (n = 105)	LVDD (+) (n = 97)	P value
Age, years	50 ± 14	47 ± 14	53 ± 13	0.019
Male, n (%)	86 (42.6)	35 (33.3)	51 (52.6)	0.007
Female, n (%)	116 (57.4)	70 (66.7)	46 (47.4)	0.007
Diabetes mellitus, n (%)	33 (16.3)	11 (10.5)	22 (22.7)	0.023
Smoking, n (%)	93 (46)	44 (41.9)	49 (50.5)	0.259
BMI, kg/m2	30 ± 10	28.5 ± 11	32 ± 9	0.005
LVEDD, mm	46 ± 3	46 ± 3	46 ± 3	0.124
LVESD, mm	29 ± 4	28 ± 3	29 ± 4	0.051
IVST, mm	1.0 ± 0.2	1.0 ± 0.1	1.1 ± 0.2	< 0.001
PWT, mm	1.0 ± 0.1	1.0 ± 0.1	1.0 ± 0.11	0.002
LVEF, %	61 ± 5	62 ± 5	60 ± 3.5	0.032
LA, mm	35 ± 3	35 ± 4	36 ± 4	0.031
E, cm/sec	70 ± 10	80 ± 10	70 ± 10	< 0.001
A, cm/sec	60 ± 20	60 ± 10	80 ± 30	< 0.001
E/A ratio	1.2 ± 0.5	1.4 ± 0.3	0.9 ± 0.5	< 0.001
e'Lateral, cm/sec	10 ± 4	12 ± 2	8 ± 2	< 0.001
D1 P wave amplitude,mV	0.1 ± 0.06	0.1 ± 0.04	0.1 ± 0.05	0.181
aVL R amplitude, mV	0.4 ± 0.3	0.3 ± 0.3	0.5 ± 0.3	< 0.001
V1S amplitude,mV	0.7 ± 0.3	0.7 ± 0.4	0.7 ± 0.5	0.043
V5R amplitude,mV	1.0 ± 0.6	1.0 ± 0.5	1.1 ± 0.7	0.093
V1S amplitude+V5R amplitude, mV	1.7 ± 0.7	1.7 ± 0.7	2.0 ± 0.9	0.005
EDI	8.5 ± 7.3	5.2 ± 3.7	10.6 ± 8.5	< 0.005

BMI: Body mass index, LVEDD: Left ventricular end-diastolic dimension, LVESD: Left ventricular end-systolic dimension, IVST: Interventricular septum thickness, PWT: Posterior wall thickness, LVEF: Left ventricular ejection fraction, LA: Left atrial, EDI: Electrocardiographic Diastolic Index.

OA-31 THE RELATIONSHIP BETWEEN TAPSE/PASP RATIO AND PROGNOSIS İN PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION

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Objective: Pulmonary arterial hypertension (PAH) is a chronic disease with high morbidity and mortality. The prognosis of severe pulmonary hypertension can be predicted by various techniques, measured invasively or non-invasively. In this study, the effect of Tricuspid annular plane systolic excursion/systolic pulmonary artery pressure (TAPSE/SPAP) ratio, measured by echocardiography as an alternative to invasive techniques, on the prognosis was investigated.

Methods: Our study included 42 patients who were followed up in our center with the diagnosis of PAH. The patients were followed up for an average of 19 months. Echocardiography reports of the patients at the time of first admission were taken as a basis.

Results: After the first admission, 16 (38%) of the patients died within 24 months. TAPSE/SPAP ratio was found to be significantly lower in patients who died (0.17±0.02 vs 0.33±0.05, p<001). The basic clinical characteristics of the patients are given in Table-1. In the correlation analysis, the TAPSE/SPAP ratio shows a significant positive correlation with the 6-minute walk distance (6MWD) and total protein. In addition, a significant negative correlation was found between TAPSE/SPAP ratio and right atrium(RA) area, creatinine, left atrial(LA) diameter, inferior vena cava(IVC), right ventricular(RV) diameter and CRP. According to univariate analysis; TAPSE/SPAP, total protein, 6MWD, RA area, creatinine, CRP, LA diameter, IVC diameter and RV diameter levels at admission were significantly associated with increased risk of death. In Roc analysis, the TAPSE/SPAP cut-off value was determined as 0.30 mm/mmHg (sensitivity 91%, specificity 77.5%). Patients with TAPSE/SPAP <0.30 mm/mmHg had a significantly worse prognosis.

Conclusion: The TAPSE/SPAP ratio is a noninvasive and easily performed measurement determined by bedside echocardiography. It seems that TAPSE/SPAP ratio be significantly associated with mortality in patients with pulmonary arterial hypertension. However, these findings need to be supported by large prospective randomized studies.

Keywords: Pulmonary hypertension, TAPSE/PASP, prognosis

1

Basic clinical characteristics	Patients who survived (n:26)	Patients who died (n:16)	P value
Age	49±7	58±3	<0,001
Sex(female)(%)	30(%71)	11(%68)	0,763
Atrial fibrillation (%)	8(%30)	7(%43)	0,394
6 MWD(m)	284±11	164±8	<0,001
Lv ef(%)	55±3	53±4	0,117
La diameter(cm)	3,6±0,3	4,0±0,3	0,004
Ivc diameter (cm)	1,5±0,2	1,8±0,3	0,002
Rv diameter(cm)	4,9±0,2	5,1±0,2	0,005
Tapse(mm)	19±1,7	15±1,8	<0,001
Pasp(mmHg)	58±5	75±6	<0,001
Tapse/Pasp ratio(mm/mmHg)	0,33±0,05	0,21±0,02	<0,001
Ra area(cm2)	18±1,2	24±1,6	<0,001
Hemoglobin (g/dl)	11,8±1,0	11,2±0,9	0,052
Bun(mg/dl)	38,5±2,3	40±5	0,203
Creatinine (mg/dl)	0,8±0,1	0,9±0,1	0,003
Total protein (mg/dl)	6,3±0,3	5,9±0,3	0,005
Ast(U/l)	25(22-28)	32(28-36)	0,012
Alt(U/l)	24(21-27)	30(28-32)	0,005
Na(mmol/l)	137±3	136±2	0,320
K(mmol/l)	4±0,2	3,9±0,1	0,098
Crp(mg/l)	5(3-6)	18(16-22)	<0,001

OA-32 VOLUME AND THICKNESS COMPARISON OF PERIAORTIC ADIPOSE TISSUE IN ASCENDING AND DESCENDING AORTA

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Objective: Periaortic adipose tissue (PAT) is associated with atherosclerosis and enlargement of the aorta. PAT volume has been measured from the descending aorta by computed tomography (CT) in studies performed so far. There are no studies evaluating PAT in the ascending aorta with simpler and radiation-free imaging methods such as transthoracic echocardiography instead of CT. In order to make this evaluation, we aimed to compare PAT volume in the descending aorta with PAT volume and thickness measured from the ascending aorta with CT.

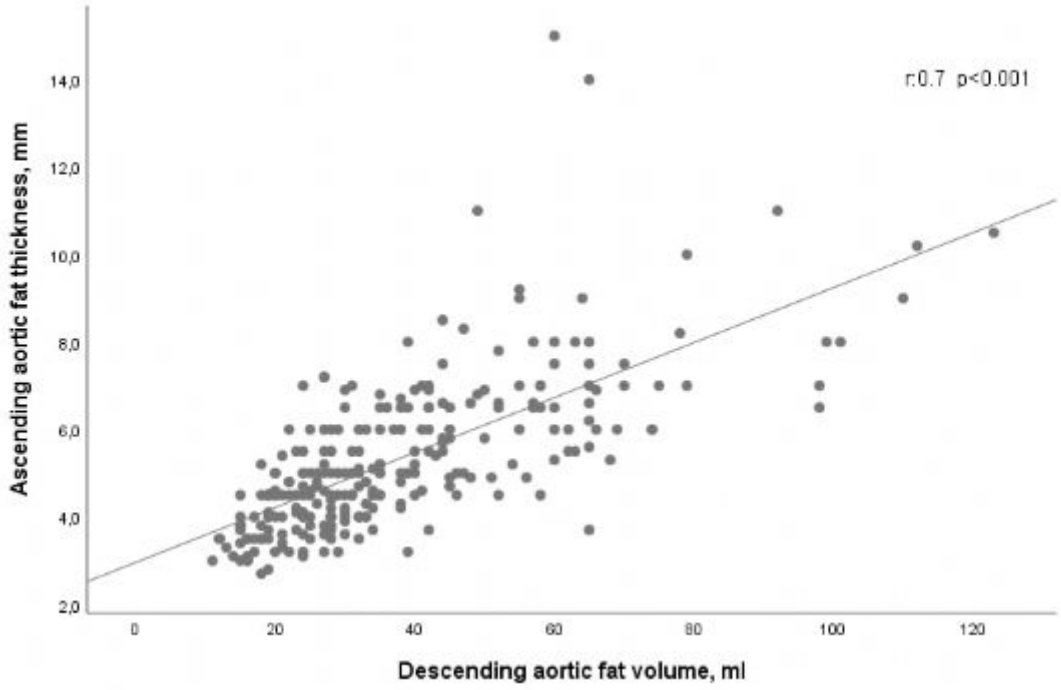
Materials-Methods: Patients who underwent thoracic CT at Baskent University Alanya Application and Research Center between January 2017 and January 2022 were evaluated retrospectively. PAT volume was evaluated from CT images with appropriate software. PAT volume was calculated from the ascending and descending aorta, in addition, the thickness of the PAT at the widest point was measured from the ascending aorta. The patients were divided into two groups according to the median value of the PAT volume measured from the descending aorta. Demographic characteristics, PAT volume and thickness measured from the ascending aorta were compared between groups. PAT volume measured from the descending aorta and PAT volume and thickness measured from the ascending aorta were analyzed in correlation analysis.

Results: In our study, 263 patients [mean age 64.9±12.9 years, male 164 (62.4%) were evaluated. The median value of PAT volume measured from the descending aorta was 32.0 ml. Patients with higher PAT volume were older and male gender was more frequent (p:0.039, p:0.004, respectively). In addition, coronary artery disease was found more frequently, glucose and triglyceride levels were higher, and HDL and GFR were lower (p:0.021, p:0.022, p:0.004, p:0.019, p 0.027, respectively). In the group with high PAT volume, the ascending and descending aorta diameters were wider, and PAT volume and thickness measured from the ascending aorta were higher (p<0.001, for all) (Table 1). In the correlation analysis, a strong correlation was found between PAT volume measured from the ascending and descending aorta, additionally PAT volume measured from the descending aorta and PAT thickness measured from the ascending aorta (r:0.81, p<0.001, r:0.7, p p<0.001, respectively) (Figure 1 and 2).

Conclusion: In our study, PAT measured from the ascending aorta in terms of volume and thickness showed a strong correlation with the PAT volume measured in the descending aorta. Evaluation of PAT from the ascending aorta with imaging modalities other than CT may be useful in cardiovascular diseases.

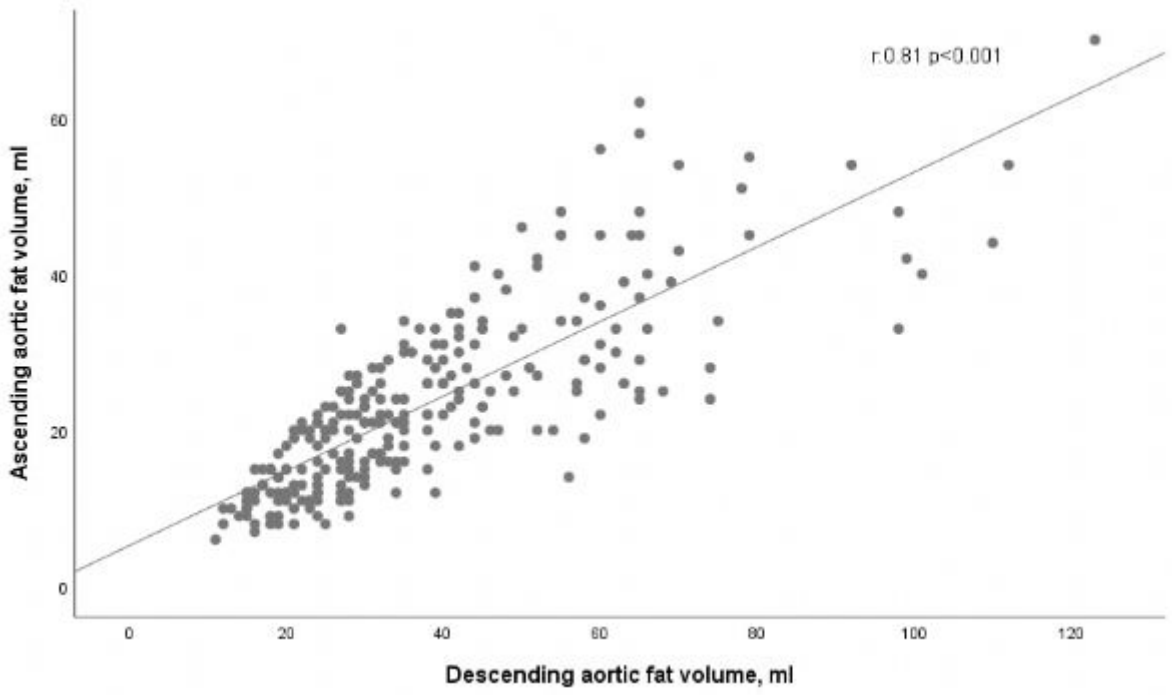
Keywords: periaortic adipose tissue, computed tomography, cardiovascular imaging

Figure 1



Correlation analysis of periaortic adipose tissue volume of the ascending and descending aorta

Figure 2



Correlation analysis of periaortic adipose tissue thickness measured from the ascending aorta and periaortic adipose tissue volume of the descending aorta

Table 1

	Descending aortic fat volume <32 ml	Descending aortic fat volume >=32ml	Total	p value
Number	127	36	263	
Age, years	63.2±13.4	66.5±12.3	64.9±12.9	0.039
Male/Female, N (%)	68(53.5)/59(46.5)	96(70.6)/40(29.4)	164(62.4)/99(37.6)	0.004
Systolic BP, mmHg	130(120/140)	130(120/145)	130(120/140)	0.233
Diastolic BP, mmHg	80(70/85)	80(70.5/90)	80(70/90)	0.166
Smoking, N(%)	20(15.7)	27(19.9)	47(17.9)	0.385
Hypertension, N(%)	67(52.8)	86(63.2)	153(58.2)	0.085
Diabetes, N(%)	40(31.5)	54(39.7)	85(32.3)	0.165
Coronary artery disease, N(%)	13(10.2)	28(20.6)	41(15.6)	0.021
ASA, N(%)	41(32.3)	45(33.1)	86(32.7)	0.889
ACEi/ARB, N(%)	50(39.4)	62(45.6)	112(42.6)	0.308
Beta blocker, N(%)	36(28.3)	43(31.6)	79(30)	0.563
CCB, N(%)	24(18.9)	40(29.4)	64(24.3)	0.047
Statin, N(%)	21(16.5)	35(25.7)	56(21.3)	0.069
Hemoglobin, g/dl	12.9±2	13.2±2.2	13.1±2.1	0.360
Glucose, mg/dl	114(99/152)	129.5(106/175)	120(103/162)	0.022
GFR, ml/min/1.73 m2	83.5(59/96.5)	75(54/91)	79(57/92)	0.027
Total Cholesterol, mg/dl	186±56	196±43	192±49	0.317
LDL-Cholesterol, mg/dl	116±38	122±34	120±36	0.259
HDL-Cholesterol, mg/dl	44(39/53)	40(34/48)	41(34/51)	0.019
Triglyceride, mg/dl	132±76	178±100	159±93	0.004
Descending aortic fat volume, ml	24(19/28)	45(38/60)	32(24/46)	<0.001
Ascending aortic fat thickness, mm	4.1(3.6/5)	6(5/7)	5(4/6.5)	<0.001
Ascending aortic fat volume, ml	14(11/20)	28.5(22/37)	21(14/29)	<0.001
Ascending aortic diameter, mm	35.5±4.7	38.2±4.9	36.9±4.9	<0.001

Clinical and laboratory findings of patient groups formed according to periaortic adipose tissue volume.

OA-33 ELECTROCARDIOGRAPHIC FEATURES OF COVID-19 PATIENTS HOSPITALIZED IN INTENSIVE CARE UNIT

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Objective: COVID-19 infection causes cardiac effects by many mechanisms such as direct damage, secondary to hypoxia or the effects of drugs used in the treatment. Our aim is to research the electrocardiographic characteristics of patients and the cardiac effects of COVID-19 during admission to ICU.

Method: During the three months period, demographic characteristics, ECG characteristics and laboratory parameters of COVID-19 intensive care patients confirmed by PCR test were recorded. The number of days of stay in the intensive care unit and mortality were evaluated.

Results: The mean age of the patients was 68.4±12.5. 46.4% were male. The mean APACHE was 18.9±8.1. The most common comorbidities of patients were HT (32.7%), respiratory disorders (29%) and DM (19.0%). The survivor group consisted of 41 patients and non-survivor group consisted of 41 patients. There was no significant difference between the groups in terms of comorbidities (p>0.05). The average number of days of stay in the intensive care unit was 11.0±8.55. Our mortality rate was 51.2%. QT duration (QT) and QRS were significantly longer in the deceased patient group than in the discharged patient group in ICU (Table 1).

Conclusion: We found that the QT duration and QRS were statistically longer in the group of patients who died in our study. In a study conducted with 324 patients, it was shown that QRS duration increase was associated with mortality. They associated this condition with left ventricular dysfunction, repolarization abnormalities and malignant arrhythmias. Our finding supports this study. In conclusion QRS duration and QT duration may be independently associated with mortality during intensive care hospitalization in COVID-19 patients.

Keywords: Electrocardiography, COVID-19, Intensive care unit admission

ECG findings and characteristics of the study patients

Variables	Survival group (n=41)	Non survival group (n=43)	p-value
HR (bPM)	94.7±34.0	63.7±5.9	0.102
PR interval (msec)	151.8±37.0	186.5±48.8	0.171
QT interval (msec)	356.7±43.1	436.5±20.6	0.005
QRS interval (msec)	97.3±14.7	139.5±51.6	0.029

Abb. HR; heart rate, bPM; beats per minute, QTc; rate-corrected QT interval.

OA-34 COMPARISON OF PLASMA PROADRENOMEDULLIN LEVELS IN ASSOCIATION WITH ECHOCARDIOGRAPHY PARAMETERS IN PATIENTS BEFORE AND AFTER PERCUTANEOUS MITRAL BALLOON VALVULOPLASTY

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Background: Comparison of Plasma Proadrenomedullin Levels in Association with Echocardiography Parameters in Patients before and after Percutaneous Mitral Balloon Valvuloplasty Aim: Percutaneous mitral balloon valvuloplasty is the first line treatment in mitral stenosis patients with appropriate anatomical features and with no procedural contraindication. Level differention of biomarkers such as natriuretic peptides after PMBV have been investigated in many studies. We have aimed to evaluate Proadrenomedullin levels which have many cardiovascular affects, during PMBV and it's association with echocardiographic parameters such as mitral valve area (MVA), mean mitral gradient.

Methods: We have included 32 patients who have severe mitral stenosis and successfully performed percutaneous mitral balloon valvuloplasty. We have evaluted Proadrenomedullin, NT-ProBNP levels and transthorasic echocardiographic parameters before and at 3rd month after prodecure.

Results: Mean Proadrenomedullin plasma level before PMBV was 9200±1877 pmol/L which was found to decrease to 7720±1277 at 3rd month of the procedure. This decrease was statistically significant (p <0.001). Additionally NT-ProBNP levels decreased significantly after the procedure (p=0.008). Proadrenomedullin levels before PMBV was moderately correlated with mitral valve area (r=0.609, p <0.001) and mean mitral gradient (r=0.537, p=0.002) while it was less correlated with systolic pulmonary artery pressure (sPAP) (r=0.336, p=0.060). Similarly 3rd month plasma proadrenulomedullin levels were moderately correlated with mean mitral valve gradient (r=0.537, p=0.003) while it's correlation with sPAP (r=0.485, p=0.008) and mitral valve area (r=-337,p=0.074) was weak found.

In Conclusion: The significant decrease in plasma proadrenomedullin levels after PMBV procedure suggests that proadrenomedullin level measurement may be effective in demonstrating the success of the PMBV procedure.

Keywords: Mitral stenosis, percutaneous mitral balloon valvuloplasty, proadrenomedullin

table1

Özellikler	N=32
Yaş (yıl)	45.09±10.40
Cinsiyet (erkek, n%)	4 (12.4)
Sigara, n (%)	3 (9.4)
Hipertansiyon, n (%)	3 (9.4)
Koroner arter hastalığı, n (%)	3 (9.4)
Diyabetes mellitus, n (%)	9 (28.1)
Hiperlipidemi, n (%)	17 (53.1)
Kronik böbrek yetmezliği, n (%)	1 (3.1)
Serebro vasküler olay, n (%)	0 (0)
Atrial fibrilasyon, n (%)	3 (9.4)
Vücut kitle indeksi, (kg/m²)	29.83±4.75
Sistolik tansiyon, (mm Hg)	131.5±4.9
Diyastolik tansiyon (mm Hg)	76.6±4.7
Wilkins skoru	6.88±1.29
Kalp hızı (atım/dk)	78±16
LVEF (%)	62.4±3.4
LVEDÇ (cm)	4.65±0.40
LVESÇ (cm)	2.87±0.42
Sol atriyum volüm indeksi (ml/ m²)	37.6±7.6
SEK 0 yok n (%)	14 (43.8)
1+ hafif n (%)	7 (21.9)
2+ hafif-orta n (%)	8 (25)
3+ orta n (%)	3 (9.4)

LVEF: Sol ventrikül ejeksiyon fraksiyonu, LVEDÇ: Sol ventrikül end diyastolik çap, LVESÇ: Sol ventrikül end sistolik çap, SEK: Spontan EKO kontrast

demographic characteristics of patients

table2

N=32	İşlem Öncesi	İşlem Sonrası	P değeri
MVA (cm²)	0.98±0.20	1.76±0.15	**<0.001**
Ortalama Gradient (mm Hg)	16.28±4.11	5.44±1.50	**<0.001**
TPAB (mm Hg)	56.8±13.9	37.0±4.4	**<0.001**
Hemoglobin (g/dL)	12.54±1.55	12.02±1.66	**0.022**
WBC (10^3/uL)	8.50±2.61	9.65±3.43	**0.016**
Nötrofil (10^3/uL)	5.21 (2.09-13.34)	6.55 (2.35-14.62)	**0.007**
Lenfosit (10^3/uL)	2.37±0.94	1.89±0.90	**0.003**
N/L	2.07 (0.58-9.27)	3.24 (1.09-13.46)	**0.003**
CRP (mg/L)	2.18 (1.00-33.20)	3.89 (1.00-25.14)	0.171
NT-ProBNP (pg/mL)	367 (137-1643)	327 (95-1604)	**0.008**
Proadrenomedullin (pmol/L)	9200±1827	7720±1277	**<0.001**

MVA: Mitral kapak alanı, TPAB: Tahmini sistolik pulmoner arter basıncı, WBC: White blood cells

N/L: Nötrofil/Lenfosit, CRP: C reaktif protein, NT-ProBNP: N-terminal pro-brain natriuretic peptide

Comparison of Some Echocardiographic Parameters and Laboratory Values Before and After the Procedure

OA-35 RELATIONSHIP BETWEEN METABOLIC SYNDROME AND CARDIO-ELECTROPHYSIOLOGICAL BALANCE

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Aims: Metabolic syndrome is associated with increased cardivascular morbidity and mortality. İndex of cardiac electrophsiological balance (iCEB),calculated as QT interval/QRS duration and increased Tp-e/QT ratio are indicator for predicting malignant ventricular arrytmias. The aim of this study was to evaulate relation of metabolic syndrome with iCEB and Tp-e/QT ratio

Methods: This study included aged 40-70 99 patients, divided 2 groups: Metabolic syndrome 49 patient s (23 male, mean age 58,42± 8,64 years) and control group (25 male,mean age 55,62± 6,59 years).Standard 12 lead electrocardiogram of all patients was recorded. Tp-e interval,QT interval,QRS duration,Tp-e/QT and QT/QRS ratio were measured.

Results: Non statisfically significant difference was found between two groups in terms of basic charactericss. Tp-e duration and Tp-e/QT ratio were also significantyl higher in patient with metabolic syndrome group (82,77±8,26/76,14±3,67 and 0,19±0,02/0,18±0,10; p values<0,001). QRS duration was significantyl higher in control group. (90,54±6,25 /81,46±5,45; p value<0,001). iCEB and iCEBc were significantyl higher in patient with metabolic syndrome group (4,59±0,34/4,12±0,29; p<0,001 and 5,09±0,37/4,48±0,31; p<0,001).

Conclusions: Tp-e/QT, iCEB and iCEBc were significantyl increased in patients with metabolic syndrome.

Keywords: iCEB, iCEBc, metabolic syndrome, Tp-e/QT

Comparison of basic and electrocardiographic features of metabolic syndrome and control group patients

	Metabolic syndrome (n: 49)	Control group (n:50)	P value
Age (years)	58,42± 8,64	55,62± 6,59	0,072
Sex(n,%) males	23(%46,9)	25(%50)	0,761
Body mass index (BMI:kg/m2)	35.29 ± 3.72	23,42 ±1,36	<.001*
Waist circumference(cm)	101,42±9,82	83,98±6,24	<.001*
Hypertension n(%)	43 (% 87,8)	8 (%16)	<.001*
Diabetes mellitus n (%)	22(%44,9)	0(%0)	<.001*
Fasting HDL cholesterol (mg/dl)	46,04±6,81	50,88±9,61	0,005*
Fasting triglyceride(mg/dl)	231,57±57,15	136,66±31,63	<.001*
Na (mmol/L)	138,30±2,24	138,70±2,33	0,394
K (mmol/L)	4,41±0,37	4,33±0,38	0,240
Ca (mg/dl)	9,63±0,42	9,79±0,40	0,064
Mg (mg/dl)	2,04±0,25	2,05±0,19	0,874
TSH (mIU/mL)	1,67±0,84	1,73±0,68	0,620
Creatinine (mg/dl)	0,87+0,17	0,88+0,15	0,889
Left ventricular ejection fraction(%)	64,40+1,71	64,4+2,0	0,983
Left ventricular end-diastolic diameter(mm)	47,30±1,48	47,46±1,35	0,592
Left ventricular mass index(g/m2)	93,46±12,01	92,54±6,25	0,523
Heart rate, beats/min	74,00±8,97	71,92±8,06	0,261
QRS duration, ms	81,46±5,45	90,54±6,25	<.001*
QT interval, ms	373,44±11,59	372,10±14,69	0,614
QTc interval, ms	413,34±15,39	405,28±16,34	0,013*
Tp-Te, ms	82,77±8,26	76,14±3,67	<.001*
Tp-e/QTc ratio	0,19±0,02	0,18±0,10	<.001*
iCEB	4,59±0,34	4,12±0,29	<.001*
iCEBc	5,09±0,37	4,48±0,31	<.001*

OA-36 THE IMPACT OF ANABOLIC-ANDROGENIC DRUGS ON THE CARDIAC CONDUCTION SYSTEM OF BODYBUILDERS

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Objective: We aimed to investigate the effect of anabolic-androgenic drugs (AAD) on the cardiac conduction system and evaluate the feasibility of ECG parameters in predicting the development of arrhythmia in bodybuilders.

Method: We assessed 45 competitive bodybuilders and 45 healthy controls. Demographic and anthropometric data were collected. Hematologic and biochemical tests were performed. ECG was performed on all participants in the study. ECG parameters were measured.

Result: The average age of the bodybuilders' group was 28.7±1.4 years, and the male population (63%) was almost two-hold the number of females. In terms of clinical features such as age (p=0.081) and body mass index (BMI) (p=0.527), there were no significant differences between the study and control groups. There were no significant differences between the groups in terms of systolic blood pressure (p=0.394), and diastolic blood pressure (p=0.133). Heart rate was statistically significant in the study group compared to the control group (p=0.038). In terms of routine blood tests, there was no significant difference between the study and control groups (p>0.05; Table 1). In the comparison of ECG parameters, Tp-e, Tp-e/QT, Tp-e/QTc, and Pd were statistically significant in the study group (p<0.05). There were no significant differences in QTd and QTcd between the two groups (p>0.05).

Conclusion: Tp-e interval, Tp-e/QT ratio, Tp-e/QTc ratio, and Pd were higher in AAD users, which suggests that there might be a link between AAD use and arrhythmias of atrial and ventricular. This result showed that bodybuilders may be at risk of sudden death in the future and should be followed in this respect.

Keywords: P-wave dispersion, Tp-e interval, Tp-e/QT ratio, Tp-e/QTc ratio, androgenic-anabolic drugs

Clinical characteristics and comparison of ECG parameters between groups

PARAMETERS	Bodybuilders n=45	Controls n=45	P-value
Age (Years)	28.7±1.4	26.1±2.3	0.081
Gender, female, n (%)	17(37)	16(33.3)	0.713
BMI (kg/m²)	24.5±0.51	24.3±0.52	0.527
SBP (mmHg)	118.2±1.3	121.9±1.8	0.305
DBP (mmHg)	71.2±1.16	73.4±0.86	0.133
Heart Rate (beat/min.)	66.5±1.92	71.8±1.78	0.038
Hemoglobin (g/dl)	15.6±0.13	15.3±0.15	0.217
eGFR	95.4±30.8	99.8±22.3	0.314
AST (U/L)	18(13)	20(13.6)	0.328
ALT (U/L)	16(17)	18(17.2)	0.406
Glucose (mg/dl) [IQR]	89(30)	86.5(29.7)	0.813
DL, n (%)	15(23.5)	18(31.3)	0.720
Tp-e (ms)	87.47±1.76	76.58±1.02	<0.01
Tp-e/QT ratio	0.23±0.05	0.20±0.04	<0.01
Tp-e/QTc ratio	0.22±0.05	0.19±0.03	<0.01
Pd (ms)	51.1±9.1	45.3±13.6	0.029
QTd (ms)	54.0±6.6	53.3±8.1	0.201
QTcd (ms)	67.6±8.1	65.8±8.8	0.148

Values are presented as mean ± SD and median [interquartile range]. BMI: body-mass index, SBP: systolic blood pressure, DBP: diastolic blood pressure, LDL: low-density lipoprotein, HDL high-density lipoprotein, CRP: C-reactive protein, eGFR: Estimated glomerular filtration rate, AST: aspartate aminotransferase, ALT: alanine aminotransferase, DL: dyslipidemia, Tp-e: the interval between the peak and the end of the T-wave, Pd: P-wave dispersion, QTd: QT dispersion, QTcd: Corrected QT dispersion.

OA-37 ORAL ANTICOAGULANT TREATMENT AND CLINICAL CHARACTERISTICS OF ATRIAL FIBRILLATION PATIENTS; TERTIARY CENTER EXPERIENCE

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BAKIRKOY DR SADİ KONUK EDUCATİON AND TRAİNİNG HOSPİTAL

Introduction: The incidence and prevalence of atiral fibrillation (AF) has been increasing worldwide. It has been reported that the prevalence of AF has increased three-fold in the past 50 years. The most important morbidity associated with AF is embolic events. Current guidelines recommends anti-coagulation treatment all AF patients who are under moderate or high risk for stroke. In the present study we aimed to evaluate clinical characteristics and anticoagulation treatment in AF patients.

Material and Methods: Patiens who applied to our cardiology outward clinic between Januaray 2022 to March 2022 were enrolled in the study. Patients' clinical and demographic characteristics, medical history were retrospectively analyzed. A total of 196 patients were included the study.

Results: Mean age of the patients and body mass index were 72.29±8.98 years and 28.69±4.92 kg/m2, respectively. Of these patients 59.2% were women and 40.8% were men. Left atrial diameter, right atrial diameter, ejection fraction and pulmonary arterial systolic pressure were 4.52±0.64 cm, 4.13.±0.49 cm, 55.43% and 38.28±7.72 mmHg, respectively. Mean creatinine level was 1.01±0.53 mg/dL. 21.9% of the patients had history of coronary artery disease, 3.6% of them had valvular heart disease. 24.2% had history of ischemic stroke, whereas 1% had history of hemorrhagic store. Most of them had mild tricuspid/mitral regurgitation or no valvular regurgitation at all. 31.1% used angiotensin converting enzyme inhibitors, 25% used angiotensin receptor blocker, 32.7% used calcium channel blocker, 5.1% used antiarrythmic medication, 10.4% used digoxin and 28.6% used statin. Most of the patients used novel oral anticogulation drugs with a percentace of 78.5%. Almost one -seventh (14.2%) of the patients did no use any anticoagulation treatment. The rhythm was sinusal in 85.7% of the patients.

Conclusion: Most of the patients in our clinic used novel oral anticogulants. These drugs are preferred for their ease of use, fewer drug interactions and lack of monitoring requirements.

Keywords: Atrial fibrillation, novel oral anticoagulants, treatment

Table 1

	Mean±Standard Deviation	Median (min-max)
Age (years)	72.29±8.98	73 (52-91)
Body mass index (kg/m2)	28.69±4.92	28.65 (18.42-44.92)
LA (cm)	4.52±0.64	4.5 (3.2-7.5)
RA (cm)	4.13.±0.49	4.2 (3.0-5.3)
EF (%)	55.43±9.08	57 (20-66)
Pulmonary Artery Pressure (mmHg)	38.28±7.72	36 (28-60)
Glucose (mg/dL)	114.99±46.60	102.70 871-429)
Total cholesterol (mg/dL)	182.81±49.32	187.50 (97-294)
LDL-C (mg/dL)	107.80±39.42	107.90 (39-200)
HDL-C (mg/dL)	48.61±13.59	45.70 (27.4-96)
Triglyceride (mg/dL)	140.85±69.52	124 (50-349)
BUN (mg/dL)	42.20±20.22	37.1 (11.88-149.0)
Creatinine (mg/dL)	1.01±0.53	0.90 (0.36-4.6)
Hemoglobin (g/dL)	12.59±2.10	12.6 (1.7-16.6)
	N	(%)
Gender		
Female	116	59.2
Male	80	40.8
Smoking	14	7.1
Alcohol consumption	2	1
Ischemic Heart Disease	43	21.9
Cerebrovascular event		
Ischemic	47	24.2
Hemorrhagic	2	10
Antidiabetic drug use	40	20.6
Angiotensin converting enzyme inhibitor	63	31.1
Angiotensin receptor blocker	49	25
B blocker	148	75.5
Ca blocker	64	32.7

	Mean±Standard Deviation	Median (min-max)
Spirinolactone	31	15.8
Loop diuretic	63	32.1
Antiarryhtmic	10	5.1
Digpxin	20	10.4
Statin	56	28.6
Warfarin	14	7.3
Apixaban	62	31.6
Rivaroxaban	56	28.6
Edoxaban	24	12.2
Dabigatran	12	6.1
Rhythm		
Atrial Fibrillation	168	85.7
Sinus	28	14.3

Clinical characteristics of the patients.

OA-38 TREND OF SEX DIFFERENCES AND CLINICAL OUTCOMES OF PATIENTS WITH ATRIAL FIBRILLATION IN TURKEY; A MULTICENTER EXPERIENCE

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Objective: The gender differences has been a matter of interest in cardiology lately. In that context, the impact of gender differences were investigated in cardiac procedures such as percutaneous coronary intervention, coronary artery bypass operations, catheter ablation in atrial fibrillation (AF). To date, there are very limited studies the effect of genders on clinical outcomes such as death, ischemic and hemorrhagic strokes in AF patients. Here, we evaluated the effect of genders on clinical outcomes in AF patients from a multicenter experience perspective.

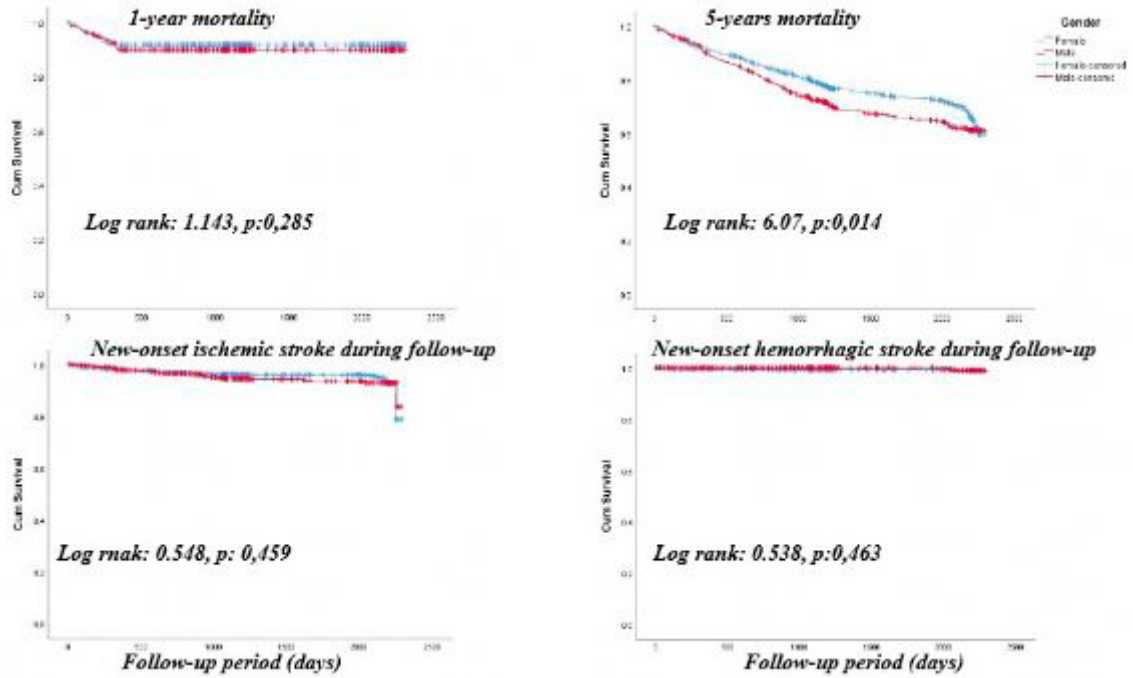
Methods: Demographic characteristics, medications and clinical outcomes of the patients were obtained from 35 center retropspectively between the dates 2015-2021 from national non-valvular atrial fibrillation registry (AFTER-2 study Clinicaltrials.gov number, NCT02354456). Finally, 1271 patients were enrolled the study protocol after the patients who were excluded because of cross-over and loss of follow-up. Multivariable cox regression models were performed to determine independent predictors of 1-year mortality, 5-years mortality, new-onset ischemic or hemorrhagic stroke.

Results: The study included 1271 patients comprising 556 (43.7%) male and 715 (56.3%) female with a mean age of 69±10 years. Over a median 1662 days (890-2130 days) of follow-up, including 115 (9%) one-year all cause mortality, 389 (30.6%) five-years mortality, 65 (5.1%) new-onset ischemic stroke cases and 7 (0.6%) new-onset hemorrhagic stroke cases were identified. Five years mortality rates were higher in male group than in female group (34.2% vs. 27.8%, p:0.015). Smoking, chronic obstructive pulmonary disease, ischemc cardiomyopathy, CHADSVASC score were also higher in males than in women (Table 1). On the contrary; thyroxcosis, medication with angiotensin reseptor blockers were found higher in females than in males (Table 1). It is important to emphasize that males are more tend to be under rhythm strategy than in females (27.9% vs 21.3%, p:0.006, Table 1). In multivariable Cox regression analysis, age were associated with 1- year all cause mortality [OR:1,050; 95%CI (1,023-1,077), p<0,001] and body mass index [OR:0,963; 95%CI (0,938-0,989), p:0,006], age [OR:1,060; 95%CI (1,048-1,073), p<0,001], ejection fraction [OR:0,971; 95%CI (0,962-0,979), p<0,001], diabetes mellitus [OR:1,382; 95%CI (1,098-1,739), p<0,001] were also associated with 5-years all cause mortality.. Kaplan-Meier analysis showed a lower survival rate in male patients during follow-up (Log rank: 6,07, p:0,014, Figure 1).

Conclusion: This real life patient cohort revealed no remarkable distinction in terms of 1-year mortality, new-onset stroke during follow-up period between the both genders. However 5-years survival time were significantly lower in males than in females.

Keywords: atrium fibrillation, stroke, anticoagulation, sex

Figure 1



Kaplan Meier Analysis between genders according to their clinical endpoints

Table 1. Demographic Characteristics, Clinical Outcomes and Medications of the Patients

Parameters	Male (n:556)	Female (n:715)	P value
Age	71 (15)	70 (14)	0.862
Hypertension, n%	367 (66%)	510 (71.3%)	0.042
Diabetes Mellitus, n%	120 (21.6%)	181 (25.3%)	0.121
Smoking, n%	46 (8.3%)	26 (3.6%)	<0.001
Chronic Renal Failure, n%	405 (72.8%)	516 (72.2%)	0.790
Thyrotoxicosis, n%	7 (1.3%)	35 (4.9%)	<0.001
Pulmonary Embolism or Deep Venous Thrombosis, n%	4 (0.7%)	2 (0.3%)	0.413
Chronic Obstructive Pulmonary Disease, n%	111 (20%)	99 (13.8%)	0.004
Previous Cerebrovascular Disease or Transient Ischemic Attack, n%	49 (8.8%)	62 (8.7%)	0.929
Previous Hemorrhagic Cerebrovascular Disease, n%	5 (0.9%)	8 (1.1%)	0.699
New-onset Ischemic Cerebrovascular Disease, n%	31 (5.6%)	34 (4.8%)	0.510
New-onset Hemorrhagic Cerebrovascular Disease, n%	2 (0.4%)	5 (0.7%)	0.477
Thrombus in Left Atrium, n%	4 (0.7%)	6 (0.8%)	1
Non-ischemic Cardiomyopathy, n%	33 (5.9%)	27 (3.8%)	0.072
Ischemic Cardiomyopathy, n%	194 (34.9%)	141 (19.7%)	<0.001
Hypertrophic Cardiomyopathy, n%	6 (1.1%)	3 (0.4%)	0.191
CHADSVASC score, IQR	3 (2)	3 (1)	<0.001
HASBLED score, IQR	1 (1)	1 (1)	0.512
EHRA 1, n% EHRA 2, n% EHRA 3, n% EHRA 4, n%	151 (27.2%) 314 (56.5%) 81 (14.6%) 4 (0.7%)	141 (19.7%) 430 (60.1%) 135 (18.9%) 4 (0.6%)	0.013
First AF, n% Paroximal AF Persistant Af Permanent Af	31 (5.6%) 98 (17.6%) 56 (10.1%) 371 (66.7%)	35 (4.9%) 135 (18.9%) 70 (9.8%) 475 (66.4%)	0.902
Rate control, n% Rhythm control, n%	401 (72.1%) 155 (27.9%)	563 (78.7%) 152 (21.3%)	0.006
Ejection Fraction %, IQR	55 (23)	57 (15)	<0.001
Follow-up time (days), IQR	1461 (1289)	1920 (1182)	0.082
Body mass index kg/m²	27.5±3.75	29±4.15	<0.001
Heart rate beats/per minute	87±18	88±18	0.395
Glomerular filtration rate (ml/min/1.73m²)	50±29	49±29	0.898
1-year death, n%	56 (10.1%)	59 (8.3%)	0.262
5-year death, n%	190 (34.2%)	199 (27.8%)	0.015
Warfarin, n%	271 (48.7%)	332 (46.4%)	0.414
Dabigatran 110mg bid, n% Dabigatran 150 mg bid, n%	60 (10.8%) 18 (3.2%)	100 (14%) 19 (2.7%)	0.207
Rivaroxaban 15mg od, n% Rivaroxaban 20 mg od, n%	122 (21.9%) 8 (1.4%)	153 (21.4%) 19 (2.7%	0.207
Apixaban 2.5mg bid, n% Apixaban 5 mg bid, n%	58 (10.4%) 9 (1.6%)	74 (10.3%) 8 (1.1%)	0.741
Edoxaban 30 or 60 mg od, n%	15 (2.7%)	13 (1.8%)	0.289
Digoxin, n%	102 (18.3%)	149 (20.8%)	0.268
Amiodarone, n%	21 (3.8%)	35 (4.9%)	0.335
Propafenone, n%	16 (2.9%)	24 (3.4%)	0.628
Acetylsalicylic acid, n%	144 (25.9%)	140 (19.6%)	0.007
Clopidogrel, n%	44 (7.9%)	42 (5.9%)	0.151
Beta blockers, n%	364 (65.5%)	460 (64.3%)	0.675
Diltiazem, n%	90 (16.2%)	135 (18.9%)	0.212
Verapamil, n%	6 (1.1%)	14 (2%)	0.212

Parameters	Male (n:556)	Female (n:715)	P value
ACE inhibitors, n%	181 (32.6%)	210 (29.4%)	0.223
ARBs, n%	111 (20%)	207 (29%)	<0.001
Sotalol, n%	2 (0.4%)	8 (1.1%%)	0.201
Statins, n%	106 (19.1%)	100 (14%)	0.015
Diuretics, n%	212 (38.1%)	300 (42%)	0.167
Nitrats, n%	38 (6.8%)	35 (4.9%)	0.140
Sistolic blood pressure, mmHg	127±17	129±18	0.063
Diastolic blood pressure, mmHg	77±11	78±12	0.583

OA-39 THE IMPORTANCE OF ELECTROPHYSIOLOGICAL BALANCE INDEX IN PATIENTS WITH TYPE-2 DIABETES MELLITUS

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Objective: Diabetes mellitus (DM) is closely associated with cardiovascular morbidity and mortality. Arrhythmias are more common in patients with DM than in patients with non-diabetes. The relationship between DM and cardiac arrhythmias is complex and multivariable including autonomic dysfunction, myocardial remodeling, and molecular changes. The most common of these arrhythmias are atrial fibrillation, premature ventricular beats, and nonsustained ventricular tachycardias. Epidemiological studies with general population models have shown that patients with DM have a higher risk of sudden cardiac death. The index of cardiac electrophysiological balance (iCEB), which has been used in recently studies, calculated as the QT interval divided by the QRS duration, is a novel risk indicator for predicting malignant ventricular arrhythmias. A positive correlation was observed between the increase of this parameter and malignant ventricular arrhythmias. We aim to compare the iCEB values of type-2 DM patients and the normal population.

Method: A total of 75 participants were included in our study. Thirty-seven of them were patients with type-2 DM who applied to the cardiology outpatient clinic of Gazi Yaşargil Training and Research Hospital. Thirty-eight of them were control group without type-2 DM. Demographic, laboratory, and electrocardiographic parameters of both groups were compared.

Results: The median age of the study population was 42 (36-46 IQR), and 43 of them (57.3%) were female. In laboratory parameters; aspartate transaminase ($p < 0.001$) was higher in type-2 DM group. In electrocardiographic findings; QRS duration was longer in the control group ($p = 0.001$). QT ($p=0.018$) and corrected QT ($p=0.011$) duration were higher in type-2 DM group. In addition, iCEB [4.30(3.94-4.51) vs 3.76(3.55-3.86), $p < 0.001$] and corrected iCEB (ICEBc) [4.81(4.61-4.93) vs 4.20(4.10-4.51), $p < 0.001$] in the DM group was significantly higher than in the control group (the data are given in the Table).

Conclusion: It is becoming increasingly apparent that DM is a significant risk factor for cardiac arrhythmias. Although there is a close relationship between DM and cardiac arrhythmias, the mechanisms underlying these changes are not fully understated. In a study, DM was seen as a very strong risk factor for fatal arrhythmias and sudden death. iCEB is a simple and practical parameter that has been used frequently recently. Studies support that increased iCEB is an indicator of fatal arrhythmias. In a study, the reference range for the normal population sample of iCEB was estimated as 3.24-5.24. In our study, iCEB and corrected iCEB were higher in patients with type-2 diabetes compared to the control group. Increased iCEB and iCEBc in diabetes can give clinicians ideas for predicting a possible ventricular arrhythmia in this patient group. Periodic tracing of these parameters is important for predicting possible ventricular arrhythmias and for treatments when necessary.

Keywords: Diabetes mellitus, iCEB, arrhythmias

Table: Demographic, laboratory, and electrocardiographic parameters of type-2 DM and control group.

Variables	Study population (n=75)	Type-2 DM group (n= 37)	Control group(n=38)	p value
Age, years	42(36-49)	44(39-51)	41(36-44)	0.130
Female sex, n (%)	43(57.3)	22(59.4)	21(55.3)	0.710
PR interval, ms	137(132-156)	136(134-166)	137(127-152)	0.053
Heart rate, beat/min	83(75-92)	88(76-92)	79(74-93)	0.181
QT interval, ms	345(334-359)	356(340-371)	342(327-354)	0.018
Corrected QT interval, ms	396(385-404)	401(390-409)	390(382-401)	0.011
QRS duration, ms	86(81-94)	84(78-90)	93(85-96)	0.001
iCEB (QT/QRS)	3.93(3.66-4.30)	4.30(3.94-4.51)	3.76(3.55-3.86)	<0.001
iCEBc (QTc/QRS)	4.54(4.14-4.84)	4.81(4.61-4.93)	4.20(4.10-4.51)	<0.001
Alanine transaminase, IU/L	26.0(20.0-35.0)	27(25-34)	24(19-35)	0.066
Aspartate transaminase, IU/L	21.0(16.5-28.0)	27(22-30)	18(15-27)	<0.001
Creatinine, mg/dL	0.75(0.70-0.81)	0.78(0.70-0.80)	0.73(0.67-0.85)	0.349
Potassium, mmol/L	4.3(4.0-4.5)	4.2(4.0-4.5)	4.3(4.1-4.6)	0.207
White blood cell, 109/L	8.62(7.32-9.75)	8.9(7.60-10.00)	8.37(7.15-9.45)	0.203
Neutrophil, 109/L	5.00(4.01-6.41)	5.40(4.25-6.40)	4.66(3.94-6.42)	0.412
Lymphocyte, 109/L	2.51(2.20-2.91)	2.60(2.20-3.50)	2.50(2.03-2.76)	0.092
Hematocrit, %	43.0(39.0-46.3)	44.1(41.0-51.0)	42.0(36.9-44.2)	0.110
Platelet, 109/L	269(243-304)	277(239-304)	266(245-314)	0.970

DM: Diabetes mellitus, iCEB: Index of cardiac electrophysiological balance, iCEBc: Corrected index of cardiac electrophysiological balance

OA-40 THE BIG DILEMMA IN THE CATHETER ROOM: MANAGEMENT OF LEFT MAIN CORONARY THROMBUS; MEDICAL TREATMENT? INTERVENTIONAL TREATMENT?

Ahmet Çağdaş Yumurtaş, Ozan Tezen, Levent Pay, Fatma Can, Mustafa Azmi Sungur, Ilhan Ilker Avcı, Gönül Zeren, Mehmet Fatih Yılmaz, Ufuk Gürkan, Can Yücel Karabay

Dr. Siyami Ersek Göğüs Kalp ve Damar Cerrahisi Eğitim ve Araştırma Hastanesi

Introduction: Left main coronary artery(LMCA)thrombosis can be seen in a rare part of patients presenting with acute myocardial infarction(MI)and mortality of this picture is high.Current treatment methods include medical treatment with antiaggregant or anticoagulant, mechanical thrombectomy, percutaneous revascularization(PCI) and coronary artery bypass surgery(CABG).

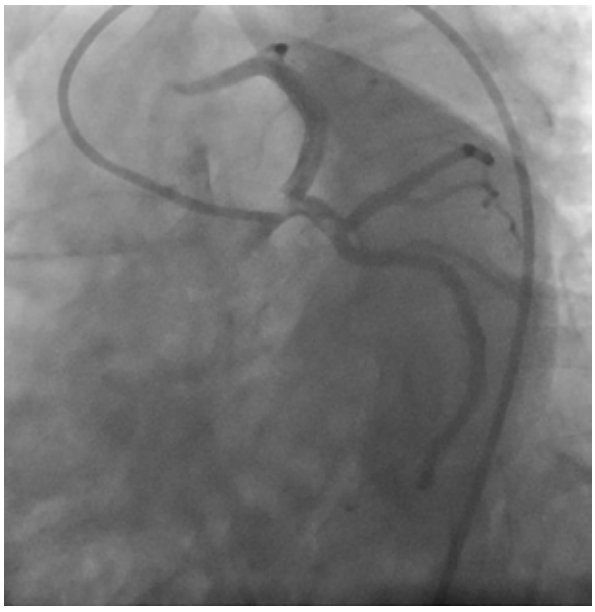
Case: In our case we'll describe the way of managing treatment of an acute MI patient with thrombus in the LMCA.38-year-old male patient with a known diabetes risk factor.Sinus rhythm and biphasic T waves(WellensA type) in leads V1-V4 were present in electrocardiography of patient who applied to emergency department with chest pain that developed after heavy exercise.Transthoracic echocardiography(TTE) performed in the emergency room,ejection fraction was 50% and mild hypokinesia was present in anterior wall.As the chest pain persisted,patient was taken to catheter room.Coronary angiography(CAG) revealed a major thrombus image extending from LMCA to left anterior descending(LAD) and left circumflex(LCx) arteries.TIMI3 flow and hemodynamic stability;in addition,patient's chest pain decreased,patient was taken to coronary intensive care unit(CICU) and subcutaneous(SC) low molecular weight heparin(LMWH) treatment was started with tirofiban infusion that will continue for 48hours after aspirin-clopidogrel loading.In CAG after tirofiban infusion,image of thrombus shrank to extend from LMCA to LAD;however due to persistence,patient was taken back to CICU. Thrombolytic therapy was decided to be given and 50 mg alteplase was given. After thrombolytic treatment,CAG was performed again and it was observed that thrombus image of patient persisted with a slight decrease.Patient was taken back to CICU and intravenous heparin(UFH) treatment was given for 5 days,keeping the target aPTT interval high(70-90 seconds).In CAG after heparin treatment,image of thrombus disappeared and a minimal opaque attachment was observed only in LAD ostium.Thereupon, it was planned to give aspirin 100mg 1x1,clopidogrel 75mg 1x1 and enoxaparin 80mg 2x1(SC) for 15 days and then to be checked with IVUS. Since no atherosclerotic plaque or thrombus was observed in intravascular examination performed 15 days after last CAG thrombus in first clinical picture was thought to be in situ thrombus and the patient's treatment was adjusted as aspirin 100mg 1x1 and edoxaban 60mg 1x1.Patient was discharged after an adventure of approximately 30 days.

Discussion: Due to lack of randomized clinical studies on this group of patients, there is still no consensus on treatment strategy of LMCA thrombi;however method generally applied in practice;If there is hemodynamic deterioration,CABG or PCI is primarily medical treatment if there is no hemodynamic deterioration and TIMI flow grade is 2-3.

Conclusion: In left main coronary artery thrombi,treatment should be determined individually and patient's hemodynamics should be followed closely.

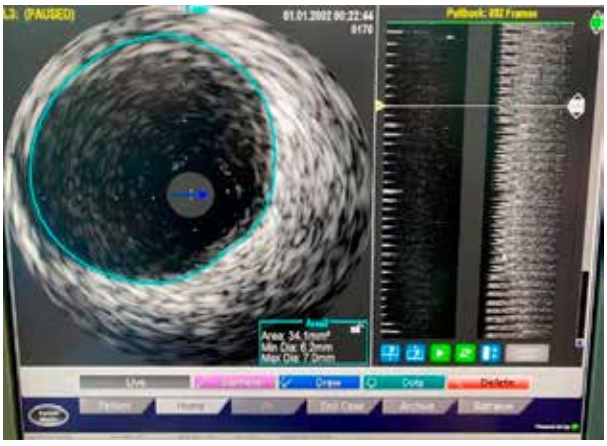
Keywords: thrombi, lmca, ivus, percutaneous

1st Angiography



Thrombi in LMCA to LAD and LCx

Final image in IVUS



Last Angiography with IVUS

OA-41 PULMONARY EMBOLY MIMICKING ANTERIOR MYOCARDIAL INFARCTION

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Katip Çelebi University Medical School Cardiology Department

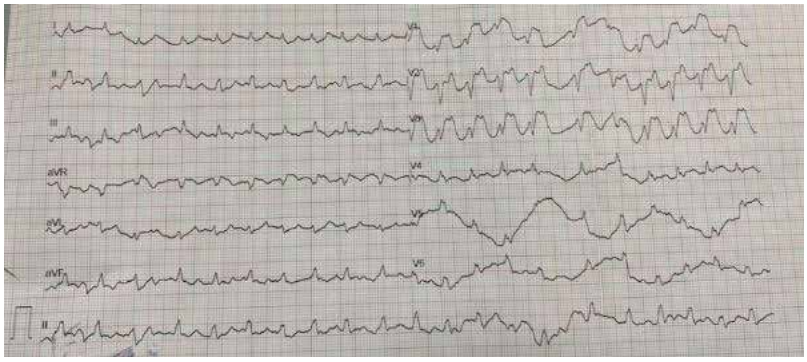
Introduction: Venous thromboembolism, clinically presenting as deep vein thrombosis(DVT) or pulmonary embolism(PE), is globally the third most frequent acute cardiovascular syndrome behind myocardial infarction and stroke. In most cases, PE is suspected in a patient with dyspnoea, chest pain, presyncope or syncope, or haemoptysis. Chest pain is a frequent symptom of PE and is usually caused by pleural irritation due to distal emboli causing pulmonary infarction In central PE, chest pain may have a typical angina character, possibly reflecting right ventricle(RV) ischaemia, and requiring differential diagnosis from an acute coronary syndrome. Electrocardiographic(ECG) changes indicative of RV strain—such as inversion of T waves in leads V1-V4,QR pattern in V1,S1Q3T3 pattern and incomplete or complete right bundle branch block—are usually found in more severe cases of PE. In addition, rarely ST elevation can be seen.

Case: 74-year-old female patient presented to the emergency department with the complaint of typical chest pain that had been increasing for 2 hours. She had no known history of chronic disease in her medical history. Her blood pressure was measured as 83/52 mm Hg. The patient who suffered cardiac arrest during the examination was resuscitated for 10 minutes, then the pulse and blood pressure were obtained. ECG showed left bundle branch block pattern and ST segment elevation in anterior leads(Figure 1). The blood values taken in the emergency department were not yet concluded, but considering the critical condition of the patient, the patient was taken to the catheterization laboratory with a preliminary diagnosis of anterior MI. Noncritical stenosis observed in coronary angiography. Thereupon, tranthorasic echocardiography(TTE) was performed in the catheter lab for other possible diagnoses. In the TTE, the ejection fraction was 60%, right atrium and right ventricle were dilated. Pulmonary artery pressure was calculated as 55 mm Hg. A mobile thrombus with a thickness of 2 mm and a length of 9 mm was observed in the right atrium. It was decided to perform pulmonary angiography. Diffuse thrombus was observed in the right and left main pulmonary arteries(Figure 2).The patient was followed up to the coronary intensive care unit and thrombolytic treatment was administered. Meanwhile, troponin(410 ng/L) and d-dimer(5344 ug/L) were observed to be high in the laboratory results. Unfortunately, there was no good response to the treatments and the patient died the next day.

Discussion and Conclusion: Mortality is high in cases of pulmonary embolism presenting with shock. As in this case, sometimes the patient's complaint may be confused with acute coronary syndromes. When we see ST segment elevation in the anterior leads on the ECG in patients presenting with chest pain, our preliminary diagnosis will be anterior myocardial infarction however, we should keep in mind that there may be ST segment elevation on ECG in pulmonary thromboembolism.

Keywords: pulmonary emboly, myocard infarction, angiography

Figure 1



ST segment elevation in anterior leads

Figure 2

Diffuse thrombus in the right and left main pulmonary arteries

OA-42 PERCUTANEOUS TREATMENT OF SEVERE ACUTE MITRAL REGURGITATION EARLY AFTER MYOCARDIAL INFARCTION

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[2]*Sisli Kolan International Hospital*

Objective: In this case report, implementation of transcatheter edge-to-edge repair (TEER) is presented to a young patient admitted with acute coronary syndrome, suffering from severe FMR after complete revascularization.

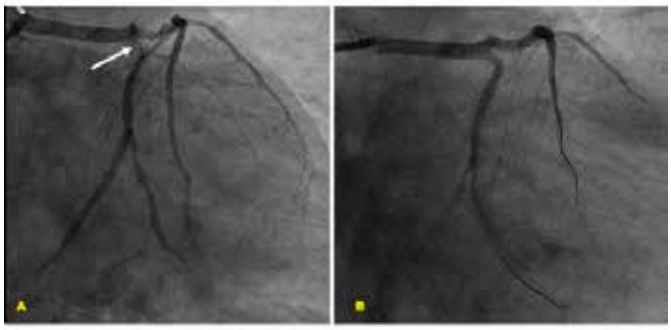
Method: A 45-year-old male, without previous coronary artery disease, admitted to the emergency department as diagnosis of non-st elevation myocardial infarction and underwent urgent coronary angiography, that revealed hazy 90% occlusion starting from distal left-main coronary artery (LMCA) into circumflex (CX) ostium which was considered as culprit lesion and long-segment critical stenosis in proximal to mid portion of left anterior descending artery (LAD). Right coronary artery was non-dominant and had a small diameter with 80% narrowing on the mid segment. Patient was discussed with the heart team immediately and performing ad-hoc percutaneous coronary intervention (PCI) was decided regarding the patient's unstable clinical status and high-risk for urgent by-pass surgery. Successful PCI was performed using three drug eluting stents with appropriate steps for mini-crush technique into LMCA, CX and LAD, under hemodynamic support with intra aortic balloon pump (IABP). Bedside transtorasic echocardiography showed left ventricle ejection fraction of 40%, akinesia on posterior and lateral wall and severe FMR without chorda or papillary muscle rupture. Although implementation of intensive medical therapy, non-invasive ventilatory support and continuation of IABP for a couple of days, restoration of stable hemodynamic condition and improvement on neither the degree of FMR nor the severity of pulmonary edema were not able to be reached. Therefore heart team decided to perform TEER with MitraClip system instead of surgical repair considering the patient's poor hemodynamic status and very high risk for surgery. Intraoperative transoesaphageal echocardiography (TEE) confirmed severe posterior eccentric FMR and TEER of mitral valve was successfully performed with implantation of three MitraClips following interatrial septal puncture. Marked reduction on FMR was observed in the TEE at the final of the procedure with mean gradient of 4 mmHg.

Result: Both hemodynamic and clinical dramatic responses were observed early after the procedure. Inotropic and diuretic doses were gradually decreased, pulmonary edema was finally resolved and weaning of the IABP was achieved two days later. He was discharged within a week after TEER and completed 6-month follow-up uneventfully under medical therapy with maintaining favorable functional class and mild degree FMR.

Conclusion: In our case report safety and efficacy of TEER was confirmed for acute severe FMR early after MI which is related to poor prognosis and needs urgent management. TEER may be considered as an alternative treatment strategy in selected patients with high risk for surgery.

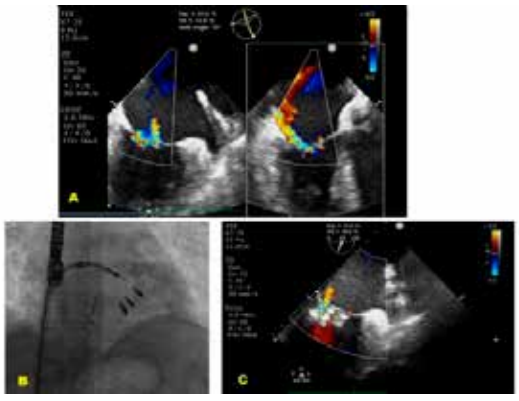
Keywords: transcatheter edge to edge repair, mitraclip, percutaneous mitral valve intervention, mitral regurgitation, myocardial infarction

Figure-1



(A) Initial coronary angiography revealed the culprit hazy 90% lesion on circumflex ostium (white arrow). (B) Final image after stenting procedure.

Figure-2



Intraoperative transoesaphageal echocardiography (TEE) confirmed severe posterior eccentric functional mitral regurgitation (A) and transcatheter edge to edge repair of mitral valve was successfully performed with implantation of three MitraClips (B). (C) Final TEE image showed mild regurgitation on mitral valve.

OA-43 ISOLATED RIGHT VENTRICULAR THROMBUS WITH THE SEVERE CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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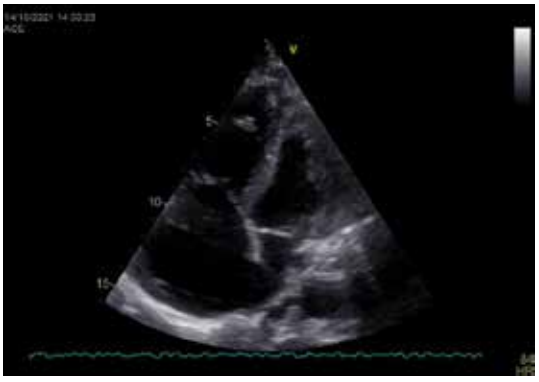
Right ventricular thrombus (RVT) is a life-threatening disorder that is rare and likely underdiagnosed. İsolated RVT is extremely rare, and it is constantly associated with pulmonary embolism or deep vein thrombosis or RV infarction. We reported a case of isolated RV thrombus with severe chronic obstructive pulmonary disease. An 80-year-old male patient presented to our emergency department with dyspnea with an oxygen saturation of 74%, tachypnoea,and tachycardia. Medical history was positive for chronic obstructive pulmonary disease, Alzheimer's, diabetes mellitus, and atherosclerotic cardiac disease. The patient did not use his medication and oxygen treatment regularly. An examination of his lungs revealed wheezing or prolonged expiratory sound. The beat was regular, and the S1 and S2 were normal. There were no S3, S4, or murmurs. The electrocardiogram (ECG) showed T wave inversion in the anterior (V1-V5) and inferior leads(D2-D3-AVF), the previous ECG was similar. Thoracic computed tomography (CT) was negative for pulmonary embolism and abnormal masses. We applied routine TTE for assessment of cardiac function and we saw a 1.5x2.8 cm mass between right ventricular trabeculae. There was also right ventricular dilatation 2+ tricuspid regurgitation (TR) and tricuspid annular plane systolic excursion (TAPSE) measured 8 mm. We performed cardiac MRI to clarify the diagnosis. A nodular lesion in the right ventricle with a hypointense presentation and no enhancement on late gadolinium enhancement imaging was discovered using cardiac MRI. Apixaban medication was initiated and the patient was invited for a control examination. İsolated RVT is extremely rare, even though the incidence of right ventricular thrombus is unknown, it has been associated with nephrotic syndrome, RV infarction, and particularly PE in the litarature. To the best of our knowledge, this is the first reported case isolated RV thrombus within severe chronic obstructive pulmonary disease.

Cor pulmonale is a clinical condition in which a pressure overload affects the right side of the heart, particularly the right ventricle (RV), causing variations in RV function and structure. PH, RV dilatation and RV longitudinal strain reduction associated with severe COPD in our case may have brought about thrombus formation. RV thrombus would be identified by transthrosic echocardiography, transeusophagial echocardiography, and cardiac magnetic resonance imaging. Despite the fact that TTE is the preferred method in clinical practice, diagnosing right ventricular thrombus is not always as easy as diagnosing LV thrombus. Newer studies suggest that CMR is the most specific technique for cardiac thrombi. Although CMR is more expensive than TTE, it may be employed in the differential diagnosis of cardiac mass or when high-mortality diseases such as RVT are suspected.

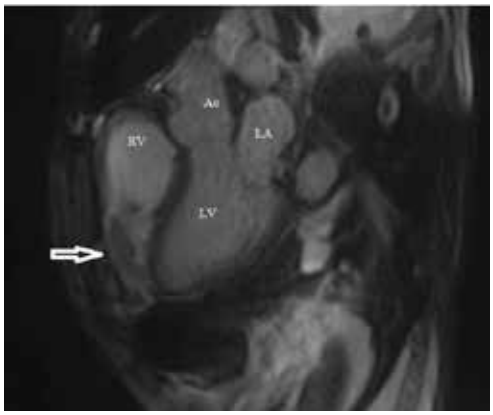
Keywords: Chronic obstructive pulmonary disease, Cor pulmonale, Right ventricular thrombus

Ekokardiyografi-1



Transtorasik Ekokardiyografide trombüs formasyonu

MR-1



Kardiyak MR'da trombüs formasyonu

OA-44 COIL EMBOLIZATION OF RIGHT CORONARY ARTERY FISTULA WHICH IS DRAINING TO LEFT VENTRICLE

Muhammet Mücahit Tiryaki, Sadık Volkan Emren, Gökhun Akkan, Ömer Pekerşen, Semih Aktürk, Hüseyin Sefa Ince, Mustafa Ozan Gürsoy, Cem Nazlı

Izmir Katip Celebi University, Ataturk Training and Research Hospital, Cardoliology Department

Introduction: A coronary artery fistula(CAF) is an abnormal connection between a coronary artery and cardiac chambers or another vessel (coronary artery, pulmonary artery, pulmonary veins, superior vena cava, coronary sinus). CAF is involved in 0.002% of general population and accounts for 0.4% of all cardiac malformation. Most of these fistulas originate from the right coronary artery and mostly end on the right side of the heart. Here we will present a case of CAF which is originated from right coronary artery(RCA) and drained into left ventricle(LV).

Case: A 53-year-old female patient was admitted to outpatient clinic of cardiology with a complaint of dyspnea, effort related chest pain. She had no previously known chronic illness otherwise smoking. Her Electrocardiogram (ECG) was in sinus rhythm and there was no ischemia related findings. In her medical history, it was learned that she underwent coronary angiography 1 year ago due to similar complaints, no critical stenosis was detected, but fistula was detected from RCA. For this reason, fistula research was performed with coronary computed tomography angiography(CCTA). In CCTA, the appearance of fistula opening into the LV cavity at the basal level was detected in the continuation of the posterolateral branch (PLB) of RCA. Her echocardiography revealed ejection fraction of 60% and there was no major valvular pathology. We planned a myocardial perfusion scintigraphy (MPS). As a result of MPS, reversible perfusion defect identified of the apical left ventricular myocardium. The patient's coronary angiography was repeated. Non-critical lesions were detected in left anterior descending artery(LAD) and circumflex artery(CX). In RCA, there was a plaque on the distal posterolateral branch that led to critical stenosis and a large fistula that opened to the ventricle immediately afterwards. Since the patient's anginal complaints continued and myocardial perfusion scintigraphy revealed ischemia, we decided to perform coil occlusion. We sent a floppy wire from RCA to LV and inserted the microcathater over the wire into the distal bed. Floppy wire was removed. The proximal of the mouth of the fistula through the microcathater was occluded with 2 coils of 3.0 mm * 8 cm and 2.0 mm * 4 cm. Control angiography showed no flow to the ventricle from RCA. During the follow-up period, it was observed that the patient's complaints decreased.

Discussion: In patients with angina CAF may be reason to distal coronary steal phenomenon. Spontaneous closure of coronary artery fistulas is rare. If patients are symptomatic or cause myocardial ischemia, surgical or transcatheter closure is recommended.

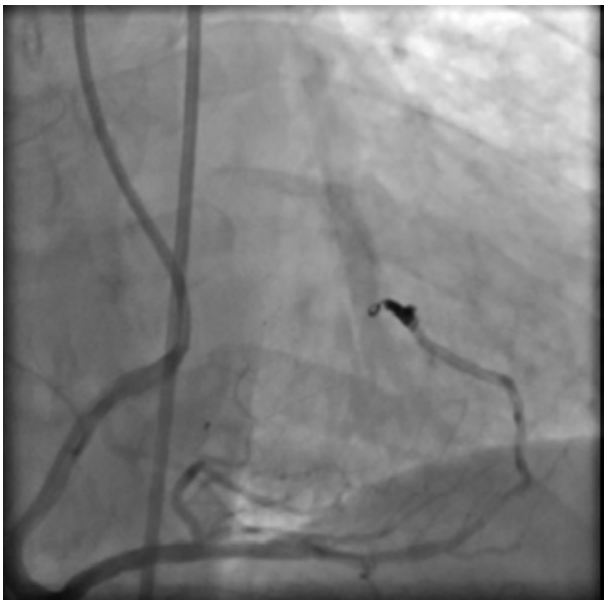
Result: In patients with CAF, if patients are symptomatic or cause myocardial ischemia, transcatheter closure can be performed in expert centers as a safe and comfortable way of intervention for the patient.

Keywords: Coronary artery fistula, Coil occlusion, Angiography

image-1

A coronary artery fistula between the right coronary artery and left ventricle

image-2



After the coil occlusion, there is no connection between the right coronary artery and left ventricle

OA-45 REVASCULARIZING CHRONIC TOTAL OCCLUSION OF SUBCLAVIAN ARTERY VIA BOTH FEMORAL AND BRACHIAL PATHWAY

Sinem Cakal, Halil Ibrahim Biter, Aydın Rodi Tosu, Mehmet Mustafa Can

Haseki Education and Research Hospital

Objective: Chronic obstructive lesions of the subclavian artery (SCA) lead to retrograde blood flow in the ipsilateral vertebral artery, which results in symptoms such as vertebrobasilar insufficiency, upper limb claudication, and transient ischemic attacks.Herein, we present a case of subclavian artery occlusion treated with antegrade and retrograde approaches

Case: A 61-year-old male patient with a histroy of hypertension, diabetes and LIMA-LAD bypass grafting presented with resistant angina pectoris and left arm claudication despite optimal medical treatment. Coronary angiography revaled occlusion of LAD, subclavian artery and 90% lesion in optus marginalis 1. The osteal high OM1 %90 lesion was treated with balloon angioplasty due to failure of stent delivery. Despite optimal medical treatment, the patient's arm and chest pain persisted. Thus, intervention to the subclavian artery was planned. Brachial artery puncture was performed under USG guidance. 6F COOK sheath was introduced with hydrophilic wire (0.035 inc) and Navicross support catheter0 (Terumo Corporation), accross the left subclavian artery LIMA bypass connection. Then, IMA catheter and hydrophilic wire support through the destination guiding sheath was drilled to the stump of subclavian artery occlusion via femoral pathway. However, this attempt was unsuccessful, so the operator switched to retrograde approach. Successful puncture of the the lesion was performed retrogradely and the wire crossed the true lumen. Predilatation with a 5*60*135mm balloon was performed to the distal of the LIMA-LAD bypass connection under bilateral imaging. An 8*37*135 mm peripheral stent was successfully implanted. The patient was discharged without complication at second day after the procedure.

Result: When traversing the occlusion via the femoral artery is unsuccessful, the guiding wire may succeed using a retrograde approach via the brachial access.

Conclusion: From the retrograde approach in subclavian artery occlusions, the catheter could be delivered over a shorter distance and could provide more stability and axial support by avoiding the more rigid proximal fibrous cap.

Keywords: LIMA-LAD bypass, Chronic Total Occlusion, subclavian occlusion

figure 1

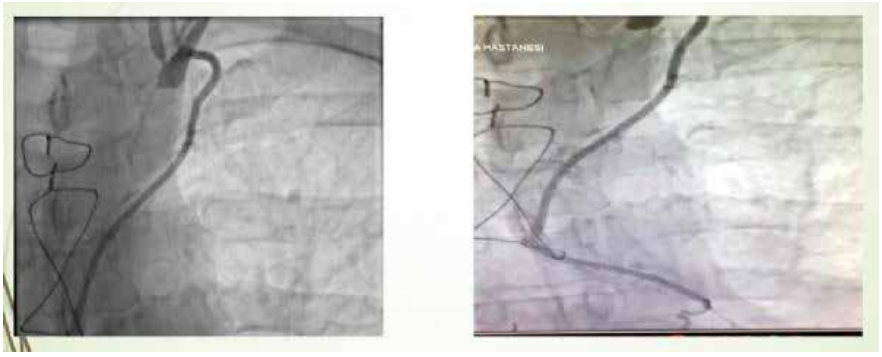


figure 2

OA-46 HEAVY AORTIC VALVE CALCIFICATION IN A YOUNG ADULT

Mutlu Cagan Sumerkan, Gunes Melike Dogan, Ozgur Selim Ser, Serhat Sigirci, Omer Alyan, Murat Kebaş

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Objective: Although degenerative calcific aortic valve stenosis is the most common valvular heart disease in Western World with increasing prevalence, rheumatic heart disease remains common in developing countries. One present, it inevitably progresses to moderate/severe aortic stenosis as related to high hazard rates of major cardiovascular events. Although calcification plays a fundamental role in the progression of valvular narrowing, the underlying initiation and progression of calcification remain unknown.

Case: Herein we present a 38-years-old male with newly diagnosed significant aortic calcification. The patient had no medical history. Transthoracic echocardiographic examination showed mild aortic, mitral, and tricuspid regurgitation, mild ascending aorta dilatation (3.8 cm), normal left-ventricular function (LVEF: %60), and heavily aortic valve calcification with hemodynamic changes. Suprasternal notch view is useful for measuring the degree of aortic stenosis by Doppler as the velocity of interrogation is relatively parallel. And, maximum doppler velocity obtained from the suprasternal view was higher in our patient. (Figure 1). In angiographic evaluation, coronary arteries were normal, and extensive aortic calcification was revealed.

Results: Although there are publications about valvular calcification, it is the first report of a young patient with heavily aortic calcification. Thus, the report shows very rare cases and depicts aortic stenosis related to extensive aortic calcification diagnosis at very early ages.

Conclusion: Aortic valve calcium load is an important parameter to identify patients with severe aortic stenosis among those with discordant grading on echocardiography. Even, the location of aortic valve calcification is more important than the total calcium load.

Also, determination of aortic stenosis at an early age is crucial for intervention before structural cardiac abnormalities develop. Furthermore significant aortic valve calcification is related to procedural (TAVI, valve replacement) complications. A load of calcification may impact the results of replacement therapy. Therefore assessment of aortic components including calcification is key in the planning of replacement procedure.

Keywords: Valve Stenosis, Aortic Valve Disease;. Angiography; Pathologic Calcification, 2D Echocardiography

Figure 1.

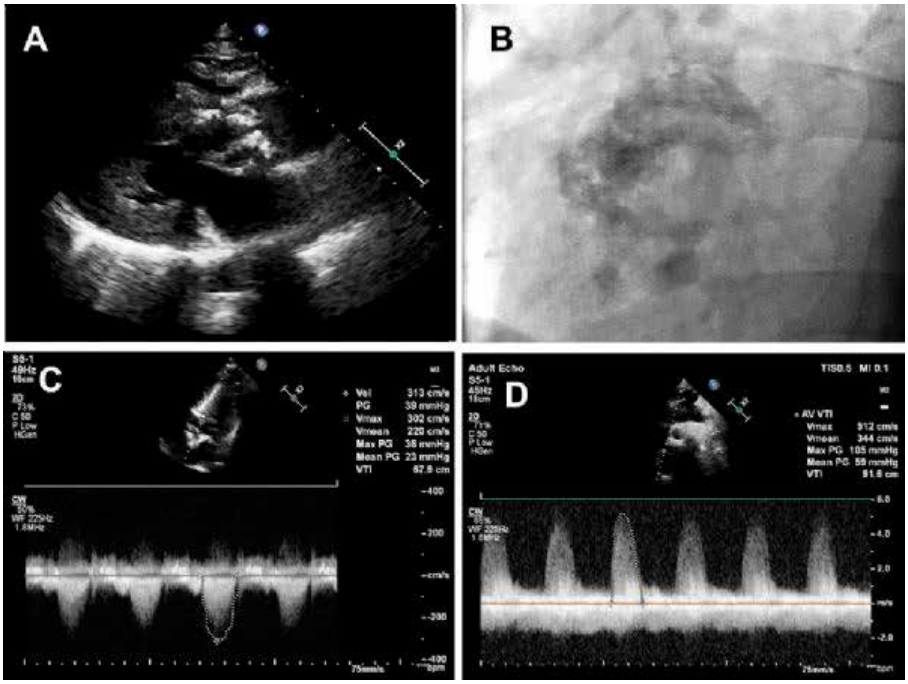

Figure 1. (A) Parasternal long-axis echocardiographic view depicting extensive aortic valve calcification with left ventricle wall thickness (Interventricular septum wall: 1.7 cm, LV posterior wall: 1.5 cm). (B) The angiographic view revealed significantly macro calcification of the aortic valve. (C) Apical four-chamber transthoracic echocardiographic examination depicting view with the appearance of aortic flow velocity with continuous-wave Doppler ultrasound. Moderate degree aortic stenosis calculated by the continuity equation (peak velocity: 3.2 m/s, mean pressure gradient: 23 mmHg). (D) Moreover, suprasternal echocardiographic examination showed severe degree aortic stenosis calculated by the continuity equation (peak velocity: 5.1 m/s, mean pressure gradient: 59 mmHg).

OA-47 ANOMALOUS BIVENTRICULAR PAPILLARY MUSCLE HYPERTROPHY WAS INCIDENTALLY FOUND IN A PATIENT WITH AN ATRIAL SEPTAL DEFECT

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Objective: Ventricular papillary muscles are small myocardial structures that play an important role in the functioning of the valves and ventricles. During diastole, they contract to open valves and prevent the valves from prolapsing. There is wide variation in the anatomy of papillary muscles and chordae tendineae. These variations can be asymptomatic or associated with valvular dysfunction. Papillary muscle thickening can be caused by hypertrophy (hypertension, hypertrophic cardiomyopathy) or infiltrative disorders (e.g., amyloidosis, sarcoidosis, iron deposition) and may involve one or both of the papillary muscles.

Although various types of anomalies of papillary muscles are common, only limited information regarding biventricular papillary muscle hypertrophy and their imaging is in the literature.

Case: Herein we present a 19-years-old female with uncommon papillary muscle hypertrophy and atrial septal defect. The patient had no medical history. Laboratory findings were normal and vital signs were stable. The echocardiographic examination showed thick biventricular papillary muscles (arrows). Neither left ventricle outflow tract nor intracavitary pressure gradient was observed. For distinguishing among thrombus, benign neoplasms, and malignant neoplasms requested cardiovascular magnetic resonance evaluation. Cardiovascular magnetic resonance depicted that the solitary papillary muscle is hypertrophied but the rest of the ventricular myocardium is spared (Figure 1). And MRI, transthoracic, and transesophageal echocardiography images showing the presence of a secundum atrial septal defect with color doppler left to right shunt flow across the interatrial septum between the left atrium and right atrium (Figure 2). Also, mild right heart dilatation, mild mitral and tricuspid regurgitation, atrial septal defect, and normal left-ventricular function (LVEF: %60) were revealed.

Conclusion: Although there are publications about left ventricle papillary muscle malformations, it is the first to report a patient with a right ventricle hypertrophic papillary muscle anomaly.

Locations of papillary muscle anomalies are important parameters. Especially those that are inserted directly into the leaflets may play a role in augmenting obstruction by restricting the mobility of the leaflets and/or tethering them toward the septum, thus narrowing the outflow tract. Also, may disrupt the function of the valve and cause regurgitation. Also, the determination of structural cardiac abnormalities is crucial for interventions, especially in pacemaker implantation or cardiac surgery procedures. Therefore, assessment of ventricle components, especially papillary muscles, plays a crucial role in planning cardiac procedures.

Keywords: Heart Septal Defects, Papillary Muscles, Echocardiography, Magnetic Resonance Imaging

Figure 1.

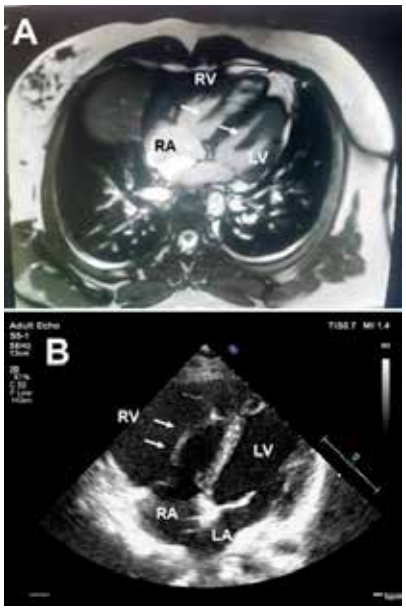

Figure 1. (A) Four chamber cardiovascular magnetic resonance images shows asymmetric elongation of papillary muscles (arrows). The cardiovascular magnetic resonance image depicted proportional hypertrophy of the papillary muscles (increased thickness and mass). Papillary muscle thicknesses are greater than the ventricles' free wall thicknesses. (B) Apical modified four-chamber transthoracic echocardiogram view depicting thick anomalous papillary muscle (arrows) arises from the moderator band and attaches to the tricuspid valve. Hypertrophy of the papillary muscles is not associated with myocardial hypertrophy. LA, left atrium; LV, left ventricle; RA, right atrium; RV, right ventricle.

Figure 2.

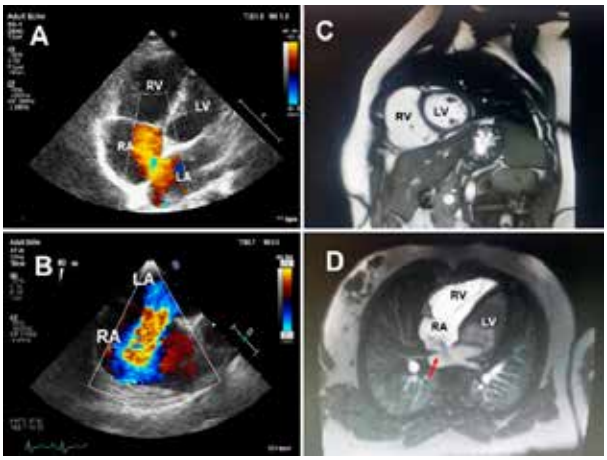

Figure 2. (A) The 2D echocardiographic view revealed a secundum defect with a left-to-right shunt in the middle of the atrial septum. (B) Transoesophageal echocardiogram demonstrated atrial septal defect shunt view (at a transducer angle of 90). (C) Short-axis cardiovascular magnetic resonance image shows right heart dilatation. (D) Contrast-enhanced MRI from LV long axis showed contrast transition from left to right atrium (arrow). LA, left atrium; LV, left ventricle; RA, right atrium; RV, right ventricle.

OA-48 ACUTE CEREBRAL EMBOLISM ASSOCIATED WITH LEFT VENTRICULAR THROMBUS IN A WOMAN WITH PERIPARTUM CARDIOMYOPATHY

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Objective: Peripartum cardiomyopathy (PPCM) is a type of non-ischemic cardiomyopathy with a high rate of thromboembolic events including intraventricular thrombi. Although guidelines recommend thrombolytic therapy in acute ischemic stroke, the efficacy and safety of thrombolytic therapy in cerebral embolism accompanied by cardiac thrombus is controversial. Herein, we report a case of a 23-year-old female with PPCM along with acute serebral embolism due to a highly mobile left ventricular (LV) thrombus.

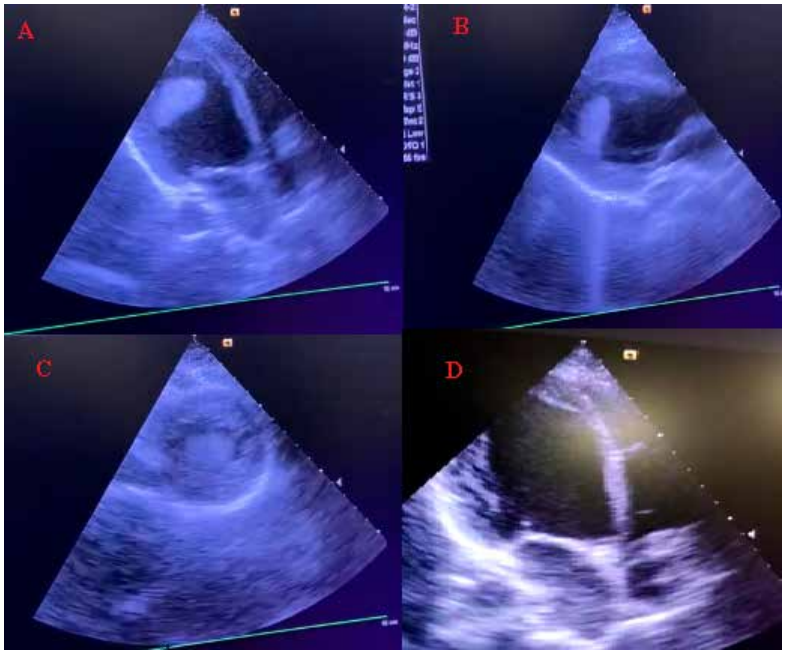
Methods: A 23-year-old female presented to our emergency department for evaluation of new onset chest pain. She had delivered a healthy baby 1 weeks ago through cesarean section. Initial blood parameters including complete blood count, renal function test and liver function tests were within normal range, but cardiac troponin I level was mildly above normal (88 ng/L). Electrocardiogram showed sinus tachycardia. Transthoracic echocardiography (TTE) (Fig. 1) showed dilatation of all four cardiac chambers and global hypokinesia of the LV with an ejection fraction (EF) less than 30%. There was a highly mobile pedunculated hypoechoic mass (3.8×2.5 cm) attached to the inferolateral wall protruding into the LV cavity. Hence the diagnosis of PPCM with intra-cardiac thrombus was considered. Because of its narrow pedicle and high mobility, the risk of embolization was considered to be very high and the patient was advised to undergo surgical removal of the thrombus. After 20 minutes following the basal examination, she developed global aphasia and right hemiplegia. Her magnetic resonance image of the brain showed that diffusion restriction in the left pre-central gyrus and the diagnosis was thought to be acute cerebral embolism in the light of the findings. Therefore, the patient was started on recombinant tissue plasminogen activator (tPA) infusion. tPA was administered as an intravenous bolus of 0.9 mg/kg within one minute, and the remaining dose was administered as a slow intravenous infusion over 90 minutes. No complications were observed during or after thrombolytic therapy. Repeat TTE two hours later (Fig. 1) showed complete dissolution of the thrombus as well as an improvement in LVEF (40%). Three hours after the thrombolytic infusion was finished, the aphasia disappeared and the motor loss of the right extremity partially recovered the next day.

Results: The patient was discharged on the 7th day of admission with heart failure treatment and warfarin. Control TTE in the 1st month showed improvement of ventricular diameters, and an EF of 50%.

Conclusion: Management of left ventricular mobile thrombus may be cumbersome. Although surgical thrombectomy is justified when LV thrombus becomes mobile, our patient responded well to thrombolytic therapy. However, the use of thrombolytic therapy in this situation may potentially facilitate cardiac thrombus disintegration and cause further embolization. Thus, the benefit-harm ratio should be well calculated.

Keywords: peripartum cardiomyopathy, thrombolytic therapy, thrombus

Fig. 1



Two dimensional transthoracic echocardiography. A large single pedunculated thrombus can be seen in the LV cavity in apical four chamber (A), parasternal long axis (B), and parasternal short axis (C) views. Follow-up echocardiography at two hours after the onset of thrombolytic therapy showed complete resolution of the intracardiac thrombus (D).

OA-49 MULTIPLE COMPLICATIONS DURING TAVI: CORONARY OCCLUSION, BALLOON FRACTURE, FEMORAL ARTERY OCCLUSION

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Objective: Coronary obstruction is a rare but life-threatening complication in patients undergoing transcatheter aortic valve replacement (TAVI).Early coronary obstruction occurs more frequently in patients treated with a balloon-expandable valve than those treated with a self-expandable valve. We report here an unexprected case of left main coronary artery (LMCA) occlusion following TAVI that caused cardiac arrest andwas managed successfully with emergency percutaneous coronary intervention (PCI) in the absence of coronary occlusion anatomical measurements

Method: A 77-year-old woman was scheduled for transfemoral TAVI (Society of Thoracic Surgeons score, 6%). The echocardiographic study showed a moderately calcified valve with max/mean gradient of 81/44 mmHg area of 0.9 cm2. The aortic root measurements were: Annulus diameter, 19*24 mm; diameter of Sinus of valsalva: 29 mm and height of the left ostium:10.3 mm. A 29 mm Evolute R was implanted succesfully.Early after, the patient developed cardiac arrest complicated by left main coronary occlusion (Figure 1). Under successful CPR duration of 30 minutes,3.0 *38 Xience Pro was deployed in left main coronary artery. Unfortunately, shaft of balloon catheter was fractured and prolapsed out of guiding catheter while withdrawal of balloon (Figure 2). Trapper balloon method was used to retrieve the broken balloon shaft. Unfortunately, another complication was occured during percutaneous delivery of suture by Proglide leading to femoral artery occlusion. Occlusion was crossed with Microcatheter+ Astato wire from ipsilateral approach and 7*60 mmself expandable stent was implanted due to failure of balloon dilatation (Figure 2). Due to hemodynamic instability and inotropic therapy, ECMO device was used for rescue and she was transferred to intensive care unit. The patient was able to weaned from ECMO 10 days after the procedure. She received hemodialysis treatment during the follow-up period. Enhanced physical rehabilitation was performed during the recovery period in cardiology care unit. She was discharged at 27th day after TAVI without neurological deficit and with moderate renal insufficiancy (Preoperative Creatinin level 0,9 mg/dl, Creatinin level at discharge 1,6 mg/dl).

Results: Even if the Medtronic CoreValve Evolut R probably works best with low coronary heights due to the typical configuration of its frame (a certain coronary height is no longer recommended), coronary occlusion might occur as shown in our case.

Conclusion: Relatively shorter left coronary ostium height and bulky calcificication on aortic leaflet caused left main coronary occlusion in our case. In case of severe hypotension, ST segment changes, ventricular arrhythmias, and sudden cardiac arrest emergency coronary angiography must be performed and if LMCA occlusion is detected this must be treated with emergent angioplasty and stenting. Moreover, VA-ECMO may minimize the lethal complication of TAVI procedure.

Keywords: TAVI, vascular complication, coronary artery disease, vascular closure device

Figure 1

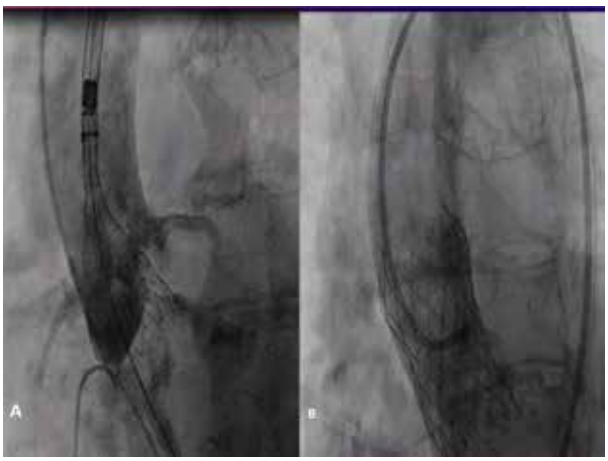
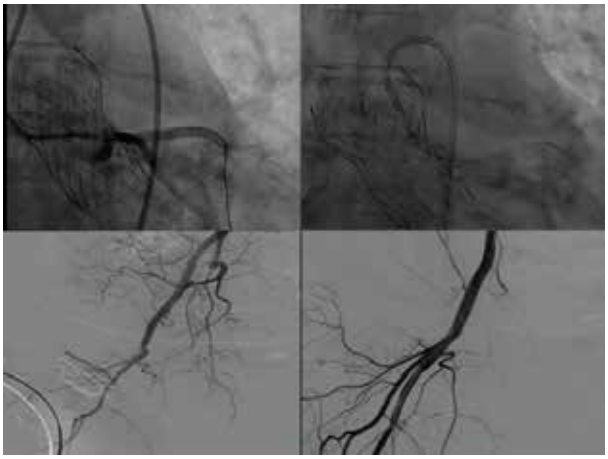


Figure 2



OA-50 THE IMPACT OF FIGURE-OF-EIGHT SUTURE FOR VENOUS HEMOSTASIS IN FULLY ANTICOAGULATED PATIENTS AFTER CRYOBALLOON ATRIAL FIBRILLATION ABLATION: A SINGLE CENTER EXPERIENCE

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Background: Immediate hemostasis following removal of femoral venous sheaths is essential to prevent access site complications after atrial fibrillation (AF) ablation. Despite various precautions to achieve complete hemostasis in a safe and effective manner, no standard approach is present yet.

Objective: The aim of this study was to share our experience with the efficacy and safety of figure-of-eight (FoE) suture for immediate venous hemostasis after cryoballoon (CB) AF ablation.

Methods: We retrieved our data about patients undergoing CB AF ablation procedure at our center between January 2021 and January 2022. All interventions were performed with uninterrupted oral anticoagulation. Five thousand IU intravenous heparin was given prior to transeptal punction. Then weight-based unfractionated heparin boluses have been repeatedly administered to maintain the activated clotting time (ACT) of 300–350 s. After CB ablation, FoE suture was applied for immediate hemostasis of 15 and 7 Fr venous sheats after the ablation procedure without protamine administration while the patient was in the catheter laboratory. Patients laid flat for 4 hours with sandbag on the right groin. Then sandbag was removed and patients were mobilized. Suture was removed four hours after the mobilization.

Results: There were 97 patients (mean age 59.60±11.51) in study group. Immediate haemostasis was achieved in 90.7% (n=88) of patients. Light manual compression was required in 7 patients (7.2%) due to looseness of the knot. Acute failure of haemostasis due to snapping of the knot was seen in 2.1% (n=2) of patient. Only one patient (1%) had hematoma that resolved spontaneously and no other access site complication has been occurred. Baseline characteristics, laboratory findings and procedural complications were shown in tables 1 and 2.

Conclusion: The FoE suture is an effective, safe and cost-saving technique to achieve immediate hemostasis after removal of femoral venous sheaths in patients undergoing AF cryoablation.

Keywords: Atrial Fibrillation, Cryoballoon Ablation, Venous Hemostasis

Table 1

Table 1. Baseline Characteristics and Laboratory Findings

Variables	(n=97)
Baseline characteristics	
Age (years), mean (SD)	59.60±11.51
Gender (female), n (%)	46 (47.4%)
Diabetes Mellitus, n (%)	30 (30.9%)
Atrial fibrillation (paroxysmal), n (%)	55 (56.7%)
Hypertension, n (%)	70 (72.1%)
Hyperlipidemia, (%)	35 (36.1%)
Coronary Artery Disease, n (%)	50(51.5%)
Congestive Heart Failure, n (%)	6 (6.2%)
Cerebrovascular Disease, n (%)	4 (4.1%)
Chronic Renal Disease, n (%)	4 (4.1%)
Thyroid Dysfunction, n (%)	9 (9.3%)
Current Smoker, n (%)	32 (32.9%)
Body Mass Index(kg/m^2)	29.43±4.76
Left ventricular ejection fraction (%)	61.01±7.07
Left atrial diameter (mm), mean (SD)	41.81±5.42
CHADVASC Score, mean (SD)	1.93±1.50
HASBLED Score, mean (SD)	0.99±0.84
Laboratory Findings	
Creatinine (mg/dl; SD)	0.88±0.19
WBC (x10^3 /µL; SD)	8.27±1.99
Hemoglobin (g/dL; SD)	13.13±1.48
Platelets (x10^3 /µL; SD)	254.87±55.72
ALT(U/L)	20.37±7.23
AST (U/L)	19.97±6.27
Medications	
Acetylsalicylic Acid, n (%)	4 (4.1%)
Clopidogrel, n (%)	7 (7.2%)
NOAC, n (%)	77 (79.4%)
Warfarin, n (%)	4 (4.1%)

*Continues variables are reported (mean±SD). Categorical variables are reported n (%).
Abbreviations: ALT; Alanine transaminase, AST; Aspartate transaminase, NOAC; Novel oral anticoagulants, WBC; White Blood Cell.

Baseline Characteristics and Laboratory Findings

Table 2

Table 2. Procedural Complications

Variables	(n=97)
Pericardial complications, n (%)	**1(1%)**
Pericardial tamponade, n (%)	0(0%)
Pericardial effusion, n (%)	1(1%)
Access site complications, n (%)	**1(1%)**
Retroperitoneal bleeding, n (%)	0(0%)
Arteriovenous fistula, n (%)	0(0%)
Pseudoaneurysm, n (%)	0(0%)
Hematoma (spontaneous resolution), n (%)	1(1%)
Local subcutaneous infection, n (%)	0(0%)
Failure of haemostasis, n (%)	**9(9.3%)**
Acute failure due to snapping of the knot, n (%)	2(2.1%)
Light manual pressure due to looseness of the knot, n (%)	7 (7.2%)
*Categorical variables are reported n (%).	

Procedural Complications

OA-51 EVALUATION OF INDEX OF CARDIAC ELECTROPHYSIOLOGICAL BALANCE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Objective: One of the most important causes of morbidity and mortality in chronic obstructive pulmonary disease (COPD) patients is ventricular arrhythmias. The index of cardio-electrophysiological balance (iCEB) can predict malignant ventricular arrhythmias. In this study, we investigated whether iCEB is of value in COPD patients without heart failure.

Method: Our study included 139 patients with COPD and 60 control subjects matched for age, gender, and comorbidity. The patients' demographics, medications, laboratory, spirometry, and electrocardiographic (ECG) data were analyzed. Heart rate, QRS, QT, QTc, and Tp-e values were analyzed in ECG. The iCEB value was obtained by dividing the QT interval by the QRS duration. COPD and control groups were compared. The parameters affecting iCEB were examined.

Results: The median age of COPD patients included in the study was 61 years (55-69), and 130 (93.5%) were male. The FEV1/FVC ratio of COPD patients was 58% (51-65%). Stroke, short-acting beta2 agonists, long-acting beta2-agonists, long-acting muscarinic antagonists, theophylline, hemoglobin, heart rate, modified Medical Research Council dyspnea scale (mMRC), Global Initiative for Chronic Obstructive Lung Disease criteria (GOLD), COPD assessment test (CAT) scores (p=0.034, p= 0.075, p=0.020, p=0.014, p=0.005, p=0.008, p<0.001, p=0.040, p=0.023, and p=0.036, respectively) correlated with iCEB. Multivariable regression analysis showed that iCEB was inversely related to heart rate.

Conclusion: In this study, we found that the iCEB parameter was lower in COPD patients without heart failure compared to the control group, and it was associated with an increase in heart rate. Our findings may suggest an increased susceptibility to malignant ventricular arrhythmias non-Torsades de Pointes mediated in COPD patients.

Keywords: index of cardiac lectrophysiological balance, Chronic obstructive pulmonary disease, ventricular arrhythmias

Baseline characteristics of control and COPD groups

Variables	Control (n:60)	COPD (n:139)	p
Age, (years, median (IQR))	57.5(55.0-60.0)	61.0(55.0-69.0)	0.119
Gender, (male, n/%)	54(90)	130(93.5)	0.389
Diabetes mellitus, (n/%)	9(15.0)	19(13.7)	0.483
Hypertension, (n/%)	15(25.0)	45(32.4)	0.312
Stroke, (n/%)	0(0)	3(2.2)	0.253
RAAS inhibitors, n (%)	8(13.3)	43(30.9)	0.009
Calcium channel blockers, n (%)	8(13.3)	30(21.6)	0.175
Beta blockers, n (%)	16(26.7)	16(11.5)	0.008
Diuretics, n (%)	6(10.0)	4(2.9)	0.035
Oral antidiabetic, n(%)	9(15.0)	19(13.7)	0.850
Insulin, n (%)	0(0)	4(2.9)	0.185
Creatinine, mg/dl	0.84(0.74-0.98)	0.85(0.77-1.00)	0.234
Potassium, mmol/l	4.31(4.20-4.66)	4.30(4.10-4.60)	0.263
Calcium, mmol/l	9.15(9.00-9.52)	9.10(8.90-9.50)	0.121
Hemoglobin, g/dl	14.1(13.4-14.4)	15.0(14.3-16.2)	<0.001
Heart rate, beats/min	73.0(69.0-80.0)	76.0(69.0-93.0)	0.002
QRS interval (msn)	89.0(82.0-95.0)	90.0(82.0-100.0)	0.384
QT interval (msn)	373.0(366.0-395.0)	366.0(340.0-388.0)	0.006
QTc interval (msn)	404.0(397.0-422.0)	408.0(393.0-426.0)	0.725
İCEB (QT/QRS ratio)	4.1685(4.0612-4.6951)	4.0213(3.6667-4.4054)	0.005
Tp-e interval (msn)	99.0(82.0-118.0)	99.0(88.0-111.0)	0.849

OA-52 TYPICAL ELECTROCARDIOGRAPHIC AND CLINICAL FEATURES OF PROPAFENONE TOXICITY WITHOUT STRUCTURAL HEART DISEASE WITH STANDARD DOSE

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Medipol mega university hospital

Objective: Propafenone is a group 1C antiarrhytmic agent and in case of excessive intake, several deleterious effects on cardiovascular, gastrointestinal, nervous, hematological and dermatological systems could be detected. Wide complex tachycardia, right bundle branch blocks, first degree AV block, prolonged QT interval, and generalized seizures can be observed during toxication. We present a case of acute propafenone toxicity in which a standart dose (900 mg) was used for medical cardioversion of acute atrial fibrillation.

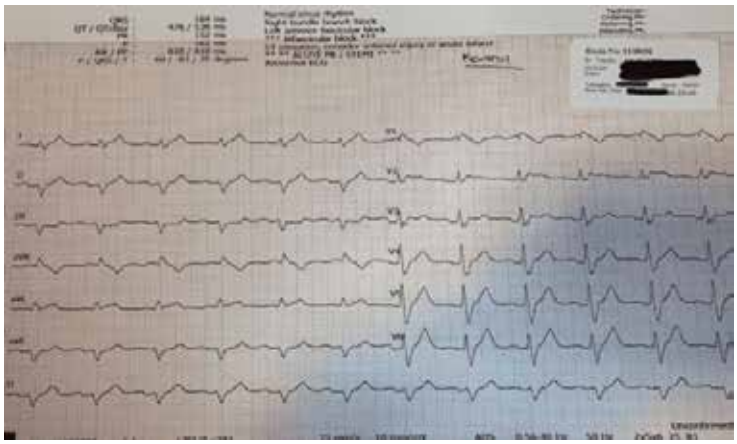
Case: A 59-year-old male diagnosed with acute atrial fibrillation presented to our emergency department 150 beats/min. Echocardiography findings were normal. A single oral loading of 900 mg propafenon was given for medical cardioversion. Two hours after administration, the patient had overt hypotension with a systolic blood pressure of 50 mmHg to 60 mmHg and sinus rhythm at a heart rate of 74 beats/min which was managed with aggresive fluid resuscitation and dopamine infusion. Control ECG showed sinus rhythm with right bundle branch block (RBBB), a QRS duration of 164 ms and a corrected QT interval of 528 ms suggesting propafenone toxicity (Figure 1) so intravenous sodium bicarbonate was administered. Following four ampules of sodium bicarbonate, QRS duration narrowed to 94 ms (Figure 2) and mean arterial pressure increased to 110 mmHg within 2 hours. He was discharged home on metoprolol 50 mg, and rivaroxaban 20 mg in good clinical status

Result: Propafenone may be harmful even with therapeutic doses (b.i.d or t.i.d in a dose range of 150-900 milligrams) and without any structural heart disease.

Conclusion: Cardiologist should be aware of propafone toxicity even with standart doses and in case of declining hemodynamic status and ECG abnormalities, dopamine, epinephrine and norepinephrine for hypotension as supportive care and sodium bicarbonate solution should be administered.

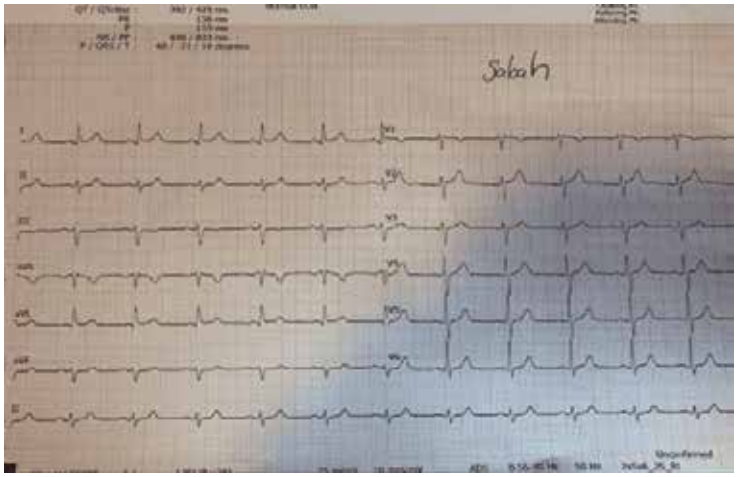
Keywords: propafenone toxicity, electrocardiography, atrial fibrillation, medical cardioversion

figure-1



ECG interpreted just after patient's clinical worsening

figure-2



Final ECG revealed normal sinus rhythm after reversal of propafenone toxicity

OA-54 THE EFFECT OF COVID-19 ON THE INCIDENCE OF CORONARY ARTERY DISEASE: EVALUATION WITH SPECT-MPI

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Aim: It is known that COVID-19, which continues to be an important cause of morbidity and mortality all over the world, causes cardiovascular events in the acute phase of the disease, and in the post-covid period. In one study, it was found that the risk of developing myocardial infarction, heart failure and arrhythmia increased threefold in patients who recovered. The number of patients who applied to cardiology outpatient clinics with chest pain and dyspnea after recovering from COVID-19 has increased and using single photon emission computed tomography (SPECT) myocardial perfusion imaging (MPI) is prefered to investigate ischemia in these patients. In this study, we aimed to examine the relationship between ischemia detected by using SPECT-MPI and incidence of coronary artery diseasesin patients with the history of COVID-19 who applied to the cardiology outpatient clinic with chest pain and/or dyspnea after recovery.

Methods: In this single-center retrospective study, the data of patients who applied to cardiology outpatient clinics with chest pain and/or shortness of breath between November 1, 2021 and April 1, 2022 were scanned. The data of patients with low cardiovascular risk, ischemia detected in SPECT-MPI and undergoing coronary angiography were evaluated. Systematic Coronary Risk Assessment (SCORE) was used for Coronary Risk assessment. Two different groups, each consisting of 40 patients, were formed according to whether there was a history of active symptomatic COVID-19 infection in the last 6 months. Patients with a history of coronary artery disease, severe valve disease, heart failure, and those who could not achieve optimal MPI were excluded from the study. The incidence of coronary artery disease was compared between groups.

Results: There was no statistically significant difference between the groups in terms of age, gender, hypertension, hyperlipidemia, diabetes and smoking (for all $p>0.05$). The incidence of coronary artery lesions in the COVID-19 positive group was found to be statistically significantly higher ($p<0.05$). In univariate logistic regression analysis, history of COVID-19, elevated LDL, and elevated systolic blood pressure were found to be predictors of the presence of coronary artery lesion ($p= 0.024$, $p=0.039$ and $p = 0.035$, respectively).

Conclusion: COVID-19 causes many cardiovascular complications, including coronary artery disease. This increase in the incidence of coronary artery disease is associated with factors that contribute to atherosclerosis, such as virus-induced endothelial damage, inflammation, and coagulation disorder. In our study, the frequency of coronary artery disease in COVID-19 positive patients with ischemia, found in MPS, to be found higher in coronery angiograpy than in COVID-19 negative patients. In conclusion, the use of MPS can be considered as a reliable method for the detection of coronary artery disease in patients presenting with cardiovascular symptoms in the late COVID period.

Keywords: COVID-19, Radionuclide imaging, Perfusion, Coronary artery lesion

Demographics and clinical characteristics of patients in the study and control groups

	Study Group	Control Group	P value
Age Mean ± SD	51.18 ± 7.27	51.44 ± 7.42	0.97
Male gender n (%)	29 (72.5)	24 (67.5)	0.08
Hypertension n (%)	6 (15)	7 (17.5)	0.84
Diabetes n (%)	7 (17.5)	6 (15)	0.84
Hyperlipidemia n (%)	10 (25)	7 (17.5)	0.05
Smoking n (%)	26 (65)	24 (60)	0.17
Obesity n (%)	9 (22.5)	6(15)	0.34
Chest pain n (%)	32 (80)	35 (87.5)	0.044
Dispnea n (%)	36 (90)	29 (72.5)	<0.001
Positive CAD rate n (%)	32 (80)	26 (65)	0.021

Coronary artery disease;CAD

OA-55 ARE LEFT VENTRICULAR REGIONAL WALL MOTION ABNORMALITIES ON TRANSTHORACIC ECHOCARDIOGRAPHY A PREDICTOR TO PERFORM CORONARY ANGIOGRAPHY IN PATIENTS WITH NEW ONSET HEART FAILURE?

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[2]*Ankara Şehir Hastanesi*

Introduction: Heart failure is one of the leading cause of morbidity and mortality worldwide. There are several underlying etiologic factors and coronary artery disease is one of the important causes. Early detection and treating underlying ischemic cardiovascular disease have a vital impact in patients admitted with heart failure. Coronary angiography is used to diagnose ischemic cardiovascular disease. This study aimed to evaluate relationship between type of wall motion abnormalities on transthoracic echocardiography and ischemic cardiovascular disease in patients newly diagnosed with heart failure.

Patients and Methods: We included 70 patients (51 males, 19 females, mean age 59±11.7 years) who admitted to hospital with new onset heart failure symptoms without angina, ischemic findings or known coronary artery disease. Left ventricular ejection fraction and wall motion abnormality type were evaluated by transthoracic echocardiography. Coronary angiography was performed to detect ischemic heart failure. Association between wall motion abnormality type and ischemic heart failure was analyzed.

Results: According to transthoracic echocardiography findings, 23 patients (32.9%) had regional wall motion abnormality. 4 out of 23 patients (17.4%) had ischemic cardiomyopathy. Similarly, 8 out of 47 patients with global wall motion abnormality (17%) had ischemic cardiomyopathy (p=1.000). We couldn't find statistically significant relation between wall motion abnormality type and ischemic cardiomyopathy.

Conclusion: According to the results of our study, wall motion abnormality type that is detected by transthoracic echocardiography isn't a predictor for ischemic cardiomyopathy. Other non-invasive diagnostic modalities are needed to evaluate for underlying coronary artery disease in patients with new onset heart failure.

Keywords: heart failure, ischemic cardiomyopathy, wall motion abnormality

OA-58 PREDICTORS OF MORTALITY IN PATIENTS WITH NON-ST SEGMENT ELEVATION ACUTE CORONARY SYNDROMES: A SINGLE CENTER EXPERIENCE WITH A LONG-TERM FOLLOW-UP

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Objective: With the improvements in the management of the patients with non-ST segment elevation acute coronary syndromes (NSTE-ACS), early mortality from this disease decreased in the recent years. For that reason prediction of long term mortality is important to employ more guideline-directed care to these patients. The aim of this study was to define predictors of long-term all-cause mortality in patients with NSTE-ACS.

Method: Patients hospitalized for NSTE-ACS and underwent coronary angiography between 2012 and 2013 were enrolled in this single-center retrospective study. Final study population consisted of 929 patients without prior coronary artery disease, malignancy, end-stage renal disease and severe systemic disease. Demographic, clinical, laboratory and angiographic parameters were collected from medical records. Primary outcome was all-cause mortality. Median follow-up time was 8 (7.6-8.4) years. Patients were divided into two according to presence of outcome and baseline parameters were compared among groups. Multivariable adjusted Cox-regression analysis was performed to determine predictors of long-term all-cause mortality.

Results: The mortality rate was 19.8% in the study group. Patients with the outcome were significantly older. Female gender, non-ST segment elevation myocardial infarction, hypertension and diabetes mellitus were more frequently observed whereas smoking was less frequent in mortality (+) group. Significantly lower body mass index, diastolic blood pressure and higher heart rate and systolic blood pressure at admission were observed in patients with mortality. Admission glucose, creatinine and troponin levels were significantly higher and triglyceride, free T3, thyroid stimulating hormone and hemoglobin levels were significantly lower in mortality (+) group. Non-critical and single-vessel disease were more common in mortality (-) group. Left main coronary artery diasease and multi-vessel diasese (MVD) were observed more in mortality (+) group. Percutaneous coronary artery intervention was performed more in mortality (-) group and coronary artery bypass grafting was performed more in mortality (+) group (Table 1). Cox regression analysis revealed age (HR: 2.94, 95% CI: 1.99-4.36, p=0.01) and MVD (HR: 1.99, 95% CI: 1.42-2.80, p<0.001) as independent predictors of long-term mortality (Figure 1). When we analyzed the interraction effect of age and MVD, we observed that MVD increases mortality linearly with increasing age while mortality increases non-linearly after 60 years of age in patients without MVD (Figure 2).

Conclusion: In this study, we demonstrated that age and presence of MVD are independently associated with long-term all-cause mortality in patients with NSTE-ACS. MVD increases mortality linearly with increasing age while in patients without MVD mortality increases non-linearly after 60 years of age in this patient group.

Keywords: Non-ST segment elevation acute coronary syndrome, long-term mortality, multi-vessel disease, age

Figure 1. Predictors of long-term mortality by Cox regression analysis.

Variables	HR (95 % CI)	*p* value
Gender (female)	1.01 (0.67-1.51)	0.95
Age (years)	2.94 (1.99-4.36)	**0.01**
Multi-vessel disease	1.99 (1.42-2.80)	**<0.001**
Diabetes mellitus	1.18 (0.85-1.64)	0.33
Hypertension	0.96 (0.68-1.36)	0.81
Creatinine (mg/dL)	1.28 (0.98-1.66)	0.07
LDL cholesterol (mg/dL)	0.95 (0.79-1.13)	0.57
Hemoglobin (g/dL)	0.8 (0.62-1.02)	0.06

Abbreviations: CI= Confidence interval; HR= Hazard ratio

Figure 2. Hazard ratio plot showing the interraction effect of age and multi-vessel disease (MVD).

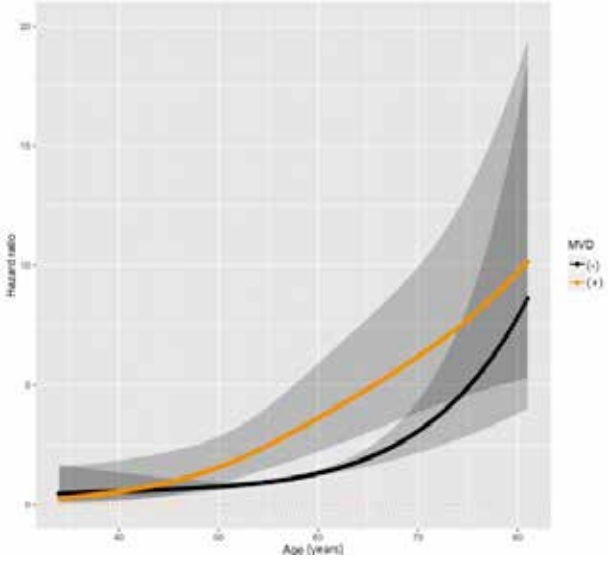

Table. Baseline characteristics of the study population by the presence of long-term mortality.

	Overall population (n=929)	Mortality(+) (n=184)	Mortality (-) (n=745)	p value
Age (years)	56 (48-64)	66 (58.3-73)	54 (47-61)	<0.000
Gender (Female)	278 (29.9)	69 (37.5)	209 (28.1)	0.012
NSTEMI	773 (83.2)	163 (88.6)	610 (81.9)	0.029
Hypertension	501 (53.9)	123 (66.8)	378 (50.7)	<0.000
Diabetes Mellitus	267 (28.7)	69 (37.5)	198 (26.6)	0.003
Hyperlipidemia	146 (15.7)	36 (19.6)	110 (14.8)	0.109
Smoking	530 (57.1)	86 (46.7)	444 (59.6)	0.002
Family history of CAD	333 (35.8)	63 (34.2)	270 (36.2)	0.612
BMI (kg/m2)	27.7 (24.9-30.8)	26.4 (24.2-29.4)	27.8 (25.1-31)	0.011
Heart rate (/min)	78 (67-88)	81 (68-94)	75 (66-88)	0.004
SBP (mmHg)	139 (125-157)	144 (125-168)	138 (125-155)	0.035
DBP (mmHg)	77 (68-86)	73 (63-84)	77 (68-88)	0.003
Troponin (ng/mL)	0.84 (0.16-4.58)	1.04 (0.29-5.88)	0.72 (0.14-4.23)	0.017
CK-MB (U/L)	26 (16-43)	30 (16-50)	25 (16-41)	0.138
Glucose (mg/dL)	112 (97-152)	125.5 (101.5-193)	109 (96-146)	<0.000
Creatinine (mg/dL)	0.9 (0.73-1)	0.9 (0.8-1.1)	0.9 (0.7-1)	<0.000
Tchol (mg/dL)	185 (161-212)	181 (156-214)	185 (161.3-211)	0.33
LDL-chol (mg/dL)	109 (90-132)	109 (89-131)	110 (90-132)	0.71
HDL-chol (mg/dL)	37 (32-44)	36 (31-43)	37 (32-44)	0.94
Triglyceride (mg/dL)	157 (118-225)	144 (102-232)	158 (121-223)	0.019
FT3 (pg/mL)	2.88 (2.62-3.13)	2.75 (2.48-3.06)	2.9 (2.64-3.16)	<0.000
TSH (µIU/mL)	1.34 (0.85-2.05)	1.24 (0.72-1.99)	1.37 (0.88-2.05)	0.032
WBC (x103/µL)	8.6 (7.2-10.5)	8.8 (7.3-10.6)	8.6 (7.2-10.5)	0.75
Hemoglobin (g/dL)	14.1 (13-15.2)	13.8 (12.4-14.7)	14.3 (13.1-15.3)	<0.000
Platelet (x103/µL)	247 (213-291.8)	242.5 (208-288.5)	248 (214-295)	0.25
Anemia	112 (12.1)	36 (19.6)	76 (10.3)	0.001
CAG results:				
Normal	43 (4.6)	4 (2.2)	39 (5.2)	0.08
Slow flow	41 (4.4)	4 (2.2)	37 (5)	0.11
Non-critical plaques	149 (16)	19 (10.3)	130 (17.4)	0.018
Single vessel disease	268 (28.8)	36 (19.6)	232 (31.1)	0.002
Two-vessel disease	231 (24.9)	58 (31.5)	173 (23.2)	0.02
Three-vessel disease	197 (21.2)	63 (34.2)	134 (18)	<0.000
LMCA lesion	64 (6.9)	31 (16.8)	33 (4.4)	<0.000
Multi-vessel disease	428 (46.1)	121 (65.8)	307 (41.2)	<0.000
Treatment:				
Medical	325 (35)	66 (35.9)	259 (34.8)	0.78
PCI	342 (36.8)	54 (29.3)	288 (38.7)	0.019
CABG	250 (26.9)	61 (33.2)	189 (25.4)	0.033
Failed PCI	12 (1.3)	3 (1.6)	9 (1.2)	0.71

Categorical data are presented as numbers (percentages) and continuous data are presented as median (interquartile range). Abbreviations: BMI= Body mass index; CABG= Coronary artery bypass grafting; CAD= Coronary artery disease; CAG= Coronary angiography; CK-MB= Creatine kinase-MB; DBP= Diastolic blood pressure; FT3= Free Triiodothyronine; HDL-chol; High-density lipoprotein cholesterol; LDL-chol= Low-density lipoprotein cholesterol; LMCA= Left main coronary artery; NSTEMI= Non-ST segment elevation myocardial infarction; PCI= Percutaneous coronary intervention; SBP= Systolic blood pressure; Tchol= Total cholesterol; TSH= Thyroid stimulating hormone; WBC= White blood cell.

OA-59 TRIGLYCERIDE-GLUCOSE INDEX PREDICTS CARDIOGENIC SHOCK AT ADMISSION IN NON-DIABETIC PATIENTS WITH ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION

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Objective: Triglyceride-glucose (TyG) index, calculated from fasting triglyceride and blood glucose, is a simple marker of insulin resistance and recently have shown to be associated with increased major adverse cardiac events in patients with ST-segment elevation myocardial infarction (STEMI). Cardiogenic shock (CS), complicating 5-10% of the cases, is a major cause of morbidity and mortality in patients with STEMI. In this study, we aimed to evaluate TyG index, baseline clinical and laboratory parameters to predict cardiogenic shock at admission in non-diabetic patients with STEMI.

Method: Non-diabetic patients admitted with STEMI and underwent primary percutaneous coronary intervention between 06.2017 and 12.2018 were retrospectively enrolled in this study. Demographic, clinical and laboratory parameters were collected from medical records. CS was defined as systolic blood pressure <90 mm Hg for >= 1 hour not responsive to fluid administration alone, thought to be secondary to cardiac dysfunction, and associated with signs of hypoperfusion. TyG index was calculated as as ln [fasting triglyceride (mg/dL)×fasting glucose (mg/dL)/2]. Patients were divided into two according to presence of CS at admission. Baseline clinical features and laboratory data of the groups were compared. Independent predictors of CS was determined by multivariate analysis.

Results: 970 patients were included in the study and CS was observed in 75 (7.7%) patients at admission. Median age of the study population was 57 (49-67) years and 82.5% was male. Patients with CS at admission were significantly older. There were significantly more females in CS (+) group. Previous myocardial infarction and revascularization were observed more frequently in CS (+) group while smoking was more prevalent in CS (-) group. Blood glucose, creatinine, creatine kinase-MB and white blood cell levels were significantly higher in blood samples taken upon admission in patients presenting with CS. Hemoglobin level was significantly lower in CS (+) group (Table). In multivariate analysis; age (OR: 2.04, 95% CI:1.39-2.99, p=0.01), previous revascularization (OR: 1.77, 95 % CI:1.04-3.02, p=0.01), TyG index (OR:1.28, 95% CI:1.01-1.63, p=0.03), admission glucose (OR:1.005, 95% CI: 1.001-1.008, p=0.02) and white blood cell count (OR: 1.18, 95% CI:1.11-1.26, p=0.01) were identified as independent predictors of CS at admission (Figure 1 and 2).

Conclusion: Age, previous revascularization, admission glucose level, white blood cell count and TyG index are independently associated with CS at admission in non-diabetic patients with STEMI. TyG index, a simple marker of insulin resistance which is a pivotal risk factor for cardiometabolic diseases, can be used to predict CS at admission in this patient group.

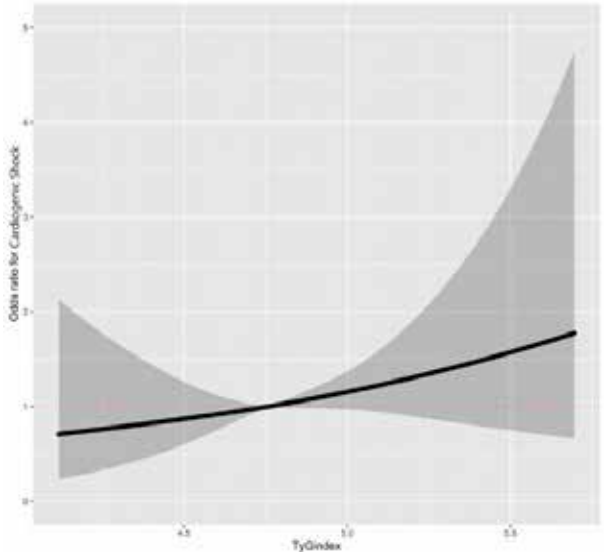
Keywords: Cardiogenic shock, ST-segment elevation myocardial infarction, triglyceride-glucose index

Figure 1. Predictors of Cardiogenic Shock at admission in Non-diabetic patients with STEMI

Variables	Odds Ratio (95% CI)	*p* value
Age (years)	2.04 (1.39-2.99)	0.01
Gender (female)	0.63 (0.39-1.02)	0.06
Previous Revascularization	1.77 (1.04-3.02)	0.01
TyG index	1.28 (1.01-1.63)	0.03
Admission glucose (mg/dL)	1.005 (1.001-1.008)	0.02
Admission WBC (×10^3/μL)	1.18 (1.11-1.26)	0.01

Abbreviations: CI= Confidence interval; STEMI= ST-segment elevation myocardial infarction; TyG index= Triglyceride-glucose index; WBC= White blood cell.

Figure 2. Odds ratio plot presenting association of TyG indeks with cardiogenic shock



Increase in Triglyceride-glucose (Tyg) index is associated with increased cardiogenic shock risk at admission.

Table. Baseline characteristics of the study population by presence of cardiogenic shock at admission

	Overall population (n=970)	Cardiogenic Shock (+) (n=75)	Cardiogenic Shock (-) (n=895)	p value
Age (years)	57 (49-67)	66 (56-78)	57 (49-66)	<0.000
Gender (Male)	800 (82.5)	55 (73.3)	745 (83.2)	0.03
Hypertension	371 (38.2)	33 (44)	338 (37.8)	0.29
Hyperlipidemia	44 (4.5)	1 (1.3)	43 (4.8)	0.25
Smoking	774 (79.8)	53 (70.7)	721 (80.6)	0.04
Previous MI	166 (17.1)	23 (30.7)	143 (16)	0.001
Previous Revascularization	154 (15.9)	20 (26.7)	134 (15)	0.008
Glucose (mg/dL)	120 (103-144)	148 (118-225)	118 (102-140)	<0.000
Creatinine (mg/dL)	0.81 (0.73-0.96)	0.9 (0.82-1.1)	0.81 (0.73-0.93)	0.03
Total cholesterol (mg/dL)	179 (152-208)	171 (151-199)	180 (152-209)	0.18
LDL-cholesterol (mg/dL)	114.5 (91-141)	110 (87-136)	115 (91-141)	0.45
HDL-cholesterol (mg/dL)	35 (30-41)	34 (29-41)	35 (30-41)	0.52
Triglyceride (mg/dL)	128 (93-172)	113 (89-142)	130 (93-172)	0.013
TyG index	4.7 (4.5-4.88)	4.71 (4.56-4.93)	4.7 (4.53-4.88)	0.65
Troponin (ng/mL)	3.91 (0.6-22.75)	5.51 (0.38-33.6)	3.8 (0.6-22.71)	0.53
CK-MB (U/L)	62.6 (27.9-151)	90.9 (40.4-193)	62.4 (27.5-146)	0.04
WBC (×10^3/µL)	11.79 (9.4-14.2)	13.98 (9.9-18.8)	11.63 (9.4-14.1)	<0.000
Hemoglobin (g/dL)	14.1 (12.8-15.1)	13.5 (12.1-14.5)	14.1 (13-15.2)	0.04

Categorical data are presented as numbers (percentages) and continuous data are presented as median (interquartile range). Abbreviations: CK-MB= Creatine kinase-MB; HDL-cholesterol= High-density lipoprotein cholesterol; LDL-cholesterol= Low-density lipoprotein cholesterol; MI= Myocardial infarction; TyG index= Triglyceride-glucose index; WBC= White blood cell.

OA-60 CAN MEAN PLATELET VOLUME TO PLATELETCRIT RATIO (MPV/PCT) BE PREDICTIVE FOR CORONARY STENT THROMBOSIS?

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Objective: The basic role of platelets in the formation of thrombosis and related ischemic events in patients with high-risk coronary artery disease is well known. Coronary stent thrombosis (CST) is a complication after stent implantation and is associated with a mortality of 5% to 45%. In our study, we investigated the value of MPV/PCT ratio, which is a platelet indicator, in predicting stent thrombosis.

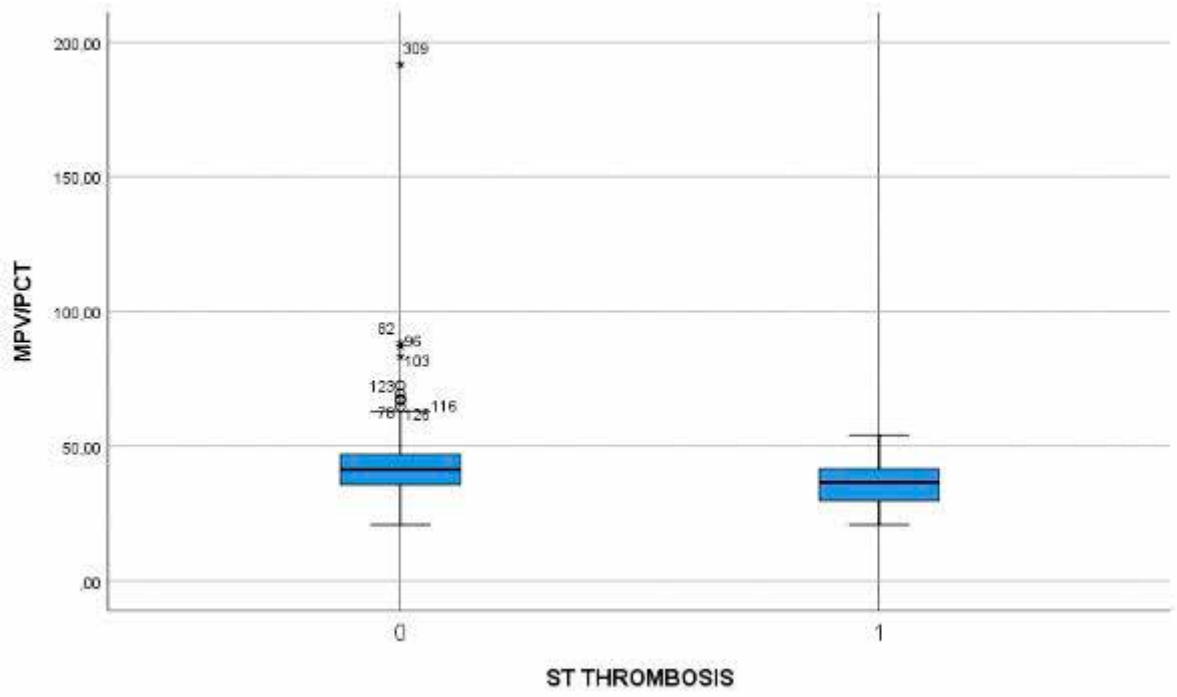
Methods: The study included 67 patients (mean age 63.3, 51 males) enrolled in a single center between August 2016 and June 2021, who underwent drug-eluting stenting with percutaneous coronary intervention and subsequently CST, and 273 patients (mean age 63.1 years, 184 males) who did not develop thrombosis as the control group. Demographic, angiographic, and biochemical data and 1-year mortality were evaluated in the study. MPV/PCT values were compared in the groups.

Results: The MPV/PCT ratio was found to be significantly lower in the CST group (36.53 vs 41.33; p<0.001) (Figure 1). Additionally, ejection fraction (EF), hemoglobin level, neutrophil count, lymphocyte count, MPV, PCT, platelet distribution width (PDW) values were found to be significantly different in the groups (respectively, p<0.001; p:0.031; p<0.001; p:0.019); p<0.001; p:0.003; p<0.001). In the CST group, presentation with shock and 1-year mortality were significantly increased compared to non-CST group (1.1% vs.7.5%; p:0.009, 8.4% vs. 28.4%; p<0.001). Bifurcation stenting was detected more frequently in the CST group than non-CST group(1.8% vs 11.9%; p<0.001) (Table 1). In multivariate regression analysis, EF, presentation with shock, and MPV/PCT were found to be significant (OR:0.914, p<0.001; OR:7.24, p:0.045; OR:0.921, p<0.001).

Conclusion: The MPV/PCT ratio was found to be lower in patients who developed CST than non-CST group. MPV/PCT, EF, and MPV/PCT can be used in risk classification of CST.

Keywords: Coronary stent thrombosis, Mean platelet volume to plateletcrit ratio, Percutaneous coronary intervention

Coronary stent thrombosis and MPV/PCT ratio



MPV/PCT: Mean platelet volume to plateletcrit ratio

Table 1: Demographic, biochemical, angiographic and clinical characteristics of the groups

	Stent Thrombosis (–) N=273	Stent Thrombosis (+) N=67	p
Age (Years)	63.16±11.85	63.37±11.10	0.892
BMI (kg/m2)	27.89(25.93-31.25)	26.95 (24.44-30.38)	0.052
Ejection fraction	60 (50.5-60)	45(40-55)	<0.001
Creatinine (mg/dl)	0.81 (0.69-1.00)	0.88 (0.72-1.13)	0.086
LDL-C (mg/dl)	121 (91.25-152.45)	125(100-163)	0.273
Triglyceride (mg/dl)	134.5 (98.25-196)	137(87-190)	0.840
HDL-C (mg/dl)	4.07 (3.8-4.3)	4.10 (3.66-4.34)	0.784
Hemoglobin (g/dl)	13.4 (11.82-14.57)	13 (11.1-13.8)	0.031
Neutrophil (109/L)	5.25 (4.22-6.63)	6.82 (5.26-8.75)	<0.001
Platelet (109/L)	251 (220.5-293)	267 (228-342)	0.061
Lymphocyte (109/L)	2.13 (1.61-2.65)	1.81(1.20-2.59)	0.019
Monocyte (109/L)	0.71 (0.58-0.87)	0.79 (0.61-0.99)	0.060
RDW (%)	13.5 (12.9-14.05)	13.7 (13-14.2)	0.063
PDW (%)	13.1 (11.3-15.3)	11.6 (10.30-12.30)	<0.001
MPV (fL)	10.4 (9.8-11.2)	10(9.5-10.4)	<0.001
PCT (%)	0.25 (0.22-0.30)	0.28 (0.23-0.35)	0.003
MPV/PCT	41.33 (35.6-47.0)	36.53 (29.67-41.73)	<0.001
Gender (male, %)	184 (67.4)	51 (76.1)	0.166
Smoking (n, %)	99 (36.3)	23 (34.3)	0.659
1-year death (n, %)	23 (8.4)	19 (28.4)	<0.001
Presentation with shock (n, %)	3 (1.1)	5 (7.5)	0.009
Associated coronary artery (n, %)			0.590
LAD	139 (50.9)	36 (53.7)	
CX	64 (23.4)	11 (16.4)	
RCA	60 (22)	18 (26.9)	
Venous graft	10 (3.7)	2 (3.0)	
Medication (n, %)			
ACEI/ARB	207 (75.89	49 (73.1)	0.647
B-blocker	230 (84.2)	60 (89.6)	0.255
Calcium channel blockerr	92 (33.7)	15 (22.4)	0.074
Diuretic	102 (37.4)	22 (32.8)	0.490
Statin	149 (54.6)	31 (46.3)	0.222
Oral anticoagulant	28 (10.3)	4 (6)	0.258
Diabetes Mellitus (n, %)	124 (45.4)	26 (38.8)	0.328
Hypertension (n, %)	232 (85)	58 (86.6)	0.849
Hyperlipidemia (n, %)	221 (81)	58 (86.6)	0.374
First stent indication (n, %)			0.784
Stable angina pectoris	101 (37)	26 (38.8)	
Acute coronary syndrome	172 (63)	41 (61.2)	
Stent thrombosis type (n, %)			
Acute (0-24 hours)		21 (26)	
Early (1-30 days)		26 (38.8)	
Late (after 30 days)		20 (29.9)	
Use of glycoprotein IIbIIIa (n, %)	16 (5.9)	3 (4.5)	0.650
First after-PCI antiplatelet)(Tikagrelor and prasugrel) (n, %)	154 (56.4)	29 (43.39	0.151
Bifurcation stent (first stenting) (n, %)	5 (1.8)	8 (11.9)	<0.001

ACEI: Angiotensin-converting enzyme inhibitors, ARB: Angiotension II receptor blockers, BMI:Body mass index, CX: Circumflex artery, HDL-C: High-density lipoprotein cholesterol, LAD: Left anterior descending artery, LDL-C:Low-density lipoprotein cholesterol, MPV: Mean Platelet Volume, PCT: Plateletcrit, PDW:Platelet distribution width, RCA:Right coronary artery, RDW:Red blood cell distribution width

OA-61 THE HEMOGLOBIN, ALBUMIN, LYMPHOCYTE, AND PLATELET (HALP) SCORE: A POTENTIAL BIOMARKER IN ACUTE CORONARY SYNDROME

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Objective: Acute coronary syndromes are clinical conditions that require rapid diagnosis. Especially when there are no typical changes in electrocardiography, biomarkers come to the fore in diagnosis. The haemoglobin, albumin, lymphocyte, and platelet (HALP) score is an indicator of inflammation and nutritional status, which has gained popularity recently. There are studies showing that this score can be used as a prognostic indicator in malignancy, ischemic stroke and acute heart failure. In this study, we aimed to investigate the utility of HALP score in acute coronary syndromes.

Method: The HALP score was calculated by using the haemoglobin (g/L) × albumin (g/L) × lymphocyte count (/L) / platelet count (/L) method. Data are presented as mean ± standard deviation and as proportions for categorical variables. The t-test and chi-square test was used for the comparisons of continuous and categorical variables, respectively. The data distribution for normality was tested by the Shapiro-Wilk test, and the homogeneity of group variances were tested by the Levene test. For the parameters that were not normally distributed, the Mann-Whitney U-test was used. Binary logistic regression analysis was used to evaluate the effect of HALP score and the other variables on acute coronary syndrome diagnosis.

Results: A total of 201 patients were enrolled for this retrospective study. The mean age of the patient population was 58.9 ± 12.3, and 64.2% of patients (n=129) were male. The study population was divided into two groups according to the coronary angiography Results: The acute coronary syndrome group (ACS) and normal coronary arteries group (NCA). The ACS group consists of 145 patients and NSC group consists of 56 patients. There were statistically significant differences among groups in terms of gender, age, troponin and HALP levels. The HALP value of ACS group was 6.3 (4.3-9.5) and the HALP value of NCA group was 5.1 (3.9-6.4) and the difference was statistically significant (p=0.001). The troponin levels were higher in ACS group as expected (p<0.001). According to the spearman correlation analysis there was a negative correlation between troponin and HALP levels (r=-0.254, p=0.001). Binary logistic analysis revealed that age (p<0.001), gender (p=0.002) and HALP score (p=0.009) has an explanatory power on the acute coronary syndromes.

Conclusion: The HALP score may be used as a potential biomarker for the diagnosis of acute coronary syndromes. Since the number of patients is limited in the study, it should be considered as a major limitations and this study should be confirmed with a larger number of patients.

Keywords: HALP score, acute coronary syndrome, biomarker

Characteristics of the study groups

	Acute Coronary Syndrome (n=145)	Normal coronary arteries (n=56)	p
Gender, m	112 (77.2%)	17 (30.3%)	<0.001
Age	61.7±12.2	51.8 ± 9.2	<0.001
Troponin (ng/L)	249.4 (26.0-2682.4)	13.6 (1.1-39.5)	<0.001
HALP score	6.3 (4.3-9.5)	5.1 (3.9-6.4)	0.001

OA-62 HEALING OF SPONTANEOUS CORONARY ARTERY DISSECTION WITH GLYCOPROTEIN IIB-IIIA THERAPY IN A WOMAN UNDERGOING HORMONE REPLACEMENT THERAPY

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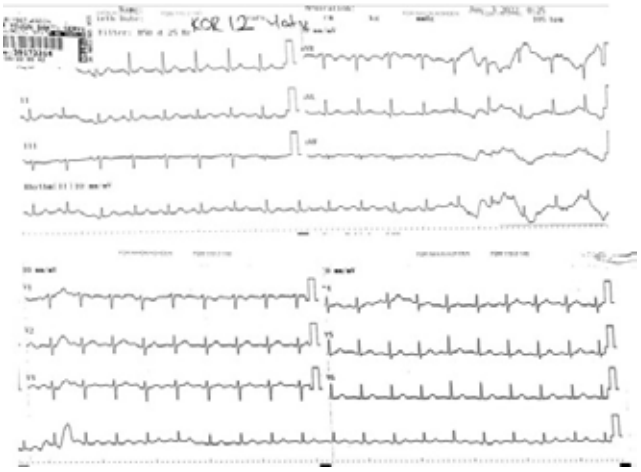
Introduction: Spontaneous coronary artery dissection (SCAD), non-atherogenic cause of acute coronary syndrome, characterized by acute and non-traumatic separation of coronary artery wall layers with resultant intramural hematoma that might communicate with arterial lumen through an intimal tear. Approximately one quarter of acute coronary syndrome cases in women between 40-65 years of age is linked to SCAD which has a strong female predominance with different predisposing or precipitating factors. Herein we reported a case of SCAD in a 55-year old woman who used hormone replacement therapy.

Case-report: Fifty-five years old woman admitted to our emergency department with 2-hour chest pain. She had history of hypertension treated with telmisartan and hydrochlorothiazide and was taking hormone replacement therapy (desogestrel, 75 µg). Her electrocardiogram (ECG) did not show significant ST segment deviation (Figure 1). Her initial cTroponin T was 48.59ng/l. She was interned to coronary intensive care unit (CICU) with a diagnosis of acute coronary syndrome. Her biochemical results were as follows: TSH: 4.89 µIU/mL, urea: 24,9 mg/dL, creatinine: 0.77 mg/dL, total cholesterol: 295 mg/dL, HDL-C: 35.9 mg/dL, triglyceride: 414.9 mg/dL, aspartate aminotransferase: 27 U/L, alanine aminotransferase, Na: 137 mmol/L, K: 4.19 mmol/L, pro-BNP:63.44 ng/L, Hgb: 11.9 g/dL,WBC: 12.7 10e3/uL. Her coronary angiogram showed coronary artery dissection in distal LAD with TIMI flow grade of 2. Tirofiban infusion for 24 hours. Her control angiogram showed no evidence of dissection with a TIMI flow grade of 3 (Figure 2).

Discussion: Pathophysiological processes underpinning the mechanism of SCAD have not been fully elucidated. Spontaneous rupture of vasovasorum into vessel wall and secondary distruption of arterial wall anatomy by an intimal tear are the two proposed mechanism. Although its pathophysiology is miscellaneous, some predisposing factors including connective tissue disorders, hormonal factors, inflammatory disorders and fibromuscular dysplasia have been described. SCAD cases following use of oral contraceptive and hormone replacement therapy use have been reported. Data regarding the treatment of SCAD mainly comes from observational studies. Repeat angiography of these patients showed the angiographic healing of SCAD in almost 90% of cases. Stent replacement might be associated with extension of intramural hematoma. There are no data about the use of glycoprotein IIb/IIIa inhibitors in SCAD patients but their use is usually avoided because of the risk of thrombus extension. In our case 24-hour tirofiban infusion was associated with TIMI flow grade 3 and healing of the dissection. More data are needed about this topic.

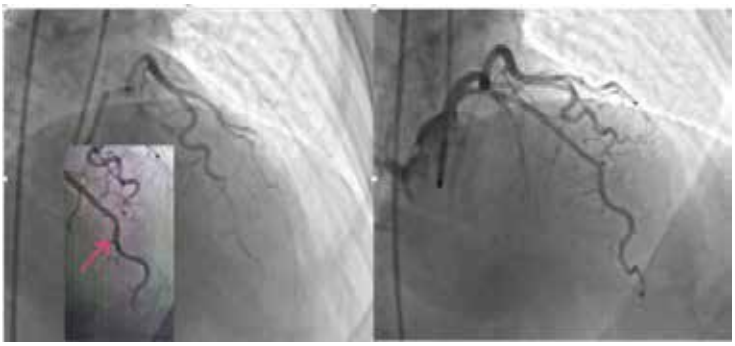
Keywords: spontaneous coronary artery dissection, hormone replacement therapy, glycoprotein IIB-IIIA

FIGURE 1



INITIAL ECG OF THE PATIENT.

FIGURE 2



Initial and control coronary angiogram of the patient

OA-63 THREE IN ONE: DEHISCENCE, ABSCESS, AND ENDOCARDITIS

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Introduction: Mechanical aortic valve dehiscence (MAVD)with aortic root abscess (ARA)can lead to serious complications although it is rare after surgical aortic valve replacement.Although only treatment option is redosurgery due to risk of spontaneous rupture,mortality are high(1).Several causes can lead to dehiscence;one of the most common causes is infection.In some cases,infective endocarditis(IE)causes dehiscence,resulting in lifethreatening complications.In this case,we describe valve dehiscence accompanying ARA seen postoperatively in patient who had previously undergone Benthall operation.

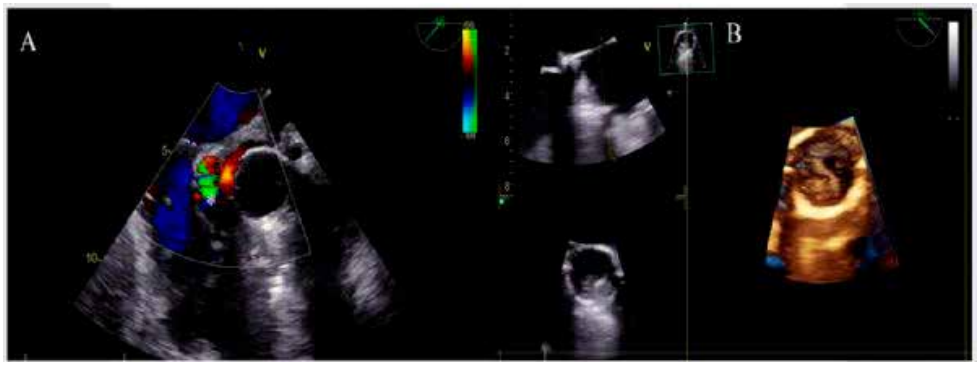
Case Presentation: A 43-year-old male patient with history of diabetes mellitus and Benthall operation 1 year ago presented to emergency department with fever and fatigue.The patient received antibiotic treatment (ertapenem-teicoplanin) due to wound infection in another hospital 7 months after the operation.Physical examination revealed grade 2 diastolic murmur.Heart rate was 108bpm,blood pressure was 90/60mmHg.The laboratory showed elevation of inflammatory markers(C Reactive Protein was 35mg/L,ESR was 36mm/h).Blood cultures revealed Staphylococcus hominus.Following admission to hospital,antibiotic was administered.ECG was sinus rhythm.Transthoracic echocardiography showed ejection fraction was 55%. Transesophageal echocardiography revealed hyperechoic image of 12x6 mm was observed extending from the inner surface of mechanical valve to the LVOT.It was also observed that tube graft was separated from the ascending aorta,probably due to ARA(figure1).In addition,pseudoaneurysm in the mitraaortic intervalvular fibrosa(figure1),moderate to severe aortic regurgitation(figure2)and mild mitral regurgitation were also observed.Computed tomography (CT)was performed on patient.After fluid-filled saccular aneurysm was observed in ascending aorta,he was admitted to hospital with prediagnosis of IE.Patient was offered redosurgery;he refused.He was discharged after completing his medical therapy.

Discussion: Dehiscence accompanying ARA is one of rare and the most frightened complications of infective endocarditis.Various symptoms such as fever,dyspnea and syncope can be seen in patient,whose clinical presentation range is wide (2).Most common cause of dehiscence is infections. In some studies,it has been shown that high-dose corticosteroid after operation is also the cause.Aortic conduit infections have high mortality rates and if undiagnosed life expectancy is even below 20%(3).Infections seen after aortic graft operations are usually late complications and average time of occurrence is approximately 24 months after operation(4).

Conclusion: The present case report highlights that although MAVD is rare complication,it requires attention.Further investigation should be performed in patients with fever of unknown origin after Benthal operation.Treatment include redosurgery,debridement of infected tissue and antibacterial agents(5).Cases should be managed by heart team.

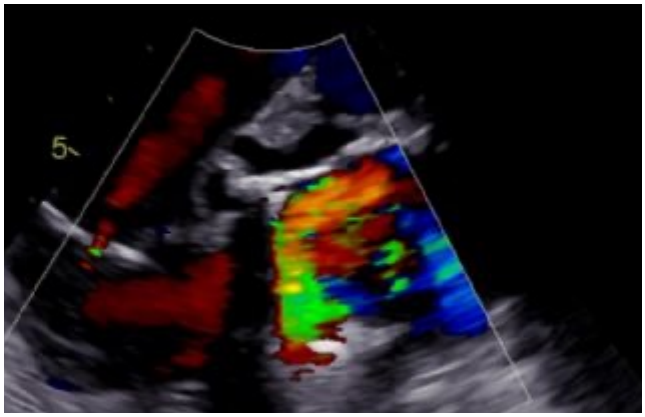
Keywords: aortic root abscess, Aortic conduit infections, aortic valve dehiscence, postoperative graft enfections

Figure 1



A:AORTIC ROOT ABSCESS IN TRANSESOPHAGEAL ECHOCARDIOGRAPHY IN 45 DEGREES PSAX. SIGN SHOWS THAT MITRA-AORTIC INTERVALVULAR FIBROSA B: 3D VIEW

Figure 2



ASCENDANT AORTIC GRAFT DEHISCENCE, AORTIC ROOT ABSCESS AN AORTIC REGURGITATION

OA-67 INTRAVASCULAR ULTRASOUND GUIDED SUCCESSFUL TREATMENT OF INTRAMURAL HEMATOMA WITH LEFT MAIN CORONARY ARTERY LUMINAL COMPRESSION

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Objective: Intracoronary hematoma is characterized by collecting blood medial-adventitial layers of vessel without detectable intimal flaps. These are coronary artery pathologies that are clinically rare but cause serious clinical problems. The underlying pathology has not been fully elucidated. An intramural hematoma may be angiographically indistinguishable from a ruptured atherosclerotic plaque. Intravascular ultrasound (IVUS) is important in the correct diagnosis of isolated intramural hematoma.

Method: A 57-year-old male patient presented to the emergency department with chest pain with minimal effort for the last 1 month. the patient underwent balloon angioplasty due to spontaneous coronary artery dissection 3 months ago, When we performed coronary angiography on the patient, we detected a critical stenosis extending from the left main coronary artery (LMCA) to the left anterior descending artery (LAD). When evaluated with IVUS, we detected an intramural hematoma that severely narrowed the lumen. The stent extending from the ostium of LMCA to the LAD was implanted. Upon subtotal appearance of the ostium of circumflex artery, kissing balloon was applied. Final proximal optimization technique was performed to LMCA. When the IVUS was repeated, it was observed that optimal stent expansion was achieved and there was no edge dissection, stent malapposition, hematoma protrusion.

Results: Intramural coronary hematoma is an unusual but challenging cause of acute coronary syndrome. As can be seen after percutaneous coronary interventions, pre-post-partum period, vasculitis, hypertension and trauma are among the risk factors. Its clinical presentation varies depending on its enlargement and narrowing of the true lumen. While coronary percutaneous interventions have an important place in the treatment, medical treatment is also among the options. Coronary angiography has limited diagnostic value in the absence of intimal dissection, and lesions are usually not angiographically detectable. IVUS and optical coherence tomography (OCT) can be valuable in making the correct diagnosis and planning the management procedure.

Conclusion: Intramural hematoma should be suspected in patients who have undergone percutaneous coronary intervention due to spontaneous coronary artery dissection, as complaints increase in the early period. Treatment should be determined according to the clinical presentation of the patient. IVUS is of great importance in guiding the treatment strategy in cases where the angiographic evaluation is uncertain. IVUS delivers clear, high-resolution images. In addition, direct stenting with low inflation pressure will reduce post-PCI complications such as longitudinal hematoma elongation, restenosis, and stent thrombosis. Post stenting IVUS is crucial to assess the resolution of the intramural hematoma and to ensure good stent placement.

Keywords: IVUS, ıntramural hematoma, LMCA

OA-68 AN UNUSUAL CARDIAC-TOXICITY OF 5-FLUOROURACIL: MINOCA

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Objective: 5-fluorouracil (5FU) which is an antimetabolite chemotherapeutic agent used for solid tumors, may lead to a various cardiovascular adverse events, ranging from mild electrocardiographic (ECG) changes to acute myocardial infarction and progressive heart failure. We hereby present a case of myocardial infarction with non-obstructive coronary arteries (MINOCA) which is caused by 5FU.

Method/Case: A 46 year-old man without any previous cardiovascular disease, underwent Whipple operation for choledoc adenocarcinoma. Adjuvant chemotherapy as FOLFOX regimen was started (oxaliplatin 130 mg, folinic-acid 650 mg, 5FU 650 mg/3600 mg) following the operation. The patient suffered from acute onset, severe retrosternal chest pain about 24 hours after the first treatment episode. Immediately after chest pain obtained ECG showed 3-mm ST segment elevation on DII-DIII-AVF (Figure-1). Urgent bedside echo revealed systolic wall motion abnormality on inferior and posterior segments of left ventricle. Regarding these imaging results and clinical findings, coronary angiography (CA) was promptly performed with the suspicion of inferior st-elevation myocardial infarction (STEMI). However, CA revealed normal coronary arteries without stenosis (Figure-2a,b,c). After the CA, patient was admitted to the coronary intensive care unit for close monitoring, 5-FU infusion was stopped. Chest pain of the patient was relieved and ECG abnormalities resolved spontaneously after interruption of 5-FU and he was discharged two days later uneventfully. Additionally on the blood sample taken at the clinical worsening, troponin level revealed 50-fold increase. Control echo which was performed 10 days later revealed completely normal findings.

Result: Regarding the typical findings consistent with acute STEMI despite non-obstruction on CA, the patient was supposed to be diagnosed as MINOCA.

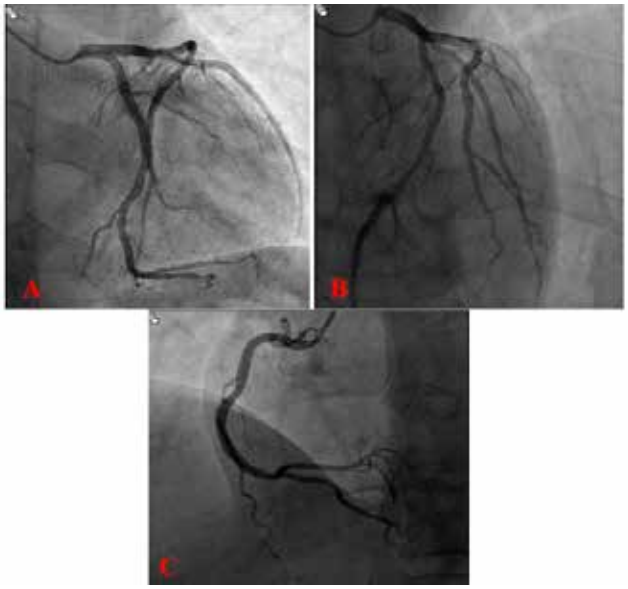
Conclusion: Few similar cases were reported before related with the cardio-toxicity of 5-FU. However this is an unique case in terms of meeting multiple criteria of an acute STEMI including typical chest pain, ECG changes, elevated troponin levels, segmental myocardial systolic dysfunction. As a result, all oncologists and cardiologists should be more cautious about the potential cardiac side effects of 5-FU therapy.

Keywords: MINOCA, cardio-toxicity, cardio-oncology, myocardial infarction, 5-fluorouracil

Figure-1

ECG after chest pain showed mild st-elevation on D2, D3 and aVF.

Figure-2



RAO caudal (A), LAO crainal (B) view of left coronary system and LAO view of right coronary artery (C).

OA-69 INTERESTING RESPONSE OF MYOCARDIAL BRIDGE TO BETA-BLOCKER THERAPY

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Objective: Myocardial bridging is the most common congenital anomaly in which a section of a coronary artery takes a "tunneled" intramural course under a "bridge" of overlying myocardium. This causes vessel compression in systole, resulting in hemodynamic changes that may be associated with angina and myocardial ischemia. Due to thier negative inotropic and chronotropic effects, and decreasing anginal pains, beta-blockers or non-dihydropyridine calcium-channel blockers are the first-line therapies. Surgery or percutaneous coronary intervention is considered in patients who remain symptomatic on medical management

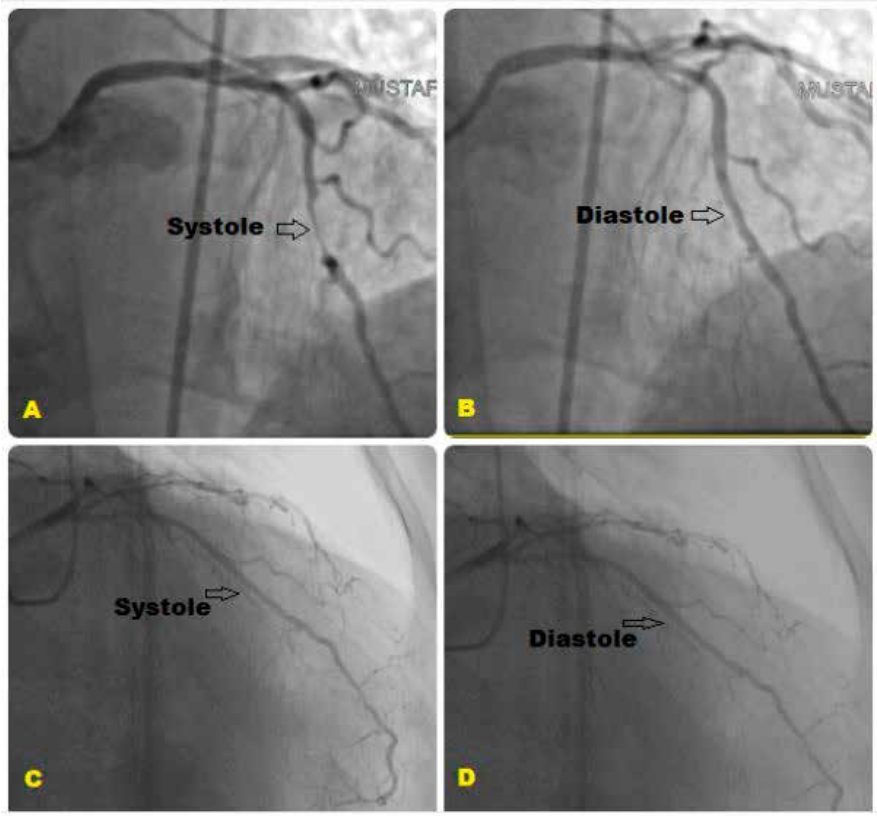
Case: A 70 year-old male patient presented to our clinic with the diagnosis of acute coronary syndrome. Two months ago he had a history of percutaneous intervention to the circumflex coronary artery and a medically (metoprolol 50 mg po qd) followed-up myocardial bridge that causing severe stenosis (%90) in the middle segment of left anterior descending coronary artery (Fig.1A). In physical examination, his respiratory rate was 18/min, his blood pressure was 125/70 mmHg and his pulse was 63/min. His electrocardiography was normal, but his troponin was above the normal range. Coronary angiography was performed via the right radial route, that interestingly showed complete disappearance of the myocardial bridge and a mild diffuse coronary spasm (Fig.1B)

Result: İn our patient, we noticed interestingly complete disappearance of the myocardial bridge with beta-blocker treatment. As there was diffuse spasm in the remaining coronary bed, we switched beta-blocker to a calcium-channel blocker.

Conclusion: Beta-blockler treatment is effective in the treatment of miyocardial bridge.

Keywords: Myocardial bridge, left anterior desanding artery, beta-blockler treatment

Figure



OA-70 LEFT VENTRICULAR ASSIST DEVICE IMPLANTATION CONCOMITANT WITH CARDIAC TUMORAL RESECTION

Arzu Yazar, Ibrahim Oguz Karaca
medipol mega üniversitesi hastanesi

Objective: Advanced heart failure is related to worse prognosis. If medical management is inadequate, mechanical circulatory support and heart transplantation become the only options for treatment. However referrals to ventricular assist device are commonly delayed and it is a rare procedure worlwide. Cardiac tumors are rare and mostly found incidentally during evaluation for a seemingly unrelated problem. Hemangiomas are extremely rare benign tumors of the heart accounting for 5%–10% of benign tumors. In our case we present a patient with advanced heart failure and cardiac hemangioma who underwent concomitant LVAD device implantation and tumor resection.

METHOD(CASE): A 50 year-old man with a history of non-ischemic dilated cardiomyopathy presented with progressive dyspnea. He had advanced heart failure criteria with frequent hospitalizations despite optimal medical therapy. He was already on the transplant waiting list with a plan to proceed with bridge to transplant LVAD implantation. On his previous evaluation two years ago, he had normal coronary arteries with low cardiac output, high PCWP and high PVR. Therefore he was not a transplant candidate and was planned to proceed with LVAD surgery. On physical examination, the patient was awake and orthopneic. He was hypotensive (85/55 mmHg), tachycardic (110 bpm) and afebrile. He had cold extremities distended jugular veins. His oxygen saturation was 90% at room air. Fine crackles were heard at the basal to mid lung bilaterally. Grade 3/6 holosystolic murmur, heart best at the apex. The abdomen was distended with a palpabl hepatomegaly. There was grade 3 bipedal pitting edema. On echocardiographic examination, LVEF was %15. There was moderate to severe mitral regurgitation with elevated pulmonary artery pressure. Right ventricle functions and size were preserved. As a new onset finding, right atrium was found to compressed with a large tumor disrupting the tricuspid inflow. Chest CT revealed a huge mediastinal mass (84x105 mm) compressing the right atrium and causing cavity obliteration. However tumor origin and borders were not recognizable.

Result: After discussion with the patient, the heart failure team decided to proceed surgical resection of the tumor with concomitant LVAD implantation procedure. The tumor appeared to originate from the right atrial free wall with a size of approximately 10 cm (Figure 1A). After resection of the tumor, LVAD (Heart Mate 3, Thoratec) implantation was completed according to the standard procedure. Pathology of the tumor was reported as hemangioma (Figure 1B). The patient had an uneventful post-operative course and successfully discharged with a dramatically improved clinical status.

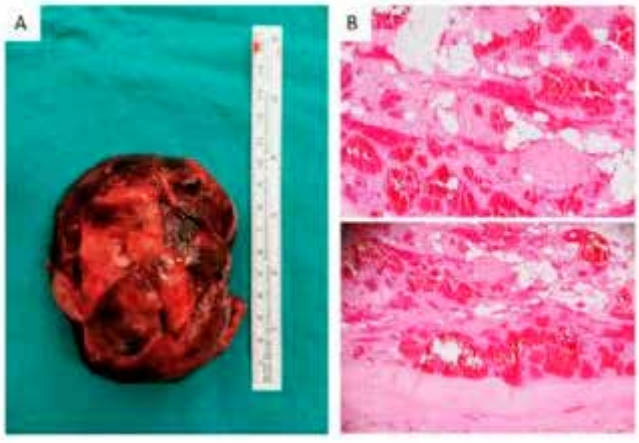
Conclusion: In this case a successful management of patient with both advanced heart failure and cardiac hemangioma, is reported. To our knowlage it is the first case demonstrating concomitant LVAD implantation and cardiac tumoral resection.

Keywords: left vetricular assist device, cardiac hemangioma, advanced heart failure

figure 1

Huge mediastinal mass compressing the right atrium and causing cavity obliteration on CT imaging

figure 2A and 2B



cardiac hemangioma, macroscopic and microscopic apperance

OA-71 PRIMARY PERCUTANEOUS INTERVENTION OF LEFT MAIN TOTAL OCCLUSION IN A CARDIOGENIC SHOCK PATIENT

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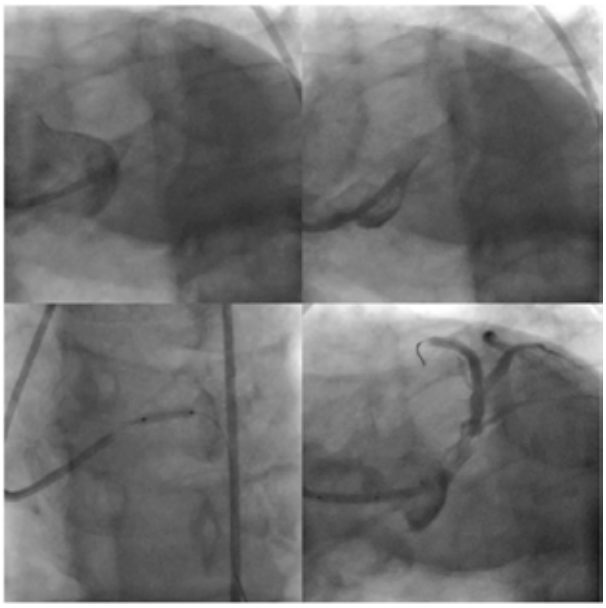
Background: Cardiogenic shock is the leading cause of in-hospital mortality in patients with myocardial infarction. Primer percutanous revascularization of culprit lession is the main strategy in these patients and improve outcomes.

Case: A 68-year-old man with known COPD was admitted to the emergency room with squeezing type chest pain that started within an hour. the patient had nausea, vomiting and sweating. An widespread ST elevation was seen on electrocardiogaphy. The hypotensive patient was transferred to the catheter laboratory for primary percuatnous intervention with the diagnosis of acute anterolateral myocardial infarction. On coronary angiography, RCA was well developed and plaqued, while left main coronary artery (LMCA) was observed with total and thrombosis from the osteal. Then JL4 guiding catheter was seated in LMCA ostium. the thrombosed LMCA lesion was passed to LAD with floppy wire and predilation was applied with a 2.5*15 mm balloon, then 4.0*23 mm DES was implanted from LMCA osteal to LAD proximal segment. then, postdilation was performed with 5,0*12 mm NC balloon. LCX was non-dominant and TIMI 2-3 flow was achieved. The patient was taken to coronary intensive care unit under inotropic support. Medical treatment of the patient whose inotropic support was discontinued was optimized during follow-up. Echocardiography revealed left ejection fraction of 30-35%, moderate mitral insufficiency and moderate tricuspid insufficiency. The hemodynamically stable patient was externed from the CCU after regression of hypervolemia findings.

Conclusion: Cardiogenic shock occurs in approximately 10% of patients with acute myocardial infarction and is associated with high mortality rates of these patients at about 40% in 30 days and 50% in 1 year. Current evidence and guidelines support immediate revascularization of culprit lession of coronary artery as the primary therapy for cardiogenic shock following acute myocardial infarction. Left main coronary artery total occlusion is a rare entity in patients with myocardial infarction due to its high mortality. Rapid and effective revascularization of LMCA osteal occlusion was achieved in this patient who had cardiogenic shock and 30-day follow-up was completed without mortality and serious morbidity.

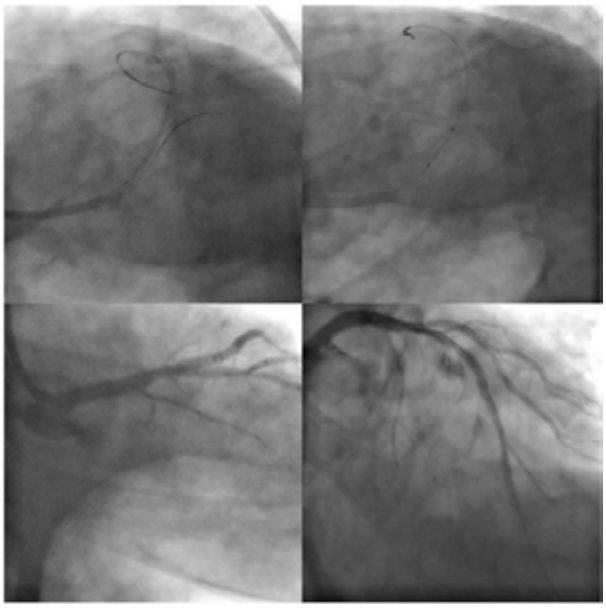
Keywords: cardiogenic shock, left main artery occlusion, myocardial infarction

figure 1



LMCA total occlusion, predilatation with 2,5x15 mm balloon after wiring and LMCA thrombus

figure2



4.0x23 mm DES implantation from LMCA osteal to LAD proksimal, postdilatation with 5.0x12 mm NC balloon and final result

OA-72 RIGHT VENTRICULAR INJURY AND PERICARDIAL EFFUSION DUE TO PACEMAKER İMPLANTATION

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Tokat Gaziosmanpaşa University

Objective: Complete atrioventricular (AV) block,AV conduction is completely lost.The rhythm that will provide perfusion is the nodal or ventricular escape rhythm. The patient may experience syncope or sudden cardiac death. Drug toxicity, coronary artery disease and degenerative disorders are the most common causes of AV complete block in adults. Definitive treatment in these patients is pacemaker implantation.

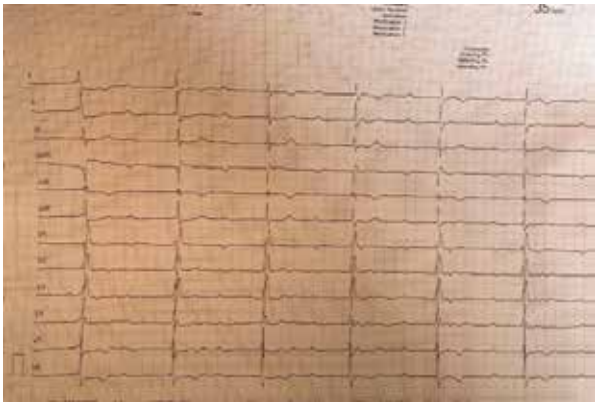
Case: A 67-year-old female patient presented to the external center emergency department with presyncope. The patient was referred to our center for further examination and treatment, after complete AV block (Figure 1) was detected in ECG.No abnormality was found in the blood parameters,except troponin value was 57(N<50). Coronary angiography were planned for the patient. No severe coronary stenosis in the coronary angiography,and temporary pacemaker implantation was performed in the same session. No abnormality was detected in the patient's ECHO. One day after, the patient was taken to the catheter laboratory for permanent pacemaker implantation.After pacemaker implantation was performed, the patient was taken to the service. No abnormality was detected in the pacemaker controls performed on the patient. One week later, the patient presented to the emergency department with nausea. We consulted the patient because of pericardial effusion in the incidentally performed Thorax CT. In the ECHO,pericardial effusion was detected without compression of 1 cm on the posterior side of the right ventricle and 1 cm on the anterior surface of the left ventricle, and the patient was hospitalized.In the thorax CT of the patient, it was observed that the right ventricular lead was detected in the right ventricular muscle layer and minimally penetrated the pericardial area (Figure 2). In the pacemaker controls performed on the patient were found within normal ranges. The patient was started on colchicine and continued to be followed up in the service. Pericardial effusion did not increase in the control ECHO of the patient.Pericardial effusion was found to be minimal in the ECO performed one month later, and completely disappeared in the ECO performed one year later.

Results: The patient was followed up medically without pericardiocentesis. No abnormality was detected in the pacemaker controls performed on the patient.The patient's right ventricular lead was not withdrawn. As a result, it seems appropriate to follow up medically if the hemodynamics of the patient remains stable in minimal lead penetrations.

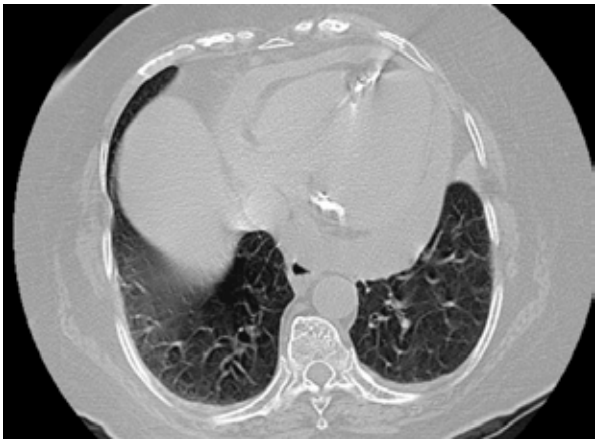
Conclusion: While the most common cause of AV complete blocks in children is congenital, degeneration due to advancing age, drug use and coronary artery disease in adults. The rate of right ventricular perforation caused by the lead in the literature is reported as 0.1-0.8% and is mostly detected within the first 24 hours. Further imaging studies such as TTE and CT are needed for diagnosis. In this case, we presented the treatment and follow-up of lead penetration.

Keywords: pacemaker, lead penetration, pericardial effusion

av copmlete block ECG



lead penetration CT



OA-74 USE OF MULTILAYER STENT AND FENESTRATED ENDOGRAFT IN A SINGLE SESSION TO TREAT LONG-SEGMENT AORTIC ANEURYSM

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A 63-year-old man with a large thoracoabdominal aneurysm in the descending aorta was admitted to hospital for endovascular treatment. To avoid the attendant risk of spinal ischemia, combination of 2 different stent technologies was used in a single procedure. A multilayer flow modulator (MFM) was implanted in the thoracoabdominal aorta in the same session after the implantation of fenestrated stent graft at the begninig of left subclavian artery origin. The patient remained well at 6 months with computed tomography evidence of exclusion of the suprarenal aneurysm, displacement of the stent, newly progressed thrombus formation.

Introduction: Endovascular repair of increasingly complex aortic morphologies is made possible with branched and fenestrated devices. Long aortic segment coverage however is now recognized as a risk for spinal cord ischemia (SCI) and remains a major concern (1). The multilayer flow modulator (MFM) (Cardiatis, Isnes, Belgium) is a novel device which does not depend on aneurysm exclusion but rather flow modulation to encourage aneurysm thrombosis, with the main advantage in preserving flow into the side branches. This report illustrates the potential combination use of MFM with established fenestrated technology to allow for single-stage long aortic coverage in mitigating SCI.

Case Presentation: A 63-year-old man was incidentally found to have a supra-infrarenal aneurysm measuring 5.7 cm in largest diameter and dissection. The dissection line starting from the descending aorta to the entire aneurysm segment and continuing to the iliac segment was observed. With right femoral intervention, a tevar graft stent measuring 7*30*40 mm was implanted at the end of arcus aorta, extending to the descending aorta. Then, the multilayer flow modulator (MFM) (Cardiatis) was gradually implanted into the graft stent ending in the descending aorta of the tevar, overlapping and ending in the distal abdominal aorta before iliac bifurcation. The patient was discharged the next day after the procedure. In the follow up, 1 month later, CT performed, the lumen of the stent graft was patent from the end of the arcus aorta to the iliac bifurcation level (fig 2B,C,D)

Discussion: The MFM is a novel stent consisting of cobalt alloy wire mesh and works on the principle of blood flow modulation to promote aneurysm thrombosis while maintaining side branch patency. We chose to use a component with a window to the beginning of the dissection, both because we are more familiar with Tevar graft stent use than with Cardiatis, and because we cannot adequately cover the dissection segment starting just from the end of the arcus aorta with Cardiatis aortic tortuosity and rotation

Conclusion: To conclude, this is the unusual technic and first reported case of combined use of the novel MFM with a customized fenestrated endograft overlapping. This represents an attractive option for single-stage repair in complex aortic disease requiring long-segment coverage.

Keywords: Multilayer flow modulator (MFM), Cardiatis, Aort Aneurysm, Dissection

Fig 2. A) Intraprocedure angiographic image, B,C and D shows after the procedure CT images

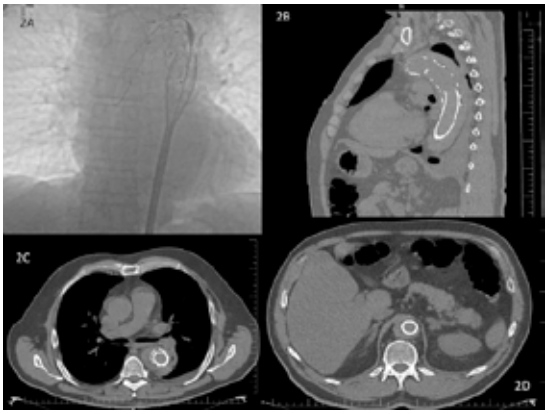
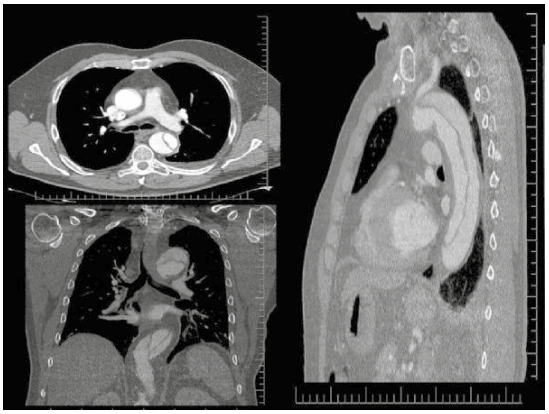


Figure 1 a,b,c. Before the procedure CT images



OA-75 TRANSCATHETER AORTIC VALVE IMPLANTATION: A TERTIARY CENTER EXPERIENCE

Fuat Fatullayev, Ersan Oflar, Cennet Yıldız, Ibrahim Faruk Aktürk

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Abstract: Objective: Transcatheter Aortic Valve Implantation (TAVI), which is an actual treatment method for advanced aortic stenosis in high-risk patients, has been applied to many patients in our clinic. The aim of this study was to show whether the mortality and morbidity results of the TAVI procedure perfomed in our clinic were similar to those in the literature.

Methods: Patients who underwent TAVI for severe aortic stenosis between April 2012 and February 2019 were evaluated. STS scores were calculated. Biochemical parameters before and after the procedure and the change in echocardiographic parameters after the procedure were determined.

Results: The mean age of the patients was 78 (62 - 89) years and 56.82% (n=25) were female. Average mean gradient of the patients before and after the procedure were 42 (20 - 72) and 10 (0 - 26) mmHg, respectively (p<0.001). In-hospital mortality rate was 9.09% (n=4), peri-procedural mortality rate was 15.9% (n=7). There was only one record of death in TAVI procedures performed after 2015. The Edwards Sapien valve was implanted in 50% (n=22) of patients, while Portico, Corevalve and Evolute valves were implanted in 25% (n=11), 18.18% (n=8) and 6.81% (n=3) of patients, respectively. Thirty (68.18%) patients had TAVI implantation without balloon pre-dilatation. There was no difference in peri-procedural mortality between patients who had and had not balloon pre-dilatation (n=2, 6.7% and n=2, 14.3%; p=0.581, respectively). Two patients had moderate aortic regurgitation after valve implantation. Eight patients had stage 1 AKF, whereas one patient had stage 2 AKF. One patient required permanent pacemaker implantation because of complete heart block. Clinical characteristics and pre-procedural and post-procedural variables of the patiens are shown in Table 1.

Conclusions: When the studies in the literature were examined, the relatively high mortality rates were observed when TAVI procedure was first used. The number of deaths in our clinic has decreased significantly over years in accordance with the literature.

Keywords: Aortic stenosis, implantation, mean gradient

Table 1

Male (n,%)	19	43.18
Female (n,%)	25	56.82
Diabetes mellitus (n,%)	13	29.55
Hypertension (n,%)	33	75
Previous cardiac surgery (n,%)	10	22.73
Ischemic heart disease (n,%)	24	54.55
B-blocker use (n,%)	24	54.55
Atrial Fibrillation (n,%)	9	20.45
	mean±SD	Median (min-max)
Age (years)	77.34±6.55	56.5 (20-65)
Left atrium (mm)	41.59±5.9	41.5 (29-54)
Interventricular septum (mm)	12.68±1.9	13 (9-18)
Posterior wall (mm)	11.66±1.4	12 (8-14)
Left ventricular end diastolic diameter (mm)	49.05±6.75	49 (35-70)
Aortic valve area (cm2)	0.76±0.18	0.8 (0.4 -1.2)
Pre-procedural max. gradient (mmHg)	75.52±21.41	71.5 (38-150)
Pre-procedural mean gradient (mmHg)	44.11±12.31	41(20-72)
Ascending aortic diameter (mm)	35.45±4.24	35 (27-46)
	Pre-procedural	Post-procedural
Systolic blood pressure (mmHg)	121.27±16.64 120 (100-163)	125.45±23.43 122.5 (83-172)
Diastolic blood pressure	70.32±9.4 70 (54-90)	64.03±13.36 64 (42-91)
Hemoglobin	11.06±1.87 10.7 (8.21-15.9)	10.33±1.69 10 (7.7-14.3)
White blood cell	7.44±2.02 7.11 (4.8-14.79)	11.32±3.53 10.15 (6.28-24.1)
Mean aortic gradient	44.11±12.31 42 (20-72)	10.33±7.66 10 (0-26)

Clinical characteristics and pre-procedural and post-procedural clinical variables of the patients.

OA-76 OUTCOMES OF PATIENTS WHO HAD CORONARY ANGIOGRAPHY AND PERCUTANEOUS CORONARY PROCEDURE VIA THE DISTAL RADIAL ARTERY: A SINGLE CENTER EXPERIENCE

Adem Aktan

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Aim: The distal transradial artery (dTRA) through the anatomical snuff box (AS) of the hand for coronary angiography (CAG) appears to be a new and potentially more advantageous route for patients undergoing CAG. In recent years, several case series, observational and randomized studies have been published on the safety and outcomes of dTRA access in many centers.

In this study; we aimed to systematically examine patients who underwent CAG via dTRA in our clinic and to obtain more information about its safety and efficacy.

Method: The data of a total of 292 patients who underwent CAG or percutaneous coronary intervention (PCI) via dTRA between January 2019 and December 2021 were analyzed. Ultrasound scanning or guidance was not used in any of the patients. Intervention was attempted in patients with palpable pulse. The clinical features of the patients, angiography indications, procedural features and complications of the procedure were recorded. CAG was performed via dTRA after gaining experience with approximately 100 cases in patients admitted with the diagnosis of acute coronary syndrome. An alternative access route was preferred in case of failure via dTRA.

Results: A total of 292 patients (mean age: 60 ± 11 years, 67% male gender) were analyzed. Other demographic features of the patients are summarized in Table 1. CAG was performed in 45% (n= 103) of the patients with the indication of acute coronary syndrome, and 8% (n=24) of them presented with the diagnosis of STEMI. In patients with a diagnosis of STEMI, puncture was performed within the mean access time (3.4±0.6) without transitioning to the alternative access site.

The rate of PCI in patients who underwent CAG via dTRA was 56% (n= 165)(Table 1). 6F sheath(n=220, 75%) was used most frequently in dTRA intervention. Sheath placement in dTRA had a high success rate (n= 263, 90%) and a lower rate of switching to alternative routes due to failure (n=20, 7%). The most common reasons for switching to alternative routes were the inability to advance sheath (n=9, 3%) and the development of vasospasm (n=8, 2.7%). It was observed that the access time to the distal radial artery decreased as the number of cases increased (Figure 1). Minor hematoma developed in 5.4% (n=16) of the patients, no major hematoma was detected in any case. During the follow-up period, radial artery occlusion developed in 3 patients (1%). Long-lasting local numbness occurred in 12 patients (4.1%) after the procedure. Ecchymosis was observed in 7 patients (2.3%), especially in advanced age. After the procedure, none of the patients developed hand ischemia or edema in the hand. It was observed that effective bleeding control was achieved with light compression.

Conclusion: When dTRA is used by experienced operators, it seems to be a preferable method because of its low complication rates and high procedural success. Randomized studies with more patients are needed on this subject.

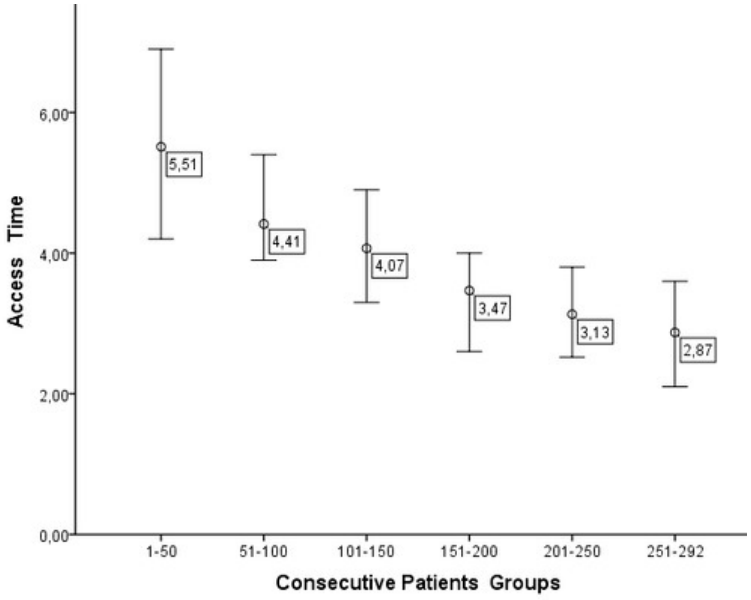
Keywords: Distal Radial Artery, Coronary Angiography, Snuff Box

Table 1. Clinical Features, Angiography Indications, and Features and Complications of the Procedure

Parameters	Number of cases (n:292)
Age	60 ±11
Gender, male, n(%)	195(67)
Smoking, n(%)	102(35)
Diabetes Mellitus, n(%)	172(59)
Hypertension, n(%)	155(53)
Chronic kidney failure, n(%)	3(1)
Obesity, n(%)	6(2)
STEMI, n(%)	24(8)
NSTEMI, USAP, n(%)	79(37)
SAP, n(%)	189(65)
PCI, n(%)	165(56)
Sheath size, 6F, n(%)	220(75)
Procedural success, n(%)	263(90)
İnter-procedural crossover, n(%)	20(7)
Failure to advance sheath, n(%)	9(3.0)
Radial artery occlusion, n(%)	3 (1)
Any Hematoma, n(%)	16(5.4)
Ecchymosis, n(%)	7(2.3)
Local numbness, n(%)	12(4.1)
Radial artery spasm (n,%)	8(2.7)

STEMI; ST segment elevation myocardial infarction, NSTEMI;non-ST segment elevation myocardial infarction, USAP; Unstable angina pectoris, SAP; Stable angina pectoris, PCI; Percutaneous coronary intervention, 6F; Sheath size(french)

Figure 1. Progressive reduction in distal transradial access time in consecutively performed cases



OA-77 SUCCESSFUL PERCUTANEUOS REPAIR OF SUBCLAVIAN ARTERY-VEN FISTULA AS A RESULT OF GUNSHOT INJURY IN THE LATE PERIOD

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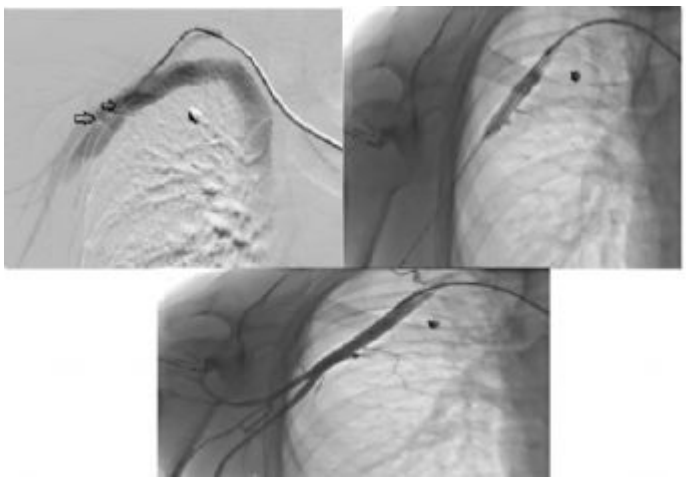
CASE: A 42-year-old male patient was admitted to the hospital with chest pain and vibration in the right thoracic region. From the patient's history; It was determined that there was a gunshot wound to the right thoracic region 7 years ago.Auscultation revealed a 6/6 systolodiastolic murmur at the clavicle in the right hemithorax and a trill on palpation in the same region.Right radial, ulnar and brachial pulses were palpated weakly. Arterio-venous fistula was detected between the subclavian artery and vein in Doppler ultrasonography. In the selective angiography of the right upper extremity, two fistulas of approximately 7 mm and 6 mm in width were detected between the subclavian artery and the vein, and the venous filling phase was observed to be very early (Figure 1). It was also observed that the calibration of the right subclavian artery decreased after the fistula, while the calibration of the subclavian vein increased.Since the patient had undergone previous surgery in this area after a gunshot injury, and it was thought that repetitive surgery would be riskier and the success rate would be lower due to fibrosis, the percutaneous repair was decided. The informed consent form was signed by the patients and their relatives and the process was started. Following local anesthesia to the right femoral region, the right axillary artery was cannulated with a 9 French sheath and an 8 French right guide catheter (JR4). After passing the lesion area with 0.035 wire, an 8x32 mm OTW-covered stent (Atrium Medical) (Figure 1) was implanted, then post dilatation was performed with a 10x40 mm balloon. Minimal leakage was observed in the distal fistula, where the proximal fistula was completely closed after the procedure (Figure 1). After the procedure, a significant improvement in pain in the right upper extremity and an increase in fullness in the distal pulses were observed, while it was noted that the thrill and murmur disappeared. The patient was discharged with acetylsalicylic acid and clopidogrel 1 day after the procedure. Thoracic computed tomography 10 days after the procedure While the stent is observed as a patent in angiography, fistulas It was observed that it was completely closed (Figure 2).

DISCUSSION: Arteriovenous fistulas can be congenital or occur as a result of penetrating or blunt trauma. AVF; It can be asymptomatic, or it can manifest itself in many clinics such as pain, discomfort, high-output heart failure, edema in the extremities, and decreased perfusion.

Endovascular therapy is a safe and effective alternative to open surgery. The morbidity and mortality rates in patients treated with endovascular methods are between 5-10%. In our case, subclavian AVF, which rarely occurred due to gunshot wounds, was successfully treated with endovascular intervention via a graft stent. According to our literature research, our case; is the first case in which successful percutaneous treatment of AVF caused by gunshot wounds was performed.

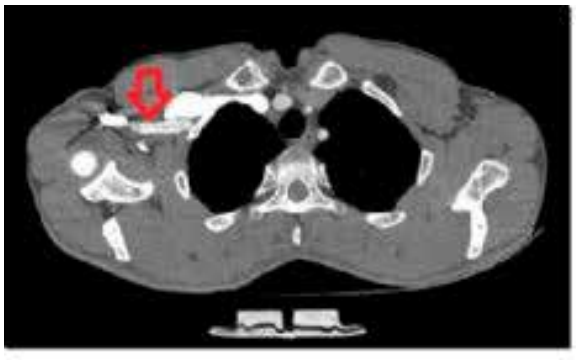
Keywords: Arteriovenous fistula, Gun shot wound, Percoutaneous intervention, Subclavian artery

Figure 1



Subclavian Arterio-venous fistula and percutaneous intervention

Figure 2



While the stent was observed as a patent in the thorax computed tomographic angiography, it was observed that the fistulas were completely closed.

OA-78 LONG-TERM CARDIOVASCULAR MORTALITY AFTER ENDOVASCULAR TREATMENT WITH STENTING IN PATIENTS WITH ILIAC ARTERY DISEASE

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AİM: Predictors of mortality in patient groups who underwent percutaneous revascularization due to iliac artery stenosis are unknown. In this study, it was planned to investigate the relationship between biochemical and demographic characteristics that may be associated with mortality in these patient groups.

Materials-Methods: In this, single center, retrospective trial, between January 2010 and February 2020, 190 patients (177 men, 13 women; mean age, 59 years; age range, 40–73 years) with occlusive disease of the iliac arteries were treated with percutaneous transluminal stent placement. Biochemical parameters were evaluated. Death dates of patients are detected from the municipal death notification system records. The primary endpoint was all-cause death.

Results: Overall, 30 patients died within 10 years. Basal clinical characteristics were smilar between survivors and exitus groups (Table 1). Most of biochemical parameters were similar between groups except CRP and leucocytes. The CRP values in survivals and the deads were 0.74 (2.54) and 11.1 (16.4). There were statistically significant differences between two groups within CRPvalues (p value: 0,01) (Table 2).

Conclusion: A correlation was found between death and high CRP values after iliac stenting. Patients with iliac artery disease are at high risk of cardiovascular morbidity and mortality.

Keywords: Mortality, Iliac Artery Disease, Stenting

Keywords: Illiac artery, stenting, mortality

Tablo 1

	Survivors (n:160)	Exitus (n:30)	p
Age mean ±SD	59.5± 9.9	63.3 ±8.84	0,05
Female gender (%)	%6	%10	0.56
Hyperlipidemia (%)	%21	%13	0.059
Diabetes Mellitus (%)	%20	%23	0.12

Table 1: Basal cilinical charachteristics of groups

Basal cilinical charachteristics of groups

Tablo 2

	Survivors (n:160)	Exitus (n:30)	p
Glucose median (IQR)	122.5 (76)	134 (138)	0.80
BUN median (IQR)	35 (15.2)	40 (26.1)	0.33
Creatinine median(IQR)	0.92 (0.3)	0.91 (0.3)	0.97
HDL mean±SD	36.1 ±8.3	39.1±14.7	0.32
LDL mean ±SD	118.2±41.9	111.9±35.1	0.47
Total cholesterol, mean±SD	193.5±43.4	182.1±53.3	0.23
Uric acid median (IQR)	5.40 (2.08)	6.00 (3.30)	0.40
GGT median (IQR)	25.5 (23.0)	44.0 (83.2)	0,09
CRP median (IQR)	0.74 (2.54)	11.1 (16.4)	0,01
WBC median (IQR)	9.42 (3.42)	8.37 (4.59)	0.03
Hb mean±SD	14.4 ±1.88	13.9 ±2.2	0.31
Plt mean±SD	254.4±73.3	259.7±78.9	0.74
MPV mean±SD	9.15±1.54	9.52±1.56	0.24
Neutrophil median (IQR)	5.87 (2.57)	5.08 (2.66)	0.17
Lymphocyte median (IQR)	2.25 (1.18)	1.96 (1.17)	0.14
Monocyte Median (IQR)	0.63 (0.30)	0.49 (0.22)	0.07
NLR median(IQR)	2.61 (2.1)	2.88 (1.78)	0.57

Clinical and biochemical parameteres between groups CRP: C reactive protein, GGT: Gama glutamil transferase, Hb: Hemoglobin, HDL: High density lipoprotein, HMR: HDL/ Monocyte Ratio, IQR: interquartle range, LDL: Low density lipoprotein, MPV: Mean Plathelet Volume, NLR: Neutrophil/Lymphocyte Ratio, PLR: Platelet Lymphocyte Ratio, PLT: plathelet, SD: standart deviation, WBC: White blood cell,

OA-79 LONG-TERM OUTCOMES AND PREDICTORS IN A COHORT OF PATIENTS WITH ISOLATED MODERATE TO SEVERE AORTIC VALVE DISEASE

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Purpose: The aim of this study was to determine the course, prognosis, and predictors of moderate to severe aortic stenosis (AS) with or without moderate to severe aortic regurgitation (AR).

Methods: Patients with moderate-to-severe AS with or without moderate-to-severe AR who underwent echocardiography followed by left heart catheterization between 2008 and 2015 were retrospectively collected. Those with a left ventricular (LV) ejection fraction <50%, those with moderate to severe mitral valve disease, and those who required coronary by-pass graft operation after coronary angiography were excluded from the study. The clinical and echocardiographic parameters affecting the long-term clinical outcomes and prognosis of the patients were analyzed. Predictors of outcome were determined by Cox regression.

Results: A total of 76 patients with isolated aortic valve disease, 76% of whom were degenerative (n=58), 16% were bicuspid (n=12), 8% were rheumatic (n=6), were included in the study. The mean age of the patients was 64.8±13.0 and 46% (n=35) were male. A total of 39 (51%) patients underwent aortic valve replacement (AVR) (21 metallic prosthesis, ten bioprosthesis, eight TAVI) during 10.2±2.3 years of follow-up. The rate of moderate to severe AR was higher in patients who underwent AVR compared to those who did not (56% vs. 35%, p=0.032). Transvalvular gradient measured by catheterization was predictor of AVR (OR: 1.017; 95% CI, 1.002-1.032; p=0.025). There was no difference in mortality between the groups with and without moderate-severe AR. A total of 22 patients died, six (15%) in the AVR group (five patients with metallic AVR, one patient with TAVI) and 16 (43%) in the non-AVR group (p=0.004). Of the patients who died, 95% were degenerative (n=21), 5% were rheumatic (n=1) etiology. There was no death in the bicuspid aortic valve group. AVR was a negative predictor of mortality (HR: 0.352; 95% CI, 0.131-0.941; p=0.037), while age (HR: 1.209; 95% CI, 1.001-1.462; p=0.049) and metallic AVR (HR: 1.597; 95% CI, 1.048-2.432; p=0.029) were positive predictors. Among the echocardiographic parameters, left atrial diameter (HR: 4.019; 95% CI, 1.794-9.002; p<0.001) and TAPSE/sPAP ratio (HR:.000; 95% CI,000-.044; p=0.012), as well as LV end-diastolic pressure measured by catheterization (HR: 1.093; 95% CI, 1.011-1.182; p=0.025) were predictors of mortality.

Conclusion: Isolated moderate to severe aortic valve disease without AVR has a poor prognosis. Among the AVR options, the outcomes of bioprosthesis and TAVI seem better. In aortic valve disease, even if the LV ejection fraction is preserved, diastolic and right heart functions are prognostic determinants.

Keywords: aortic valve, stenosis, regurgitation, prognosis

OA-80 THE PREVALENCE OF CONSUMPTION OF ALTERNATIVE HERBAL THERAPIES AND COMPLEMENTARY NUTRIENTS IN ADDITION TO MEDICAL TREATMENT IN CORONARY ARTERY DISEASE PATIENTS WHO APPLIED TO A CARDIOLOGY OUTPATIENT CLINIC

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Objective: Complementary therapies are a form of treatment that patients apply in addition to their traditional medical treatments. Alternative treatments are known as approaches used instead of traditional treatments. People who prefer alternative and complementary therapies often resort to these options to strengthen their health, regress the symptoms of their chronic diseases. In our study, we aimed to determine the frequency of the usage of herbal-based alternative therapies and nutritional supplement products in coronary artery disease (CAD) patients.

Method:CAD patients admitted to the cardiology outpatient clinic between December 2021 and May 2022 were included in the study. The age, gender, job status, body mass index and educational status of these patients, and other demograiphic data were recorded. The usage of cardiovascular drugs were questioned. Fish oil, garlic, lemon, echinacea, nettle, flaxseed, canola oil, ginger, turmeric, ginkgo bloba and other similar products, if any, from herbal-based alternative therapies and support products their use was investigated. The group that used alternative products (Group 1) and the group that did not use (Group 2) were compared. A p value below 0.5 was considered statistically significant.

Results: Group-1 consisted of 223 patients and Group-2 consisted of 397 patients. There was no statistically significant difference between the groups in terms of age, gender, BMI and job status. There was a significant difference between the two groups in terms of education level and exercise status ($\chi2(2, N=620)=23.35$, $p<0.001$ and $\chi2(1, N=620)=17.08$, $p<0.001$, respectively). There was a significant difference between the two groups in terms of adherence to diet ($\chi2(3, N=620)=132.06$, $p<0.001$). When we looked at the Z scores and p values within the group after the Chi square test was performed, there was no significant difference between the groups for DM and HPL, but a significant relationship was observed between the non-diet and the salt-free diet. Cardiovascular risk factors HT, HPL, smoking, CKD and obesity were higher in Group-2 ($p<0.05$). The usage of antihypertensive, lipid-lowering and antianginal drugs was higher in group 2 ($p<0.001$) (Table-1). The most commonly used alternative herbal supplements or nutritional products are garlic (30.38%), lemon (24.46%) and black cumin (9.14%), respectively. The least used preparation was Gingko Bloba (2.96%) (Figure-1).

Conclusion: In our study, we found that 36% of CAD patients used at least some form of alternative herbal therapies and complementary nutrients. Garlic and lemon were the most preferred products. There was a significant relationship between education level, exercise status and adherence to diet, and the use of alternative herbal supplements and nutritional products.

Keywords: coronary artery disease, herbal therapies, complementary nutrients, garlic

Figure-1

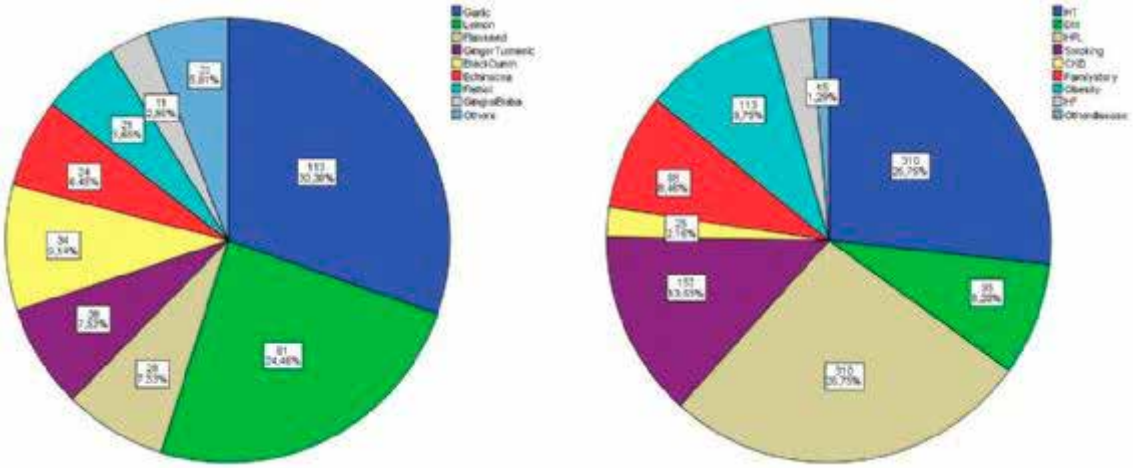

Figure-1: Names and frequency-numbers of alternative herbal supplements and complementary nutritional products ('others' includes the vinegar, panax, herbal teas, and nurs) (A). CV risk factors of CAD patients visited the outpatient clinic ('others' includes the valvular diseases, arrhythmias, aortic vascular diseases etc.) (B).

Table-1

Variables	Group 1 (n:223)	Group 2 (n:397)	p
Age (year)	61.6±11.6	60.4±11.4	0.239
Gender Male (n,%) Female (n,%)	 141 (22.7) 82 (13.2)	 253 (40.8) 144 (23.2)	0.901
BMI (kg/m2)	27.2±3.5	27.0±3.1	0.582
Level of Education High school graduate (n,%) Primary-secondary school (n,%) No school (n,%)	 67 (10.8) 54 (8.7) 102 (16.5)	 83 (13.4) 173 (27.9) 141 (22.7)	<0.001
Job Status Yes (n,%) No (n,%)	 90 (14.5) 133 (21.5)	 157 (25.3) 240 (38.7)	0.843
Exercise status Yes (n,%) No (n,%)	 55 (8.9) 168 (27.1)	 47 (7.6) 350 (56.5)	0.008
Adherence to diet HPL (n,%) DM (n,%) Salt-free (n,%) No diet (n,%)	 35 (5.6) 17 (2.7) 67 (10.8) 104 (16.8)	 39 (6.3) 27 (4.4) 5 (0.8) 326 (52.6)	<0.001
HT (n,%)	145 (23.5)	165 (26.6)	<0.001
DM (n,%)	48 (7.7)	47 (7.6)	0.243
HPL (n,%)	132 (21.3)	178 (28.2)	0.001
Smoking (n,%)	71 (11.5)	86 (13.1)	0.005
CKD (n,%)	5 (0.8)	20 (3.2)	<0.001
Family History (n,%)	33 (5.3)	65 (10.5)	0.607
Obesity (n,%)	53 (8.3)	60 (9.7)	0.007
HF (n,%)	19 (3.0)	17 (2.7)	0.113
*Others (n,%)	6 (1.0)	9 (1.3)	0.332
Antiaggregant drugs (n,%)	223 (36)	392 (63.2)	0.166
Antihypertensive drugs (n,%)	141 (22.7)	155 (25.0)	<0.001
Antidiabetic drugs (n,%)	48 (7.7)	36 (5.8)	<0.001
Lipid lowering drugs (n,%)	134 (21.6)	167 (26.9)	<0.001
¥Antianginal drugs (n,%)	104 (16.8)	123 (19.8)	<0.001
Anticoagulant drugs (n,%)	0 (0.0)	5 (0.8)	0.224

*Demographic data of patients using and not using alternative herbal supplements and complementary nutritional products. Group 1: patients using alternative herbal supplements and complementary nutritional products; Group 2: patients who do not use alternative herbal supplements and complementary nutritional products; BMI: body mass index; HPL: hyperlipidemia; DM: diabetes mellitus; HT: hypertension; CKD: chronic kidney disease; HF: heart failure For level of education, $\chi 2$ (2, N=620) =23.35, p<0.001 For exercise status, $\chi 2$ (1, N=620) =17.08, p<0.001 For adherence to diet, $\chi 2$ (3, N=620) =132.06, p<0.001 * Valvular diseases, arrhythmias, aortic vascular diseases etc. ¥ nitrates, ranolazine, trimetazidine, ivabradine*

OA-82 INDEX OF ARTERIAL STIFNESS, EPICARDIAL FAT TISSUE THICKNESS, BIOELECTRICAL IMPEDANCE AND DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS, ANKYLOSING SPONDYLITIS, NON RADIOGRAPHIC AXIAL SPONDYLARTRITIS, AND HEALTHY ADULTS

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Objectives: The relationship between epicardial adipose tissue and arterial stiffness parameters, which are indirect and non-invasive indicators of atherosclerosis underlying the etiology of cardiovascular diseases, and RA, AS, PsA is known. However, there is no study evaluating the relationship between EAT thickness, arterial stiffness and atherosclerosis in patients with non-radiographic axial spondylarthritis. If a correlation is shown between non-invasive indicators of cardiovascular involvement and non-radiographic spondylarthritis disease group, it is important to guide clinicians to ideas and guidelines for initiating treatment in the early stages of the disease.

Method: We conducted the study in Ankylosing Spondylitis, Non-radiographic Axial Spondylarthritis and healthy adults followed in the Rheumatology outpatient clinic between March 1, 2014 - March 1, 2015. Patients without diabetes mellitus, hypertension or hyperlipidemia were included in the study. CRP, ESR, hemogram, serum lipids, kidney function tests were studied. Arterial stiffness parameters: augmentation index(AI), pulse wave velocity(PWV), central blood pressure(CKP), augmentation pressure(AP) were measured by Sphygmocor® applanation tonometer. For body composition determination by bioelectrical impedance analysis (BIA), body fat percentage, body muscle mass, impedance, BMI (BMI) were evaluated with Tanita TBF-300M "Body Composition Analyzer" device. Epicardial fat tissue measurement was performed from each patient by echocardiographic method.

Results: 36 ankylosing spondylitis, 30 non-radiographic axial SpA, 32 healthy adults were included in the study. There was no significant difference between the groups in terms of age, gender, smoking rate, waist circumference, hip circumference, BMI (BMI), systolic and diastolic blood pressure, number of patients with metabolic syndrome, lipid parameters, number of patients in the active phase of the disease. There were significant differences in terms of disease duration, CRP and ESR. No significant difference was observed between the groups in terms of total body fat percentage in the body composition evaluation performed with Tanita. A statistically significant difference was found between AS, nonradiographic AxSpA and control groups in terms of EYD in echocardiographic measurements (p=0.04). Significant differences were observed between the groups in terms of arterial stiffness parameters, augmentation index (p=0.02) and augmentation pressure (p=0.003).

Conclusion: In our study, we found that in the early stage of axial spondyloarthropathies, increased EAT thickness and arterial stiffness parameters such as augmentation index and augmentation pressure were higher in AS patients compared to nonradiographic axSPA patients. From this point of view, it has been concluded that cardiovascular effects begin in the early stages of the disease and it is beneficial to follow these patients more closely in terms of cardiovascular risks.

Keywords: Arterial stiffness, Epicardial fat tissue, Axial Spondylarthritis

Figure - 2

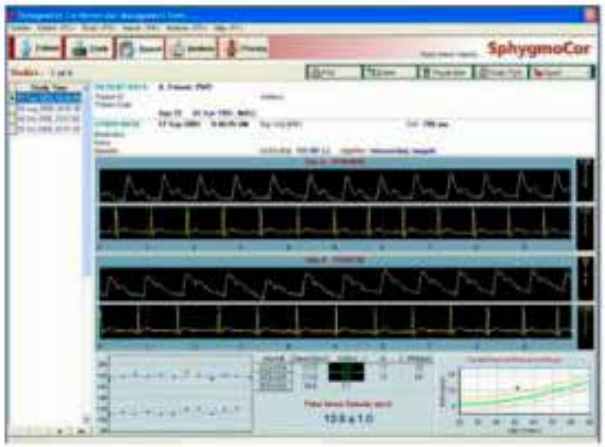

Figure-2: Pulse wave velocity measurement with applanation tonometry

Figure-1

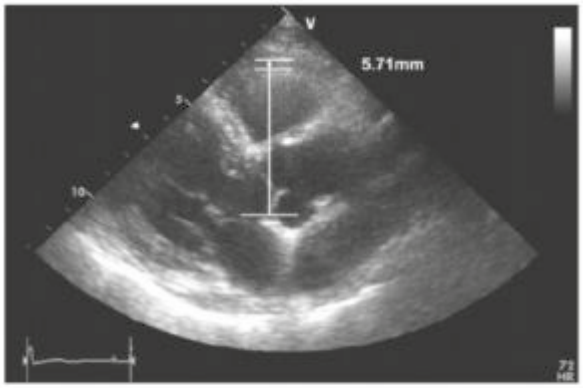

Figure-1: Epicardial fat tissue measurement in parasternal long axis imaging

TABLE OF STATISTICAL RESULTS OF DEMOGRAPHIC, LABORATORY, ECHOCARDIOGRAPHIC, ARTERIAL STİFFNESS PARAMETERS

	AS (n=36)	Nr-axSpA (n=30)	Control (n=32)	P value	P1 value	P2 value	P3 value
Age,year	42,1±11,4	37,9±9,5	35,5±5,7	0,11			
Gender male, %	24 (66,7)	18 (60)	18 (56,2)	0,64			
Disease duration, years	16,5±10,1	7,9±4,3	-----	<0,0001	<0,0001		
Smoking rate, %	20 (55,6)	14 (46,7)	17(53,1)	0,62			
BMI, kg/m2	25±5,7	24,4±4	25,1±3,3	0,66			
Waist circumference, cm	90,7±14,2	86,2±11,2	88,4±12,4	0,16			
Hip circumference, cm	100,9±10,6	101,8±7,2	98±9,4	0,69			
Active disease, %	7 (19,4)	8 (26,7)	-----	0,56			
Systolic blood pressure, mmHg	120±12	121±14	122±11	0,8			
Diastolic blood pressure, mmHg	72±9	71±9	69±10	0,58			
CRP, mg/L	14,7±20,9	2,5±2,4	2,1±2	0,04	0,001	<0,001	0,04
ESR, mm/h	24,4±20,7	15,2±11,6	9,1±6,7	<0,0001	0,03	<0,001	0,004
Total Cholesterol, mg/dL	182,3±37,1	187,1±37,7	169,1±36	0,61			
HDL Cholesterol, mg/dL	45,9±8,2	51,8±22,1	51,3±14,6	0,14			
LDL Cholesterol, mg/dL	109,7±28,4	106,6±37,8	97±27,8	0,7			
Triglyceride, mg/dL	126±77,2	127±70,2	103,8±46,8	0,95			
Glucose, mg/dL	87,3±9,4	88,1±9,1	81,6±9,3	0,74			
Atherogenic index	4±0,9	4,7±3,3	3,4±0,8	0,2			
Metabolic syndrome, %	6 (16,7)	4 (13,3)	2 (7,1)	0,74			
Pulse wave velosity, m/s	6,3±1,9	6,1±1,3	5,8±1,3	0,64			
Augmentation index,%	23,8±14,8	19,3±24	17,1±13,4	0,02	0,03	0,4	0,08
Augmentantion Pressure, mmHg	11,4±7,9	8,1±7,5	7,5±6	0,003	0,02	0,005	0,05
Epicardial adipose tissue thickness, cm	0,6±0,1	0,5±0,08	0,40±0,11	0,04	0,03	0,01	0,03
Total body fat percentage, %	22,1±10,4	21,9±9,9	21,6±8	0,96			

p; comparison of all groups, p1; AS and Nr-axSpA comparison, p2; AS and control group comparison, p3; Comparison of Nr-axSpA and control group (p<0.05 significant value)

OA-83 PREDICTORS OF INAPPROPRIATE SHOCKS IN A PATIENT COHORT WHO PRESENTED TO THE EMERGENCY DEPARTMENT WITH ICD SHOCK THERAPY

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Objective: Implantable cardioverter-defibrillators (ICD) are implanted to prevent sudden cardiac death in patients with life-threatening cardiac arrhythmias. While ICDs may benefit patients, they also have adverse effects in cases of inappropriate shocking, including deterioration in the quality of life, psychological disturbances, and provocation of ventricular arrhythmias. In this context, we aimed to evaluate independent predictors of inappropriate ICD shocks in our patient cohort who presented to emergency service with ICD shocks.

Method: A total of 318 patients receiving ICD shock therapy were included in this retrospective study. The patients were divided into 169(53.1%) appropriate shock recipients and 149(46.9%) inappropriate shock recipients. The clinical, laboratory, and demographic characteristics of the patients were compared.

Results: The mean age of appropriate shock recipients was 59(±11.4) years, 136(80.5%) were male, and the mean age of inappropriate shock recipients was 58.5(±13.1) years, and 109(73.2%) were male. Most of the inappropriate shocks were due to atrial arrhythmias. Most atrial arrhythmias were non-paroxysmal atrial fibrillation with 53(43%) patients. However, 38 (31%) patients had paroxysmal atrial fibrillation, and 32 (26%) had other supraventricular arrhythmias. In multivariate logistic regression analysis, primary prevention implantation indication (OR=2.053, 95% CI 1.091-3.863; p=0.026), atrial arrhythmia (OR=9.652, 95% CI 5.447-17.102; p<0.001) and no use of amiodarone (OR=0.428, 95% CI 0.233-0.786; p=0.006) were found to be significant independent risk factors for inappropriate ICD shock therapy.

Conclusion: Despite having clear benefits for high-risk patients, ICDs may have detrimental effects on patients with inappropriate shocks. As inappropriate shocks are associated with high morbidity and worse prognosis, it is essential to define high-risk patients with inappropriate shocks and take appropriate precautions to prevent them.

Keywords: appropriate shock, inappropriate shock, implantable cardioverter-defibrillator, predictor

Table-1

Table-1. Demographic, clinical and laboratory characteristics of patients with ICD shock

Variables	Appropriate ICD shock (n=169)	Inappropriate shock (n=149)	P value
Age, n(years)	61(21-81)	60(18-86)	0.491
Male gender, n(%)	136(80.5)	109(73.2)	0.121
Primer prevention implantation, n(%)	94(55.6)	103(99.1)	**0.015**
LVEF <35, n(%)	94(56.4)	110(70.4)	**0.009**
Device			0.630
Single-chamber, n(%)	97(57.4)	93(62.4)	
Dual-chamber, n(%)	63(37.3)	50(33.6)	
Cardiac resynchronization therapy, n(%)	9(5.3)	6(4)	
Underlying heart disease			0.656
Ischemic cardiomyopathy, n(%)	93(55)	66(44.3)	
Non-ischemic dilated cardiomyopathy, n(%)	55(32.5)	48(32.2)	
Hypertrophic cardiomyopathy, n(%)	5(3)	15(10.1)	
Primary electrical disease, n(%)	6(3.6)	9(6)	
Valvular cardiomyopathy and other heart disease with low ejection fraction, n(%)	3(1.8)	6(4)	
Unknown etiology, n(%)	7(4.1)	5(3.5)	
Wall motion abnormality			**0.004**
No wall motion abnormality, n(%)	70(41.4)	86(57.7)	
Localized wall motion abnormality, n(%)	99(58.6)	63(42.3)	
Atrial arrhythmia, n(%)	56(33.1)	123(82.6)	**<0.001**
NYHA class, n(%)			0.299
Class-1	12(7.1)	17(11.5)	
Class-2	116(68.6)	102(68.9)	
Class-3	39(23.1)	29(19.6)	
Class-4	2(1.1)	0(0)	
Diabetes mellitus, n(%)	39(23.1)	26(17.4)	0.214
Hypertension, n(%)	83(47.9)	61(40.9)	0.213
Stroke, n(%)	16(9.5)	14(9.4)	0.583
Chronic renal failure, n(%)	54(32)	35(23.5)	0.093
Hypothyroidism, n(%)	22(13)	25(16.8)	0.346
GFr (mL/min/1.73m²)	79(35.6-150)	72(29-140)	0.570
Hemoglobin (g/dl)	13.40±1.71	13.55±1.88	0.460
White blood cell count (10^3/uL)	8.88(4.14-44.75)	8.87(3.96-26.15)	0.997
Sodium (mEq/L)	137(129-146)	138(130-149)	**0.028**
Potassium (mmol/L)	4.2(2.80-6.40)	4.1(2.90-6.10)	0.617
ß-blocker	133(78.7)	118(79.9)	0.798
ACE inhibitors/ARB	98(58)	71(47.7)	0.065
Amiodarone	66(39.1)	33(22.1)	**0.001**
CCB	7(4.1)	16(10.7)	**0.023**
Aldosterone	85(50.3)	65(43.6)	0.234
Diuretic	83(49.1)	72(48.3)	0.888
LVEDD (mm)	60(40-85)	58.73(34-79)	**0.001**
LVESD (mm)	50(20-80)	47(20-75)	**0.003**
Left atrium diameter (mm)	45(27-58)	45(25-65)	0.154
Recurrent application	65(38.5)	42(28.2)	0.053
Implantation time before ICD shock (month)	26(0.25-180)	21(0.30-144)	**0.028**

Abbreviations: ACE inhibitors: angiotensin converting enzyme inhibitors, ARB: angiotensin receptor blocker, CCB: calcium channel blocker, GFr: glomerular filtration rate, ICD: implantable cardioverter-defibrillator, LVEDD: left ventricle end diastolic diameter, LVEF: left ventricle ejection fraction, LVESD: left ventricle end systolic diameter, NYHA: new york heart association.

Demographic, clinical and laboratory characteristics of patients with ICD shock

Table-2

Table-2: Multivariate logistic regression analysis representing the independent predictors of inappropriate ICD shock

Variables	OR	95%CI	P value
Primer prevention	2.053	1.091-3.863	**0.026**
LVEF <35 (%)	0.697	0.317-1.532	0.369
Localized wall motion abnormality	0.682	0.392-1.190	0.178
Atrial arrhythmia	9.652	5.447-17.102	**<0.001**
Sodium (mEq/L)	1.072	0.996-1.153	0.065
Not using amiodarone	0.428	0.233-0.786	**0.006**
CCB	1.960	0.613-6.267	0.257
LVEDD (mm)	0.976	0.887-1.075	0.627
LVESD (mm)	1.003	0.923-1.090	0.940
İmplantation time before ICD shock (month)	0.992	0.982-1.001	0.095

Abbreviations: CCB: calcium channel blocker, ICD: implantable cardioverter-defibrillator, LVEDD: left ventricle end diastolic diameter, LVEF: left ventricle ejection fraction, LVESD: left ventricle end systolic diameter

Multivariate logistic regression analysis representing the independent predictors of inappropriate ICD shock

OA-84 OUR CLINICAL EXPERIENCE IN ANESTHESIA MANAGEMENT FOR INTERVENTIONAL CARDIOLOGY, SINGLE CENTER STUDY

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Objective: In this study, we aimed to share the features of the clinical and anesthesia methods in our patients who were treated under anesthesia in our interventional cardiology laboratory between June 2021 and 2022.

Method: In the last year, a total of 340 patients who underwent this type of interventional treatment, mainly ASD, PFO, mitral balloon valvuloplasty, PDA, AF ablation, EVAR and TEVAR, were administered different levels of anesthesia. The type of anesthesia to be performed was determined according to the ASA value, duration of the procedure, duration of TEE use, patient's intellectual status and patient's chest deformity. The clinical demographic characteristics of the patients and the details of the anesthesia methods were recorded.

Results: In our study, 190 of patients(55.8%) were female and 150 (44.1%) were male. Age of the patients was between 22 and 89, number of intubated patients was 44 (12.9%), number of patients receiving deep sedation was 69 (20.2%) and number of patients receiving mild sedation was 227 (66.7%). After light sedation, patients woke up within an average of 5 [3-9] minutes. Patients who received deep sedation woke up within an average of 8 [5-11] minutes.

Conclusion: In cardiological procedures in the cath lab, shorter awakening times and intensive care hospitalization can be successfully achieved with mild sedation.

Keywords: interventional cardiology, general anestesia, sedation

INTERNATIONAL ACADEMY OF YOUNG CARDIOLOGISTS

2022

POSTER PRESENTATIONS

PP-01 A CASE OF GIANT AND MOBILE RIGHT VENTRICULAR THROMBUS DETECTED IN ECHOCARDIOGRAPHIC EVALUATION

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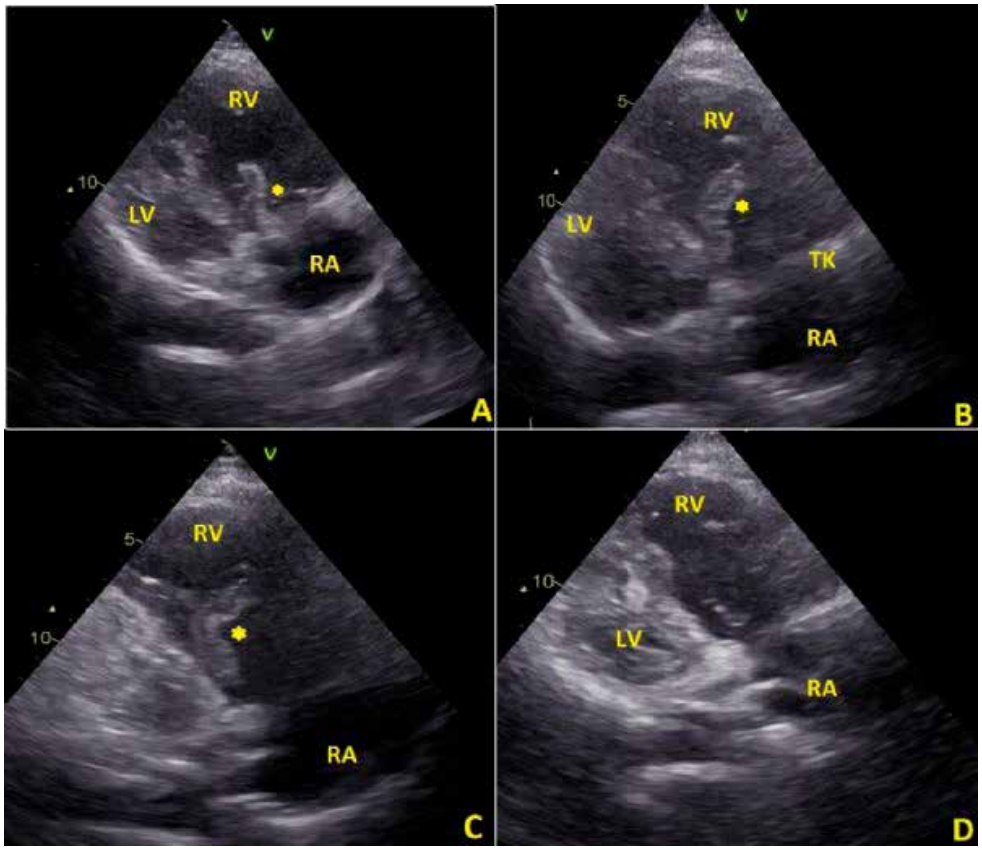
Case: A 69-year-old male patient presented to the emergency department with the complaint of dizziness and speech. The patient had hypertension. On physical examination, patient's blood pressure was 114/86 mmHg, heart rate was 89 beats/min, and 2/6 systolic murmur was detected. Electrocardiography showed sinus rhythm and ventricular extra beats. Thoracic computerized tomography scan was found to be consistent with pulmonary embolism. Transthoracic echocardiography that was performed for the evaluation of right heart chambers showed a large (33x14 mm diameter) and mobile thrombi (Figures 1B, 1C, and 1D) moving from the right atrium to the right ventricle (Figure 1A), and then moving from the right ventricle to the pulmonary artery. The patient was operated urgently by the cardiovascular surgeon and pathological examination showed a thrombus material of 45x51 mm, which extended from the bilateral pulmonary arteries to the right ventricle.

Conclusion: Mobile right heart thrombus is usually associated with massive pulmonary embolism. Patients with mobile right heart thrombus have a higher risk of hemodynamic deterioration and generally have a higher mortality rate than patients without it. Presence of mobile right heart thrombus on echocardiography is associated with poor prognosis. For that reason, early diagnosis and prompt treatment of patients with mobile right heart thrombus in the emergency room are important because a failure of diagnosis can lead to fatal outcomes when treated with heparin alone.

Keywords: Mobile, right ventricle, giant

Figure 1



A-) Giant and mobile thrombus extending from the right atrium to the right ventricle on transthoracic echocardiography B, C, D-) Giant and mobile thrombus moving from the right ventricle to the pulmonary artery on transthoracic echocardiography

PP-02 NON-BACTERIAL THROMBOTIC ENDOCARDITIS: A RARE PRESENTATION OF UNDIAGNOSED PANCREATIC CANCER

Samet Yavuz, Tufan Çınar, Süha Asal, Murat Selçuk, Vedat Çiçek, Şahhan Kılıç, Selami Doğan, Mehmet Şeker, Mert Babaoğlu, Almina Erdem, Yetkin Korkmaz, Ahmet Lütfullah Orhan

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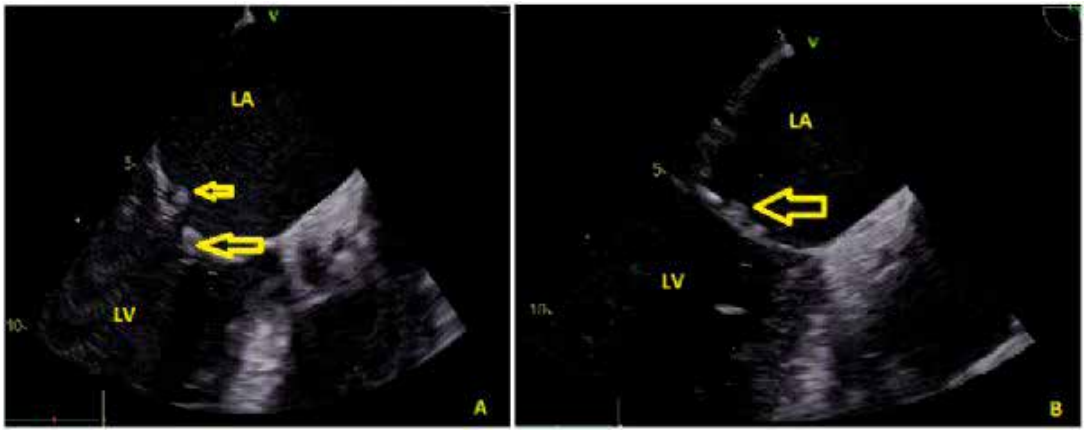
Case: A 68-year-old male patient was admitted to our emergency department with complaints of left-sided weakness and headache. The patient's diffusion magnetic resonance imaging was compatible with ischemic cerebrovascular disease (CVD). The patient was consulted to our department. The patient had no complaints of chest pain or shortness of breath. The patient's electrocardiogram showed a normal sinus rhythm. On physical examination, blood pressure was 132/74 mmHg, heart rate was 78 minutes, and fever was 38.5 oC. A 3/6 systolic murmur was heard in the mitral area and a 2/6 diastolic murmur was heard in the aortic area. The transthoracic echocardiography of the patient showed a normal left ventricular ejection fraction, +3 mitral insufficiency, +2 aortic insufficiency and left ventricular concentric hypertrophy. Transesophageal echocardiography (TEE) was performed, in which showed an image consistent with suspicious vegetation on the aortic (8x6 mm) and mitral (12x12 mm on the left atrial surface of the mitral valve) valves (Figures 1A and 1B) and (Figures 2A and 2B). With the preliminary diagnosis of infective endocarditis (IE), 3 sets of blood cultures obtained at 2 separate intervals were negative. Also, serological tests were negative regarding to culture-negative IE etiologies. Thoracoabdominal computed tomography (CT) was performed, which revealed a suspicious mass image in the pancreas. The patient's positron emission tomography was compatible with pancreatic cancer, and he was diagnosed with non-bacterial thrombotic endocarditis (NBTE). Because of patient's poor prognosis, cardiac surgery was not recommended by the heart team.

Conclusion: NBTE was first described by Ziegler in 1888 as fibrin thrombi in degenerated heart valves. In autopsy studies, the histological diagnosis of NBTE is defined by the presence of a mixture of platelets and fibrin in the valve in the absence of microorganisms. In clinical practice, NBTE is rarely diagnosed antemortem and can be missed in most cases because a definitive histological diagnosis is not possible. Although a histological confirmation was not possible in our case, the diagnosis of NBTE was made with clinical findings and appropriate imaging (TEE and CT). In terms of anatomical involvement, the aortic valve is most commonly affected, followed by the mitral valve or, even rarely, both aortic and mitral valve involvement, as in our case.

Compared to other cancers, pancreatic cancer triggers excessive coagulation; thus, this cancer had the highest risk of venous thromboembolism (VTE). In addition, NBTE is associated with hypercoagulable states such as disseminated intravascular coagulation (DIC). While VTE is a common finding in patients with pancreatic cancer, NBTE is even rarely diagnosed.

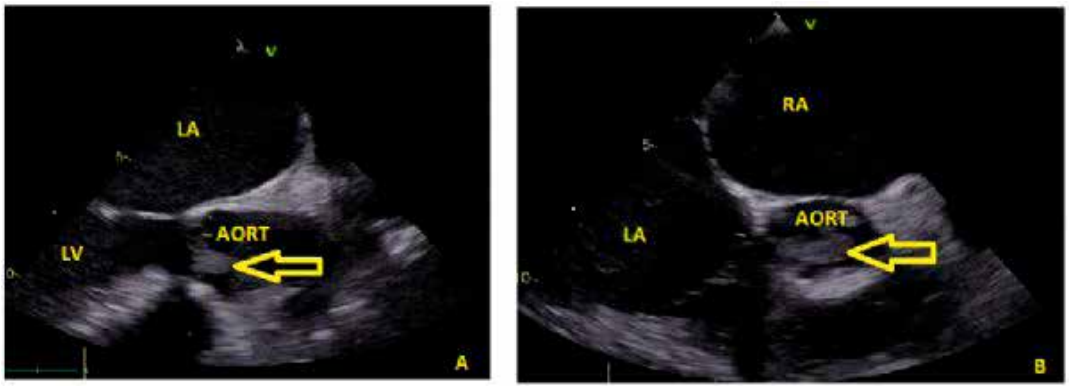
Keywords: Non-bacterial, thrombotic endocarditis, pancreatic cancer

Figure 1



A and B-) Transesophageal echocardiography images showing a mass on the left atrial surface of the mitral valve anterior leaflet, which was compatible with vegetation

Figure 2



A and B-) Transesophageal echocardiography images showing a mass on the aortic valve, which was compatible with vegetation

PP-03 A DIAGNOSIS OF EBSTEIN ANOMALY ACCOMPANIED BY A BICUSPID AORTIC VALVE IN AN ASYMPTOMATIC 74 YEAR OLD PATIENT: A CASE REPORT

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Case: A 74-year-old male patient was referred to cardiology outpatient clinic for preoperative risk assessment. The patient was planned to undergo an elective inguinal herniorraphy surgery. The patient did not have any symptoms such as dyspnea, syncope or angina. His medical history was significant for controlled hypertension with ramipril 5 mg once daily, and he did not have a history of coronary artery disease, chronic obstructive lung disease or diabetes mellitus. In physical examination, a grade 2/6 systolic murmur was heard on Erb's point and grade 2/6 systolic murmur on aortic area. No pathologic venous waves or pretibial edema was noted. Chest radiograph showed laterally displaced left ventricular apex and an enlarged aortic conus. Electrocardiogram (ECG) showed sinus rhythm with right bundle branch block (RBBB) morphology. An echocardiogram was performed, revealing a displacement of anterior leaflet of the tricuspid valve 31 mm apically with grade 2 tricuspid regurgitation, which was compatible with Ebstein's anomaly (EA) (Figure 1A and 1B). It also showed a mild bicuspid aortic valve stenosis (peak/mean gradient: 25/15 mmHg and an orifice area greater than 1.5 cm2) and an aneurysmatically dilated ascending aorta (AA) with a 49 mm diameter (Figure 1A and 1C). Since the patient was asymptomatic, a regular outpatient follow-up was recommended. The operation was uneventful, and he was discharged without complications.

Conclusion: EA is characterized by apically displaced tricuspid valve leaflets, and an "atrialized" right ventricle (RV), describing the portion of the RV added to the right atrium (RA). It is a rare congenital disorder affecting 1 in 200,000 live births, and accounts for less than a percent of congenital heart diseases. Although there are a few cases of EA in the literature that are asymptomatic in a similar age at the time of diagnosis, to the best of our knowledge, this is the oldest patient who were diagnosed with an EA in our country. Cardinal symptoms include cyanosis, sudden cardiac death, arrhythmias, right heart failure. Asymptomatic and incidental presentation of our case is also of interest.

One of the associated cardiac abnormalities of the EA is bicuspid aortic valve. It can be hypothetized that EA is related to connective tissue diseases. In our case, the patient had an aneurysmatically dilated DA and an inguinal hernia, both of which could be attributed to weakened connective tissue structure. There are cases of inguinal hernia and osteogenesis imperfecta in the literature in patients with EA, which could provide additional basis for this hypothesis. In summary, as shown in our case, EA should be kept in differential diagnosis in elderly patients, even if the patient is asymptomatic.

Keywords: Ebstein's anomaly, elderly, asymptomatic, bicuspid aortic valve

Figure 1

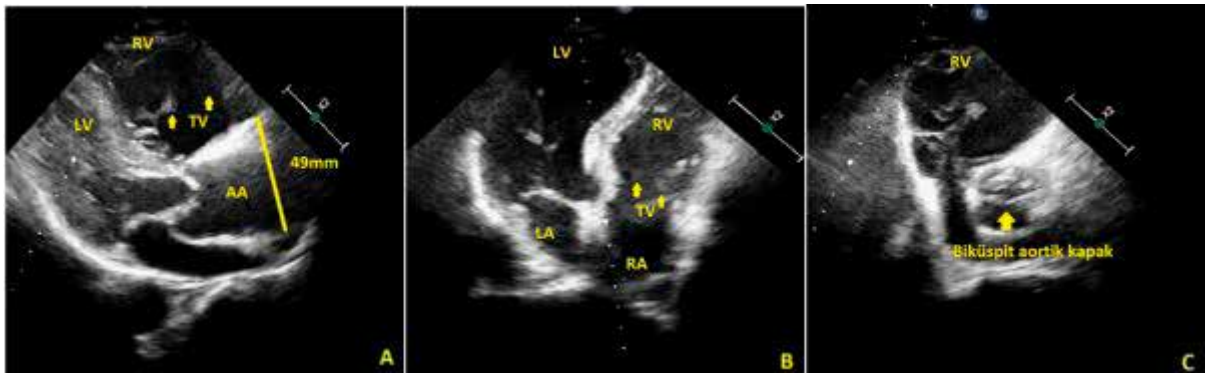


Figure 1 A- Echocardiography image showing a displacement of anterior leaflet of the tricuspid valve 31 mm apically and aneurysmatically dilated ascending aorta (AA) with a 49 mm diameter B- Echocardiography image showing a displacement of anterior leaflet of the tricuspid valve 31 mm apically, which was compatible with Ebstein's anomaly C- Echocardiography image showing a bicuspid aortic valve Abbreviations: LV, left ventricle; RV, right ventricle; LA, left atrium; RA, right atrium; TV, tricuspid valve; AA, ascending aorta

PP-04 COEXISTENCE OF AORTIC PSEUDOCOARCTATION AND MITRAL VALVE PERFORATION IN A PATIENT WITH TAKAYASU'S ARTERITIS: COINCIDENCE OR ASSOCIATION?

Sinan Cerşit

KOŞUYOLU YÜKSEK İHTİSAS EĞİTİM VE ARAŞTIRMA HASTANESİ

Background: Takayasu's arteritis (TA) is a rare, systemic, inflammatory large-vessel vasculitis of unknown etiology that most commonly affects females of childbearing age and causes narrowing and aneurysmal formation of the aorta as well as aortic regurgitation.1-3 However, concomitant stenosis and dilatation of aorta, and anterior mitral leaflet perforation leading to moderate regurgitation is very rare with TA. In this article, we report a case of TA, which is associated or coincidental with other comorbidities.

Case: A 26-year-old female patient with eight-year history of TA had undergone Bentall procedure involving composite replacements of aortic root with 30 mm Dacron tube graft and St. Jude, No. 23 mechanical aortic valve (St. Jude Medical Drive. St. Paul, Minnesota, USA) due to severe aortic aneurysm and valve regurgitation seven years ago and presented with chest pain and labile hypertension. She was treated with combined immunosuppressive therapy of prednisolone and azathioprine for five years. Additionally, the patient was on warfarin treatment with a target international normalized ratio between 2-4 for prosthetic aortic valve replacement. On physical examination, she had rhythmic heart beats, 3/6 systolic murmur on the fifth left intercostal space. Her blood pressure on the right arm was 150/96 mmHg and there was no pressure difference between her right arm and legs. Routine blood tests showed that inflammatory markers and white blood cell counts were within normal limits and two blood culture sets taken on admission were negative. Electrocardiography revealed a normal sinus rhythm with a ventricular rate of 75 beats/minute. Comprehensive transthoracic and real-time two- and three-dimensional transesophageal echocardiography showed

2 mm-anterior leaflet perforation with moderate regurgitation on medial side of native mitral

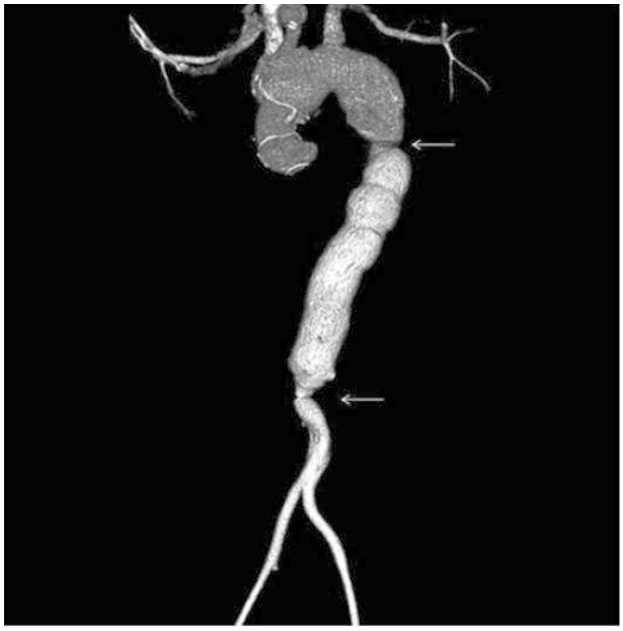
valve as well as normal left ventricular function and wall motion, and functionally normal aortic root replacement with mechanical composite aortic valve. There was no annular calcification, and no valvular vegetations were seen. Three-dimensional thoracoabdominal computed tomography revealed aneurysm and coarctation of aorta with diffuse calcifications on the descending aorta (Figure). Conventional aortography was

performed using a pigtail catheter which revealed an aortic gradient of 15-20 mmHg. Since there was no significant hemodynamic gradient and moderately mitral valve regurgitation, medical treatment was advised. Written informed consent was obtained from the patient.

Conclusion: inflammatory manifestations of TA are various and poorly understood. The coexistence of TA and aortic pseudocoarctation and MVP is very rare but probably not coincidental. TA may cause aortic narrowing and aneurysm as well as MVP by stimulating inflammatory processes.

Keywords: Aortic pseudocoarctation, computed tomography, mitral valve perforation, Takayasu's arteritis, two- and three-dimensional transesophageal echocardiography

FIGURE



PP-05 CATHETER ABLATION OF PREMATURE VENTRICULAR CONTRACTIONS ORIGINATING FROM LV SUMMIT IN A PATIENT WITH THE BIOPROSTHETIC SUTURELESS AORTIC VALVE

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Objective: Catheter ablation for ventricular arrhythmias has become prevalent in recent years. The left ventricle (LV) outflow tract (LVOT) is a common location for the origin of idiopathic premature ventricular contractions (PVC) or ventricular arrhythmias (VA). PVC and VA ablation in patients with aortic valve replacement (AVR) is challenging, especially mapping and ablation in the periaortic region.

Case: We present a case of a 83-year-old man with PVCs from the LV summit. The patient had a history of bioprosthetic sutureless (Perceval) aortic valve replacement and AF ablation. He underwent electrophysiologic testing and catheter ablation. LV access was obtained via retrograde aortic approach. PVCs were mapped below the prosthetic valve also above the valve. Best activation and pace maps at the subvalvular area. The earliest endocardial site is almost isochronal.

Results: 50 watt RF energy immediately terminated the PVCs. There were no significant changes in valve function after ablation, atrioventricular block, or other complications.

Conclusion: Catheter ablation of PVCs from the periaortic region can be achieved using retroaortic approach safely.

Keywords: Ablation, Bioprosthetic Aortic Valve, Premature Ventricular Contraction

Figure 1

The fluoroscopic image was obtained in a right anterior oblique projection

Figure 2

Left: Electroanatomic map of the LVOT. The red dots are sites where ablation lesions were delivered to eliminate the PVCs. Right: Earliest Ventricular activation point located in the LVOT subvalvular area but almost isochronal in the endocardial site

PP-06 GIANT PULMONARY ARTERY ANEURYSM IN A PATIENT WITH PRIMARY PULMONARY HYPERTENSION

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Objectives: Definition of Pulmonary artery aneurysm is main pulmonary artery diameter more than 40 mm. PA dilatation is frequently observed in patients with PH, but the formation of a PA aneurysm is rare in patients with PH. Causes and pathogenesis of the PAA aren't clear, but the most common reasons are congenital and acquired cardiac diseases.5 Hemoptysis, dissection, rupture, and hemothorax are life-threatening complications of PAA.

Case: We present a case of a 58-year-old patient with a pulmonary artery aneurysm. He was initially presented with dyspnea in 2004. He was diagnosed with primary pulmonary hypertension and followed for seven years with a pulmonary artery aneurysm with only medical treatment.

Results And Conclusions: The optimal treatment for PAA's remains unclear since there is limited experience because of the low incidence of the disease. In the current literature, nonspecific symptoms can be seen in the course of pulmonary artery aneurysm, as well as cases resulting in sudden aneurysm rupture. Due to the lack of guidelines for its management, patients should be managed individually. Surgery is indicated when there is a history of hemoptysis or when the pulmonary artery diameter is greater than 60 mm. Contrary to the recommendations, in our case report, the diameter of the pulmonary artery aneurysm is 87 mm, and it has been followed up with only medical treatment for seven years.

Keywords: Echocardiography, Pulmonary Artery Aneurysm, Pulmonary Hypertension

Figure 1

The Transthoracic echocardiographic imaging showing dilated main pulmonary artery (10 cm) and pulmonary branches. There was a massive thrombus in the right pulmonary artery.

Figure 2

Multislice computed tomography of the thorax showed the diameter of the pulmonary truncus is 87mm. The most extensive filling defect was measured 2.5 cm in a 9.5 cm segment of the right pulmonary artery.

PP-07 19-YEAR-OLD PATIENT WITH ANTEROSEPTAL MYOCARDIAL INFARCTION

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Case: 19-year-old male patient presented to the emergency department with chest pain. ECG was characterized by the presence of ST-elevations in V1-V3 leads acutely followed by the development of Q waves in V1-V3 precordial leads. The risk factors that the patient had were smoking and family history. The patient was administered 300 mg of acetylsalicylic acid, 180 mg of ticagrelor, 0,8 cc of clexane medication and was quickly transferred to the coronary angiography laboratory. Patient's cx artery was totally occluded after the om1 level. There was 80% plaque lesion in the initial part of the om1 artery. The distal flow of the cx artery was achieved with balloon dilatation. A 1-1-1 medina bifurcation lesion was observed in the angiography performed afterwards. Double kissing crush was performed to cover the cx and om1 lesions. Timi 3 flow was provided in the coronary vessels. LDL cholesterol level was 391 mg/dL in the blood parameters measured afterwards. Lesions compatible with Xanthelasma were observed under the patient's eyes. 40 mg rosuvastatin was added to the patient's discharge treatment.

Xanthelasmas are yellowish papules and plaques caused by localized accumulation of lipid deposits commonly seen on the eyelids. The prevalence is estimated at 4%, with an incidence of 1.1% in women and 0.3% in men. The age of onset can range from 15 to 73 years, although typical peaks are seen in the fourth and fifth decades. In around half of the cases, it can be associated with an underlying hyperlipidemia, and a presentation prior to the age of 40 should prompt screening to rule out underlying inherited disorders of lipoprotein metabolism.

Xanthelasmas is a benign asymptomatic lesion, not associated with any cutaneous complications; however, treatment is often sought for cosmetic reasons.They can also indicate an underlying plasma lipid disorder in approximately 50% of patients caused by a lipoprotein or apolipoprotein abnormality. Therefore, patients should be screened for underlying causes of hyperlipidemia and may require follow-up for associated morbidities.

If a Xanthelasma-like lesion is observed, hyperlipidemia should be kept in mind. These lesions are predictive of future cardiovascular diseases.

Keywords: myocardial infarction, LDL, Xanthelasma

Patient's Xanthelasma lesions

PP-08 MYOCARDIAL INFARCTION AFTER COVID-19 VACCINATION

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63-year-old man presented to the emergency with complaint of chest pain for last 12 hours. A stent had been implanted in the coronary artery 4 years ago. The patient was using acetyl salicylic acid 100 mg 1x1, clopidogrel 1x1, rosuvastatin 40 mg 1x1. He was non-hypertensive, non-diabetic. He had history of taking first dose of Pfizer Biontech vaccine 2 days back and since then he developed uneasiness, dizziness and excessive sweating. On examination, he was hemodynamically stable. There was no STEMI sign in the ECG. Cardiac troponin-I (cTnI) were >195 ng/mL (0-14). The patient was referred to the coronary angiography laboratory with a prediagnosis of NSTMI. Coronary angiography revealed multiple lesions in the LAD artery. Intense thrombus was detected in the lesions. Infusion of 2 vials of tirofiban was planned for the patient(fig1). Coronary angiography performed after tirofiban infusion showed that the image of the thrombus disappeared(fig 1). 2.75x 20 mm DES was implanted into the distal lesion(fig 2). The old stents were dilated with an NC balloon under IVUS guidance. Distal TIMI 3 flow was provided(fig 2). Clopidogrel treatment was changed to prasugrel. The patient was discharged in good general condition.

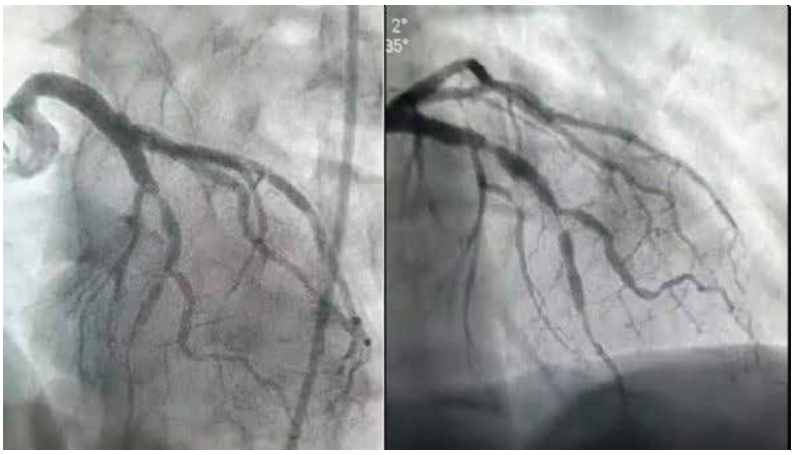
2 days after vaccination, the ACS clinic is suspicious. As at this point there is no experiment done to specifically investigate the incidence of MI among COVID-19 vaccine recipients, some hypotheses can be put forward. Firstly, Greinacher et al. suggested vaccine induced prothrombotic immune thrombocytopenia, an entity similar to heparin induced thrombocytopenia as the reason behind thrombotic phenomenon post-vaccination. Secondly, Boivin et al. stated demand-supply mismatch in a frail heart post-vaccination Thirdly, transfection of platelets by mRNA or viral vector-based vaccine may be remote possibility Fourthly, it can be vasospastic allergic myocardial infarction in response to vaccine, termed as Kounis syndrome.

At this juncture, it would be premature to draw a causal relationship between COVID-19 vaccine and MI. Considering vaccination is being administered en mass and MI is relatively a common emergency, it can merely be a coincidence or even an idiosyncratic reaction.

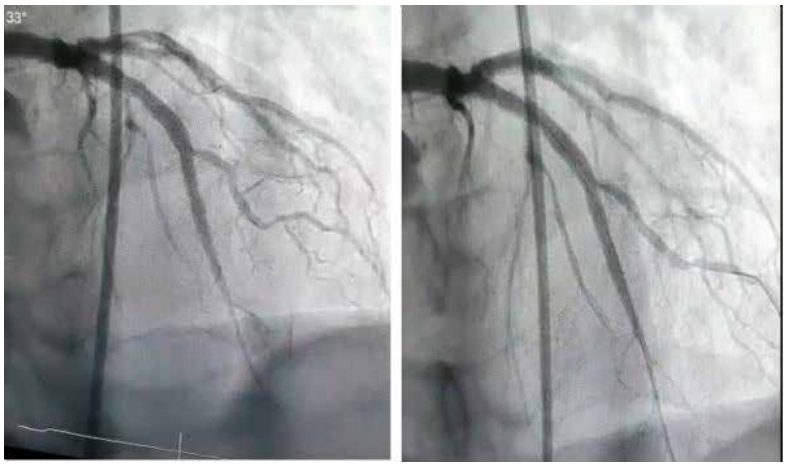
We think that further studies are needed in terms of the necessity of pre-vaccination prophylaxis in high-risk patients for ACS

Keywords: COVID-19, vaccination, Myocardial infarction

Coronary angiography after basal and tirofiban infusion



coronary revascularization



PP-09 A TYPICAL CASE OF TAKOTSUBO CARDIOMYOPATHY

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Konya Numune Hastanesi

Case: A 48-year-old female patient experienced intense stress due to the death of her father. While attending his funeral, severe chest pain began. In the patient's electrocardiography (ECG), nonspecific ST segment depressions and loss of R wave amplitude were detected in the anterior leads. The troponin I value was 4297 ng/L (>13 ng/L significant value). Transthoracic echocardiography (TTE) showed aneurysm and ballooning at the apex at a rate of 30% in the ejection fraction (image 1) The vessels of the patient who underwent coronary angiography (CAG) were found to be normal (image 2) TTE performed after 1 month revealed 60% EF and there was no motion defect in the apex. Cardiac enzymes were also within normal limits.

Conclusion: Stress cardiomyopathy (known as Takotsubo) is a syndrome characterized by transient regional left ventricular dysfunction in the absence of significant coronary artery disease. Predicted pathogenic mechanisms include catecholamine excess, microvascular dysfunction, and multi-vessel coronary artery spasm. The diagnosis of stress cardiomyopathy should be suspected in adults with suspected acute coronary syndrome (ACS), especially when clinical signs and ECG abnormalities are out of proportion to the degree of elevation in cardiac biomarkers. A physical or emotional trigger is often present but not always present. Diagnostic criteria include the presence of transient regional wall motion abnormalities (not typically in a single coronary distribution), absence of angiographic evidence of obstructive coronary disease or acute plaque rupture, presence of new ECG abnormalities or moderate troponin elevation, and exclusion of pheochromocytoma or myocarditis. In patients with stress cardiomyopathy, wall motion abnormalities are typically detected by TTE or left ventriculography. Patterns of left ventricular wall motion abnormality in patients with stress cardiomyopathy include atypical variants, including the apical type (occurs in most cases) and mid-ventricular, basal, focal (limited to an isolated segment), and global types. The differential diagnosis of stress cardiomyopathy includes ACS, cocaine-induced ACS, multi-vessel coronary artery spasm, myocarditis, and pheochromocytoma.

Keywords: takotsubo, cardiomyopathy, stress

image 1

First TTE with apex ballooning and dyskinesia

image 2

normal coronary angiography

PP-10 PULMONARY END ARTERECTOMY, CORONARY ARTERY BYPASS GRAFTING AND MITRAL VALVE REPAIR IN THE SAME SESSION

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Case: A 68-year-old female patient was followed up in an external center with a definite history of pulmonary thromboembolism. She was admitted to the Cardiology Clinic of our hospital with dyspnea. The patient has exertional dyspnea at the time of admission, functional capacity class 2 NYHA. The patient has no documented coronary artery disease, she is receiving anticoagulant treatment Rivaroxaban for PTE. In the echocardiography of the patient, significant global hypokinesia in the septum and inferior wall of left ventricule, TAPSE: 15, moderate-severe mitral regurgitation and dilated left and right atriums were observed. Systolic Pulmonary Artery Pressure was measured 65-70 mmHg in echocardiography. In the coronary angiography performed, 70-80% stenosis of the Left anterior descending artery (LAD) was observed. In 3D perfusion evaluation for lungs with dual energy system;thrombus in the right main branch of the pulmonary artery and segmental branches in the lower lobes,perfusion defect appearances secondary to thrombus were observed at the anterobasal and lateral basal segment levels in the right lung lower lobe and at the posterobasal segment level in the left lower lobe (Figure 1). The patient with chronic thromboembolic pulmonary hypertension was evaluated in the council attended by a chest disease specialist, cardiologist, and cardiovascular-throrasic surgeon.

Successful pulmonary endarterectomy, LAD-LIMA bypass and mitral ring anuloplasty were performed by cardiovascular thoracic surgery (Figure 2).The follow-up of the patient continues in our clinic.

Keywords: pulmonary thromboembolism, chronic thromboembolic pulmonary hypertension, pulmonary endarterectomy

3D perfusion evaluation for lungs with dual energy system

Specimen of thrombus

PP-11 AMBULATORY BLOOD PRESSURE MONITORING IN PATIENTS WITH METABOLIC SYNDROME

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Aim: The aim of this study is to investigate the clinical features of arterial hypertension (AH) in patients with metabolic syndrome (MS) using ambulatory blood pressure monitoring (ABPM) method.

Methods: 90 MS (66 males, mean age = 48±9 years, BMI = 33±8kg/m2, waist circumference (WC) male 114±15cm, females 109±7cm) and 34 underweight subjects with AH.All MS patients were insulin resistant, HOMA-IR = 5.8±1.5, AH was detected in 76% (n=69) of MS patients. BP variability was evaluated as standard deviation day and night ABP.

Results: The characteristics of AH according to ABPM in MS patients are daytime systodiastolic hypertension, nocturnal systolic hypertension, high pulse pressure (PP). Compared with AH patients with MS, the control group had higher daytime systolic ABP (p = 0.017); higher PP (p = 0.0032); higher systolic PTI during the day (p = 0.002) and at night (p = 0.042); higher BP variability of systolic, diastolic day and night ABP. These results demonstrated possible links between insulin resistance and AH.

CONCLUSİONS: Our study showed the special features of ABPM in MS patients including high systolic ABP, high daytime PP, high systolic PTI, BP variability.

Keywords: metabolic syndrome, blood pressure, ambulatory monitoring

demographic features

male:n:(population): 66	WC:(waist circumference
female:n:(population): 24	WC:male:114+-15 cm
mean age:48+-9 years	WC:female:109+-7
BMI:33+-8 kg/m2	HOMA-IR(total):5,8+-1,5

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