

WELCOME ICCU 2025

CONGRESS NEWS 2025

THE OFFICIAL ICCU COURSE NEWSPAPER

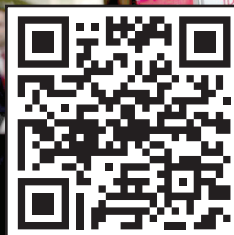
EDITION ONE, 23 SEP. 2025

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ICCU 2025 TO

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PICK OF YOUR FAVOURITE SEASONS

The ICCU 2025 Congress will offer a varied program, including 50+ sessions, workshops and presentations, as well as opportunities to network and engage with participants.



Explore the program, Choose Your Favourite Sessions

President of Congress



Massoud Ghasemi, MD

Executive Secretary of Congress



Mojdeh Mazidi

Scientific Secretary of Congress



Masoud Eslami, MD





WELCOME
ICCU 2025



25th International Congress on
Cardiovascular Updates

23 - 26 September 2025
Milad Tower Exhibition Center / Tehran - Iran



www.iranathero.ir



Dr. Massoud Ghasemi
President of the 25th International Congress
On Cardiovascular Updates



Mojdeh Mazidi
Executive Secretary of the 25th International
Congress On Cardiovascular Updates



Dr. Masoud Eslami
Scientific Secretary of the 25th International
Congress On Cardiovascular Updates

■ **From the Beat of Science
to the Pulse of Life: A Step
Toward a Healthy and Dynamic
Society**

On the eve of the 25th International Congress On Cardiovascular Updates, Dr. Massoud Ghasemi, President of the Congress, stated:

With the grace of Almighty God and through the efforts of the Iranian Society of Atherosclerosis we are honored to host the 25th edition of this international congress. Building on a quarter century of experience and steadfast commitment, we remain dedicated to advancing cardiovascular science and improving the health of patients, particularly in the field of cardiology.

The 25th International Congress On Cardiovascular Updates—one of the nation’s most prominent scientific gatherings—will be held from September 23 to 26, 2025, at Milad Tower Exhibition Center in Tehran. The event will bring together esteemed professors, pioneers in cardiology and its subspecialties, physicians, nurses, healthcare professionals, researchers, scholars, pharmaceutical and medical device companies, and related industries at both national and international levels.

In today’s complex world, the synergy between scientific progress and public health provides a solid foundation for growth, development, and quality of life. At the core of this relationship, cardiovascular diseases remain the leading cause of mortality worldwide, driven largely by economic pressures and unhealthy lifestyles.

Addressing this global challenge requires broad scientific research, timely diagnosis, and early prevention measures. It also calls for multidimensional collaboration across government, healthcare, economy, and society; raising public awareness on healthy living, nutrition, exercise, and stress management; continuous professional education; and the application of advanced technologies in diagnosis and treatment. Effective cooperation among governments and health organizations plays a decisive role in reduc...

This year’s congress promises to be the most dynamic and impactful cardiovascular event in the country, offering the latest research findings and innovative diagnostic and therapeutic solutions. The scientific program includes in-person and online sessions with distinguished national and international speakers, interactive panels, symposia, and practical workshops for physicians and nurses. Active engagement through Q&A sessions and regional panels across provinces provides unique opportunities for knowle...

→ Continued on page 5

■ **The Iranian Society of
Atherosclerosis proudly
announces the 25th International
Congress On Cardiovascular
Updates**

On the eve of the congress, Executive Secretary Mojdeh Mazidi stated:

With the grace of Almighty God and the tireless efforts of the Iranian Atherosclerosis Association, the 25th International Congress On Cardiovascular Updates will be held from September 23 to 26, 2025, at Milad Tower Exhibition Center in Tehran. This milestone marks a historic achievement as we host the largest cardiovascular event in the country for the 25th consecutive year. It reflects years of collaboration, innovation, and unwavering dedication in cardiology and allied fields.

The upcoming congress will provide a valuable opportunity to reflect on our distinguished history, celebrate past scientific and professional accomplishments, and chart a promising future for advancing knowledge, education, and professional development in the cardiology community of Iran.

This year’s theme—“One Heart, One Planet, in Every Heartbeat”—underscores our shared responsibility to safeguard both human and planetary health. Global solidarity is the key to sustaining life’s rhythm and creating a brighter future.

This international event will welcome over 5,000 participants, including specialists, subspecialists, fellows, cardiac surgeons, electrophysiologists, residents, and nurses, alongside keynote speakers and board members from countries such as Australia, Spain, France, Germany, Turkey, Oman, and North America. The congress will serve as a vibrant platform for exchanging ideas, strengthening collaborations, and fostering innovation in cardiology and related fields. We are committed to adopting modern structu...

The congress will provide the highest CME (Continuing Medical Education) credits in Iran—20 credits for physicians and 15 credits for nurses. Registration will take place through participants’ profiles in the official CME system, in accordance with Ministry of Health regulations. Attendance will be tracked via QR code scanners at the entrances to scientific halls.

One key initiative of the congress is free registration for residents and exemplary nurses nationwide. This recognizes their essential role and aims to enhance their professional knowledge and skills.

→ Continued on page 5

■ **New Strategies and
Emerging Challenges in
Cardiovascular Health**

On the eve of the congress, Dr. Masoud Eslami, Scientific Secretary of the Congress stated:

With the grace of Almighty God and through the efforts of the Iranian Atherosclerosis Association, we are honored to host the 25th edition of this prestigious scientific event—the International Congress on Recent Advances in Cardiovascular Diseases. The congress will be held from September 23 to 26, 2025, at Milad Tower Exhibition Center in Tehran, with the participation of leading national and international researchers and specialists.

This congress provides a dynamic and inclusive platform for knowledge exchange and multidisciplinary collaboration in cardiology, interventional cardiology, electrophysiology, echocardiography, endovascular and peripheral interventions, heart failure, general cardiology, internal medicine, and related fields.

This landmark event will bring together cardiologists, general practitioners, nurses, researchers, and healthcare professionals from around the world to share the latest scientific discoveries, clinical experiences, advanced cardiovascular imaging technologies, emerging therapies, and the most recent international guidelines. Active involvement of pharmaceutical and medical device companies will further strengthen efforts to improve cardiovascular care and community health.

According to the World Heart Federation, environmental factors such as air pollution play a major role in increasing the risk of cardiovascular disease. Among the most common conditions is atrial fibrillation, a heart rhythm disorder that increases the risk of blood clots, stroke, heart failure, and other complications. Additional risk factors include economic pressures and lifestyle choices such as smoking, poor diet, stress, sleep disorders, inactivity, and obesity.

The aim of this year’s congress is to bridge the gap between global statistics, clinical knowledge, and research findings, creating valuable opportunities to shape new strategies in cardiovascular health. With the participation of distinguished professors and experts, the congress will advance evidence-based knowledge and foster international collaboration in early detection and reduction of risk factors. Key sessions will include research presentations, specialized discussions, and symposia on current cha...

→ Continued on page 6

The Role of Electrophysiologic Study in Device Selection for Leadless Atrial Pacing



Joshua R. Hirsch Section of Cardiology, Baylor College of Medicine, Houston, Texas	Jordan M. Gales Section of Cardiology, Baylor College of Medicine, Houston, Texas Department of Cardiology, The Texas Heart Institute at Baylor St Luke's Medical Center, Houston, Texas	Irakli Giorgberidze Section of Cardiology, Baylor College of Medicine, Houston, Texas Department of Cardiology, Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas	Hamid Afshar Section of Cardiology, Baylor College of Medicine, Houston, Texas Department of Cardiology, Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas
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Abstract:

The AVEIR DR (Abbott Medical) was the first dual-chamber leadless pacing system approved by the US Food and Drug Administration. Many patients with sinus node dysfunction have physiologically normal atrioventricular conduction, so an atrial-only pacing system may be appropriate for them. Three patients with symptomatic sinus node dysfunction underwent device implantation with electrophysiologic study, including incremental atrial pacing until loss of 1:1 atrioventricular conduction (atrioventricular Wenckebach cycle length) and His-ventricular interval measurement. If the atrioventricular Wenckebach cycle length was no more than 400 milliseconds and the His-ventricular interval measurement was no more than 55 milliseconds, single-chamber atrial implantation was deemed appropriate. Each patient displayed a different response to atrioventricular conduction testing, demonstrating how electrophysiologic study before device implantation may identify patients for whom atrial-only pacing is not appropriate.

Keywords:

Electrophysiologic techniques, cardiac; cardiac pacing, artificial; bradycardia; sick sinus syndrome

Key Points:

- Electrophysiologic study, including rapid atrial pacing and measurement of the HV interval, may be useful to assess a patient's candidacy for an atrial-only pacing strategy.
- An AAI leadless pacing strategy may appropriately treat SND while minimizing procedural risk, limiting battery expenditure, and deferring ventricular leadless or transvenous device implantation until indicated by development of atrioventricular block or progression of conduction system disease.

Abbreviations:

EP: electrophysiology
HV: His-ventricular
LP: leadless pacemaker
SND: sinus node dysfunction

Case Report:

Sinus node dysfunction (SND) is the most common indication for pacemaker implantation, making up more than half of device implantations in the United States.^{1,2} Single-chamber atrial-inhibited pacing (commonly referred to as "AAI": atrial pacing with atrial sensing that inhibits stimulation when an atrial signal is detected) has infrequently been used in the United States largely because of the anticipated need for dual-chamber pacing,³ although dual-chamber pacing occurs in a minority of patients (1.7%-4.5% per year).^{4,5} The AVEIR DR (Abbott Medical) became the first dual-chamber leadless pacing (LP) system to be approved by the US Food and Drug Administration after demonstrating safety and efficacy in the AVEIR DR i2i study.⁶ The AVEIR DR system provides synchronous atrioventricular dual-chamber, adaptive-rate (DDDR) pacing via atrial (termed "AR") and ventricular (termed "VR") LP that communicates wirelessly.^{6,7} The AVEIR AR device is implanted in the right atrium, usually at the base of the right atrial appendage.⁸ Atrial-only LP device implantation has previously been described under the Food and Drug Administration's compassionate use for investigational medical products,⁹ and use of the AVEIR AR device alone is currently covered by the Centers for Medicare & Medicaid Services under coverage with evidence development (ClinicalTrials.gov identifier NCT05932602). Appropriate patient selection for atrial-only LP device implantation is an area of approaching need. This report describes 3 cases in which an electrophysiology (EP) study immediately before LP device implantation yielded differing results, exemplifying how atrioventricular nodal

and conduction system testing can guide single-chamber vs dual-chamber LP device implantation.

Case 1

A 76-year-old man with hypothyroidism, hyperlipidemia, and tremors was referred to the clinic for dizziness and bradycardia. The patient's implantable loop recorder revealed sinus bradycardia (slowest heart rate, 40/min; mean heart rate, 50/min), with 2 sinus pauses longer than 10 seconds and atrial fibrillation with a burden less than 1%. The patient described lightheadedness with activity, syncopal episodes, and progressive fatigue. Physical examination was performed without evidence of substantial abnormality. Electrocardiography displayed sinus bradycardia, with a PR interval of 184 milliseconds and a normal QRS complex (84 milliseconds). Transthoracic echocardiography confirmed a normal left ventricular ejection fraction (55%-60%) without substantial chamber or valvular abnormality. Pacemaker implantation was recommended, and after discussion of the procedure, risks, and benefits of transvenous and LP systems, the patient elected LP device implantation.

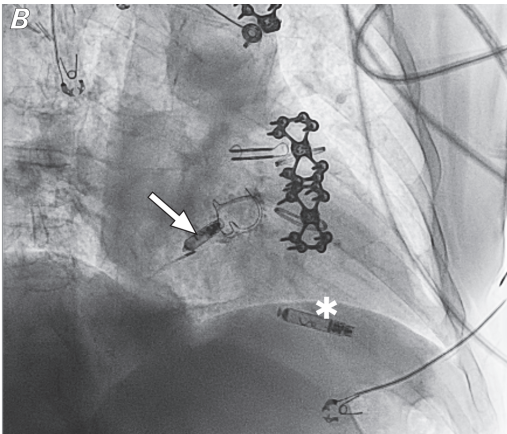
He consented to an EP study followed by AVEIR DR LP system implantation, with an atrial-only implant if deemed appropriate. After induction of general

anesthesia and femoral venous access, a quadripolar catheter was introduced to the right atrium. The His-ventricular (HV) interval was measured, and incremental atrial pacing was performed until loss of 1:1 atrioventricular conduction (atrioventricular Wenckebach cycle length). If the HV interval was no more than 55 milliseconds and the atrioventricular Wenckebach cycle length was no more than 400 milliseconds, single-chamber atrial LP device implant would be deemed appropriate. This patient's atrioventricular Wenckebach cycle length was 400 milliseconds, and his HV interval was 48 milliseconds. Implantation of the AVEIR AR device was therefore performed using a standard technique to ensure appropriate position, fixation, sensing, and capture at the junction of the right atrial appendage base and lateral right atrial wall. Device programming and parameters for all 3 cases are listed in Table 1. Clinical follow-up through 7.5 months for the patient in case 1 demonstrated improvement in clinical symptoms and no recurrent syncope or procedural or device-related complication. Loop recorder interrogation has not shown any atrioventricular block and has shown 1% burden of atrial fibrillation.

TABLE 1. Pacemaker Programming and Parameters After Implantation

Case 2:

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Explore Full Text

CAPTURED MOMENT





Florence Hall NURSING PROGRAMS

24
Sep.
2025

Wednesday
08:30-18:30

25
Sep.
2025

Thursday
08:00-17:30



→ Continued from page 3 (Dr. Ghasemi)
Complementing the scientific agenda, a large exhibition space will feature leading sponsors, pharmaceutical firms, and medical device companies. This interactive forum will showcase state-of-the-art technologies, treatments, and products shaping the future of clinical practice and patient care. The 25th Congress will thus be where science meets innovation, and where collaboration between industry and healthcare takes root.
In closing, while expressing my delight in hosting the 25th edition of this international congress, I reaffirm our commitment to honoring past achievements, valuing present efforts, and envisioning a brighter future in reducing the burden of cardiovascular disease. This congress also underscores our dedication to training the next generation of young specialists who will shape the future of cardiovascular health. I extend my deepest gratitude to our distinguished professors, speakers, physicians, nurses.

→ Continued from page 3 (Ms Mazidi)
To ensure comprehensive coverage, the IRSA Congress TV Channel will broadcast live throughout the congress, featuring interviews with renowned cardiologists, healthcare professionals, and industry leaders. Each day will conclude with discussions with congress presidents, offering insights into daily proceedings. Among this year's technological highlights are 3D cardiovascular visualizations using virtual reality headsets and the IRSA intelligent robot, designed to assist participants.
As in previous years, interactive paper panels will be held, with accepted papers submitted as recorded presentations and displayed online. Awards will be presented to outstanding contributions in medicine and nursing.
Participants can view detailed scientific information through the Association's website, including a "Program at a Glance" file for easy navigation of sessions. Those who have attended the congress for

five consecutive years will be recognized as Gold Members and honored accordingly. Alongside the congress, a specialized exhibition will showcase leading companies in pharmaceuticals, medical devices, imaging technologies, and related industries. This dynamic forum will highlight innovations, new products, and opportunities for knowledge exchange, supporting meaningful industry-academic partnerships and commercialization of new ideas in health.
To ensure convenience, free shuttle and bus services will be provided for nursing students, transporting them from nursing and midwifery schools to the congress venue.
The congress is powered by a dedicated team of over 200 professionals, including IT specialists, senior experts, physicians, nurses, and academic leaders, working in unison to deliver an organized and successful event.

She added: "The presence of physicians, researchers, and industry leaders at this congress reflects our collective commitment. We eagerly look forward to exchanging experiences and advancing cardiology together. May this gathering spark transformative discussions, raise awareness, and lead to tangible improvements in cardiovascular health both in Iran and globally."
In conclusion, the Executive Secretary expressed her gratitude to the Ministry of Health, the Food and Drug Administration, the Department of Medical Equipment, Dr. Massoud Ghasemi (President), Dr. Masoud Eslami (Scientific Secretary), members of the Board of Directors, scientific committees, the Iranian Society of Atherosclerosis, and the dedicated executive team for their invaluable support. She voiced her hope that scientific collaboration and active participation will ensure the continued success of 25th International Congress On Cardiovascular Updates.

In Cardiogenic Shock, Obesity Have the Lowest, Whereas Cachexia Has the Highest Mortality

Mohammad Reza Movahed

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Mehrtash Hashemzadeh

Doctoral-degree, Department Of Medicine, University Of Arizona Sarver Heart Center, Tucson, Tucson, United States

Introduction:

The obesity paradox has been observed in patients with cardiovascular disease. The goal of this study was to evaluate whether obesity has a protective effect in patients presenting with cardiogenic shock

Material & Methods:

Method: Using a large Nationwide Inpatient (NIS) sample database, we evaluated mortality in patients with cardiogenic shock based on weight categories in adults.

Results:

A total of 843,020 patients over age 18 had a diagnosis of cardiogenic shock in the database. We found that overweight and obesity had the lowest mortality using univariate or multivariate analysis (overweight mortality of 20.66% vs. obesity mortality of 26.6% vs. 34.8% of normal weights). In contrast, cachexia was associated with the highest mortality in univariate analysis (cachexia 40.4%). Using multivariate analysis adjusting for age, baseline characteristics, and comorbidities, these relations remained unchanged (cachexia MVOR: 1.13; CI: 1.21–1.13; $p < 0.001$; overweight MVOR: 0.52, CI: 0.43–0.65; $p < 0.001$; obesity MVOR: 0.76, CI: 0.73–0.79; $p < 0.001$).

After multivariate adjustment, morbid obesity had similar mortality to patients with normal weight (morbid obesity MVOR: 0.99 CI 0.95–01.03; $p = 0.6$)

Conclusion:

We observe a partial obesity paradox in patients with cardiogenic shock, showing that being overweight, followed by obesity, has the lowest mortality, whereas cachexia has the highest mortality despite multivariate adjustment.

Keywords:

cardiogenic shock; obesity; cachexia; CHF





25
Sep.
2025

Thursday
08:00-17:30

26
Sep.
2025

Friday
09:00-13:00

→ Continued from page 3 (Dr. Eslami)

Participants will benefit from diverse scientific programs, including interactive panels, keynote lectures, specialized symposia, and hands-on workshops for physicians and nurses. Regional scientific panels will also be held to address local perspectives in the diagnosis and treatment of cardiovascular diseases. In conclusion, reaffirming our commitment to excellence, scientific advancement, and the improvement of cardiovascular health for all, we emphasize the importance of equitable access to care, education, and training for aspiring specialists and young researchers. I extend my heartfelt gratitude to our esteemed professors, speakers, physicians, nurses, the Iranian Atherosclerosis Association, and the organizing teams for their invaluable efforts. Their contributions are key to the success of 25th International Congress On Cardiovascular Updates

24 SEPTEMBER. 2025

WEDNESDAY

DON'T MISS

Nazeri Hall (Interventional Hall)

New Era in tricuspid Regurgitation Management

Session 1 08:00-09:00

- Chairperson: **Ghasemi M**
- Speaker: **Philipp Lurz** (Germany)



ICCU
2025



Maryam Mehrpooya
Department of Cardiology,
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Tehran, Iran

Evaluation of the safety and efficacy of direct oral anticoagulants compared with VITAMIN-K ANTAGONISTS IN THE TREATMENT OF LEFT VENTRICULAR THROMBOSIS.

A systematic review and meta-analysis

Mohammad Rafi Barakzehi
Department of Cardiology,
Tehran Heart center, Tehran University of
Medical Sciences, Tehran, Iran

Mahdi Nikoobakhsh
Department of internal medicine, Yazd
Islamic Azad University, Yazd, Iran

Abstract:

Background:
Since the introduction of direct oral anticoagulants (DOACs) and their comparison with vitamin K antagonists (VKAs), conflicting results have been reported regarding the optimal treatment for left ventricular thrombosis (LVT).

Objectives:

In this meta-analysis, we intend to comprehensively evaluate the safety and efficacy of these treatments.

Methods:

All clinical trials and cohorts that compared the efficacy or safety of VKAs with DOACs in the treatment of LVTs were systematically searched until April 15, 2023. Results: The results of 32 studies with a pooled sample size of 4213 patients were extracted for meta-analysis. DOACs, especially rivaroxaban and apixaban, cause faster resolution, lower mortality, and fewer complications (SSE and bleeding events) than VKAs in the management of LVTs.

Conclusion:

Compared with VKAs, DOACs result in significantly faster (only rivaroxaban) and safer resolution of left ventricular thrombosis.

Keywords:

Direct oral anticoagulants, Left ventricular thrombosis, Vitamin K antagonists

Introduction:

Left ventricular dysfunction due

to myocardial infarction or other cardiomyopathies can lead to left ventricular thrombosis (LVT). LVT increases susceptibility to thromboembolic events, including stroke and systemic embolisms (SE) that may eventually lead to morbidity and mortality. For a long time, LVTs were managed only by vitamin K antagonists (VKAs), especially warfarin. After the development of direct oral anticoagulants (DOACs), various studies investigated the efficacy and safety of these agents compared with VKAs in different indications. The results indicated that DOACs could be as efficient and safe as VKAs in the treatment of a range of thromboembolic conditions such as venous thromboembolism, cerebral venous thrombosis and atrial fibrillation. In addition, according to previous studies, VKAs have disadvantages such as the need for frequent monitoring of international normalized ratio (INR), dose adjustment, and being cautious about multiple drug-drug or food-drug interactions. DOACs have almost none of the mentioned limitations, and due to the predictable pharmacokinetic and pharmacodynamics properties, a fixed-dose regimen of DOACs can be prescribed for patients without the need for monitoring. Though, in some conditions different results have been reported. For example, in patients with mechanical heart valves, DOACs have been associated with an increased risk of thromboembolism and bleeding compared with VKAs. Therefore, they are not recommended in these conditions. In the past decade, efforts have been made to determine the efficacy and safety of DOACs in the treatment of LVTs and compare it with VKAs as the standard treatment. Although the initial studies were mainly case reports, the number of cohorts and clinical trials

have increased in recent years. Several systematic reviews and meta-analyses have also been conducted, but none of them have reviewed all the available studies, and on the other hand, newer studies with deeper analysis have also been published. Therefore, the present review and meta-analysis try to provide a more comprehensive evaluation of the efficacy and safety of DOACs vs. VKAs in patients with LVT.

Methods:

This study was conducted based on the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) standard guideline.

Search strategy

In this systematic review and meta-analysis, all clinical trials and cohorts that have compared the efficacy or safety of VKAs and any type of DOACs in the treatment of LVT have been reviewed. The search was performed in PubMed, Embase, Cochrane Library, and Google Scholar databases. All articles that had been published until April 15, 2023, were reviewed without time or language restrictions.

The keywords have been organized with the help of relevant articles and based on the PICO model.

These keywords are as follows:
"Left ventricular thrombus*",
"ventric* thromb*", ("ventric*") AND ("thromb*"), "Warfarin", "vitamin K antagonist*", "VKA", "Factor Xa Inhibitor*", "Direct-Acting", "apixaban", "rivaroxaban", "dabigatran", "edoxaban", "betrixaban", "Oral Anticoagulant*", "direct anticoagulant*", "DOAC*", "NOAC*".

A combination of AND/OR operators was used, and to find the maximum number of target studies, a manual search was performed among the references of the

found articles, especially in systematic reviews and meta-analyses.

Study selection and quality evaluation
First, the citations of identified studies were entered into EndNote version 20 and duplicates were removed. Then, studies that met the inclusion criteria were selected by reviewing the titles and abstracts.

These criteria included 1) clinical trial or cohort design, 2) patients with LVT, 3) a comparison between VKAs and any type of DOACs, and 4) reporting the efficacy or safety of each of the interventions. Case reports, non-comparative studies, systematic reviews, and meta-analyses were excluded from the study. Of course, the references of these studies were reviewed to find the maximum number of cohorts and trials. Studies for which the full text was not available were included if they met the inclusion criteria.

Quality evaluation for each study was independently assessed by Barakzehi and Nikoobakhsh. Newcastle–Ottawa Scale (NOS)19 was used to measure the quality of cohorts, and The JADAD 5-point scale20 was used to evaluate the quality of trials. A high-quality study was defined as a score of 3 or more on the JADAD scale and a score of 5 or more on the NOS scale. None of the studies were excluded from the review, but sensitivity analysis was performed considering the quality of the studies for each outcome.

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Explore Full Text

Which feature of the metabolic syndrome is better predictor for coronary artery disease morbidity and mortality; A prospective 10-year analysis

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Hedieh Alimi

Associated-professor, Cardiology, Mashhad University Of Medical Science, Mashhad, Iran

Susan Darroudi

Other, Cardiology, Mashhad University Of Medical Science, Mashhad, Iran

Introduction:

While numerous studies explored the connection between metabolic syndrome (MetS) components and coronary artery morbidity and mortality, none have specifically examined which component is most crucial. Therefore, this study intended to fill this gap in the research.

Purpose:

We seek to identify which aspect of metabolic syndrome most accurately predicts the morbidity and mortality associated with coronary artery disease (CAD).

Materials and Methods:

This prospective cohort study began in 2010 and was followed for 10 years. A total of 9704 subjects recruited in phase I (2007–2010) were followed, and after 10 years, 7560 participants continued with the study. Ultimately, 3748 subjects with metabolic syndrome (MetS) at baseline were selected. Metabolic syndrome is defined by international Diabetes Federation criteria. In this study, 505 cases of MetS subjects developed CAD, with 81 cases resulting in death. CAD was confirmed by an expert cardiologist with using stress echocardiography, radioisotope scan, coronary angiography, coronary CT angiography, or exercise tolerance test for CAD. We categorized subjects with metabolic syndrome into ten groups based on whether they had 3, 4 and five components. The Cox regression

model was used to assess the association between metabolic syndrome components and CAD, as well as death from CAD.

Results:

The results of this study showed that subjects with 3 components including waist circumference (WC), BP (Blood pressure), and FBG (Fasting blood glucose) (RR: 2.316) like subjects with 4 components including WC, FBG, BP, and TG (RR: 2.086), and 5 components including WC, FBG, BP, TG and high density lipoprotein (HDL) (RR: 2.194) have a risk of CAD. This finding suggested having high waist circumference, high blood pressure, and high fasting blood glucose are more important than lipid profile in developing CAD. The results revealed that having all components increased the risk of CAD mortality by three times (RR: 3.167). table 1, Figure 1.

Conclusion:

Our result demonstrated that the WC, fasting blood glucose (FBG) and high blood pressure (BP), in addition to lipid disorders increase the risk of CAD and CAD mortality. It appears that controlling these factors can help prevent development of CAD over time.

Conclusion:

Our result demonstrated that the WC, fasting blood glucose (FBG) and high blood pressure (BP), in addition to lipid disorders increase the risk of CAD and CAD mortality. It appears that controlling these factors can help prevent development of CAD over time.

Keywords:

Metabolic syndrome

24 SEPTEMBER, 2025

WEDNESDAY

DON'T MISS

Nazeri Hall (Interventional Hall)

Bifurcation advancement, Left main intervention

Session 5 17:00-18:30

- Moderator: Mehrpooa M
- Panel Members: Afshani MR, Ghaffari S, Kojuri J, Nematipour E
- Speakers: Afshani MR, Mohammadi A, Movahed MR (USA) (Online), Zibaei Nejad MJ, Mehrpooa M

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Milad Tower Exhibition Center / Tehran - Iran

بیست و پنجمین کنگره بین المللی
تازه های قلب و عروق
۱۴۰۴ مهر ۱-۴
مرکز نمایشگاهی برج میلاد / تهران - ایران

CARDIOLOGY MEETS AI

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SPEAKERS

Arya Aminoroaya
MD, MPH
Yale New Haven Hospital,
Yale School of Medicine,
New Haven, CT, USA

Arash Aghajani Nargesi
MD, MPH
Cardiovascular Medicine & Clinical Informatics Fellow, Mass General Brigham (MGH),
Harvard Medical School,
Boston, MA, USA

Reza Shahnazar
MD, Cardiologist,
Software engineer, Technology Department, Digikala,
Tehran, Iran

DISCUSSION & INSIGHT

Leveraging deep learning for detecting and predicting atrial fibrillation and flutter, and predicting thromboembolic events from images of 12-lead electrocardiograms in sinus rhythm

Artificial intelligence-enabled detection and prediction of structural heart disease from 1-lead ECGs obtained on portable devices

A foundation deep learning model for multimodal evaluation of cardiovascular disease from ECG and Echocardiography

The agentic heart team: A Novel AI framework for guideline-driven synthesis in coronary angiography

MODERATOR AND PANELISTS

Ali Bozorgi
MD, Associate Professor of Cardiac Electrophysiology,
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Tehran, Iran

Arash Arya
MD, Professor of Cardiac Electrophysiology,
Martin Luther University of Halle-Wittenberg,
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Germany

Kamran Bagheri
PhD of Innovation Management,
CEO and Co-Founder of SURLINO,
Tehran, Iran

Ehsan Sarraee
MD, Assistant Professor of Radiation Oncology, Tehran University of Medical Sciences,
Tehran, Iran

Soroush Nematollahi
MD, Postdoctoral Research Fellow,
Tehran Heart Center,
Tehran, Iran

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Thursday, 25 September 2025 02:00 - 3:30PM
Milad Tower Exhibition Center, Masoumi Hall

MORE THAN 5000 PARTICIPANTS



WEDNESDAY
MIRKHANI HALL

EXPERIENCE HAPPY MOMENTS WITH US
AT THE CONGRESS OPENING CEREMONY

OPENING
CEREMONY

14:00-15:00

LIVE

WEDNESDAY 24 SEPTEMBER, 2025 Mirkhani Hall	WELCOME & OPENING CEREMONY: Ghasemi M (President of Congress), Eslami M (Scientific Secretary of Congress)
	EXECUTIVE REPORT OF THE CONGRESS: Mazidi M (Executive Secretary of Congress)
	CARDIOLOGY IN IRAN: PAST, PRESENT, FUTURE: Nazeri I
	GRADUATES AWARD «Top Cardiology Board Graduates Award, 2025 (by Noohi F)»



IRSA CONGRESS TV CHANNEL

Milad Tower Exhibition Center
Tehran - Iran

ICCU 2025

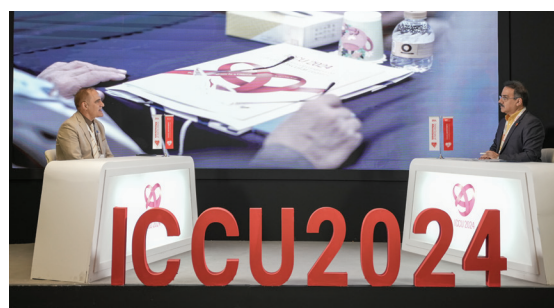
**23
26**
September
2025

IRSA
انجمن آترواسکلروز ایران
Iranian Society of
Atherosclerosis

● **Wednesday** 24 September 2025
● **Thursday** 25 September 2025
● **Friday** 26 September 2025

International Congress on Cardiovascular Updates
ICCU 2025

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Strain Heterogeneity Mapping by Speckle-Tracking Echocardiography

NOVEL INDEX FOR PREDICTING VENTRICULAR TACHYARRHYTHMIA RISK BEYOND LVEF

Introduction:

Ventricular tachycardia (VT) and ventricular fibrillation (VF) remain leading causes of sudden cardiac death in patients with structural heart disease. While global longitudinal strain (GLS) provides prognostic insight, conventional metrics often fail to capture the spatial mechanical heterogeneity that may underlie arrhythmogenic substrates. Speckle-tracking echocardiography with polar mapping enables precise quantification of segmental strain variations, potentially identifying high-risk “gray zones” where adjacent segments differ markedly in deformation. We hypothesized that integrating gray zone burden, apical involvement, and a novel Strain Heterogeneity Index (SHI) into a multivariate model could improve prediction of VT/VF events, guiding targeted implantable cardioverter-defibrillator (ICD) therapy beyond traditional LVEF- based selection.

Material & Methods:

We prospectively analyzed 82 patients with structural heart disease who underwent standard transthoracic echocardiography with speckle-tracking analysis. Longitudinal strain values for 17 LV segments were extracted from polar maps. Gray zones were defined as adjacent segments with an absolute strain difference >5%. The Strain Heterogeneity Index (SHI) was calculated as the standard deviation of all adjacent-segment differences, expressed as a percentage. Global longitudinal peak systolic strain (GLPS) and apical involvement (≥1 apical segment in a gray zone) were recorded. Patients were classified into VT/VF (ICD shock-confirmed) and non-VT/VF groups. Predictive performance of SHI, gray zone count, GLPS, and apical involvement was assessed using ROC analysis, and a multivariate logistic regression model was constructed. Calibration (Brier score) and clinical utility (decision curve analysis) were evaluated. Statistical significance was set at p value < 0.05.

Results:

In 82 patients (38 shock, 44 non-shock), the shock group showed higher Strain Heterogeneity Index (SHI) ($7.2 \pm 1.8\%$ vs $4.1 \pm 1.6\%$, $p<0.001$), more gray zones (>5% strain difference) (median 5 vs 2, $p<0.001$), greater apical involvement (68% vs 32%, $p=0.002$), and lower GLPS (-9.8% vs -12.4% , $p<0.001$). SHI >6.0% was the best single predictor of VT/VF (AUC 0.88), followed by ≥4 gray zones (AUC 0.83), GLPS <-10.5% (AUC 0.79), and apical involvement (AUC 0.74). A combined model (SHI, gray zones, GLPS, apical involvement) achieved AUC 0.93, good calibration (Brier score 0.237), and superior decision curve benefit, independent of LVEF.

Conclusion:

In this cohort of patients with structural heart disease, mechanical dispersion captured by strain heterogeneity mapping proved to be a powerful and independent marker of malignant ventricular arrhythmias. The Strain Heterogeneity Index (SHI), in synergy with gray zone burden, apical involvement, and GLPS, yielded a robust predictive model with AUC exceeding 0.90 and demonstrable net clinical benefit. These findings suggest that VT/VF vulnerability is not merely a function of global LV function, but of the spatial instability of myocardial contraction. Incorporating segmental strain heterogeneity into routine echocardiographic assessment may enable earlier identification of high-risk patients and refine selection for ICD therapy, potentially preventing sudden cardiac death in those overlooked by current guidelines.

Keywords:

SPECKLETRACKINGECHO HERATFAILURE VENTRICULARARRHYTHMIA

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25 SEPTEMBER, 2025

THURSDAY

DON'T MISS

Massumi Hall (EP Hall)

Approach to PVC in 2025

Session 1 08:00-09:00

• Chairperson: Emkanjoo Z, Eftekharzadeh M

• Speaker: Eslami M

26 SEPTEMBER, 2025

FRIDAY

DON'T MISS

Florence Hall

Aorta endovascular treatments (90 min)

Session 4 14:00-15:30

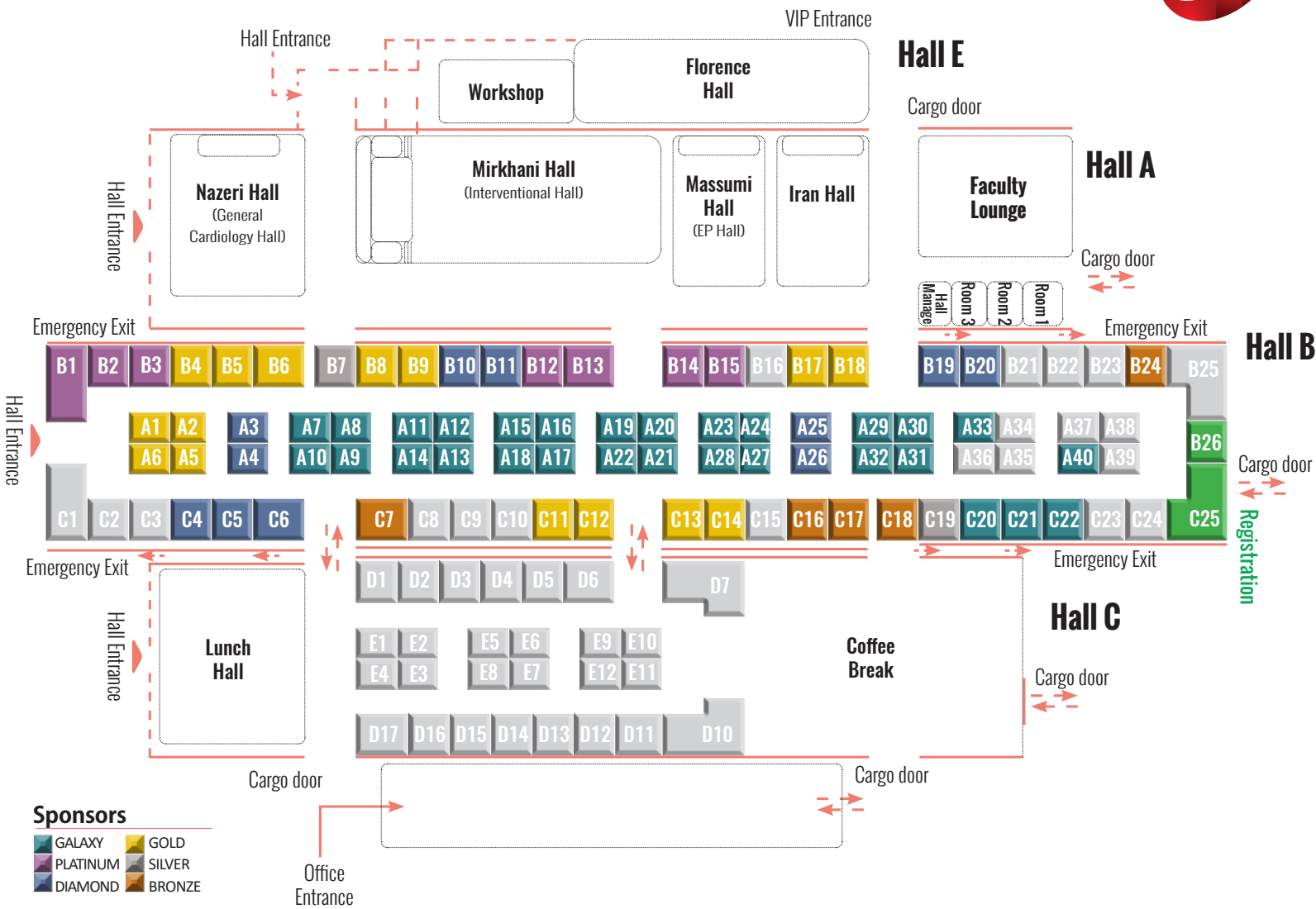
• Moderator: Abdi S

• Panel Members: Ghasemi M, Raiszadeh M, Ghavidel AR, Pouraliakbar HR, Mousavizadeh M, Shafe O

EXHIBITION

Milad Tower Exhibition Center / Tehran - Iran

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Incidence of metabolic syndrome and its association with hs-CRP and RC levels in a large cohort study

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Introduction: Background:

Metabolic syndrome (Mets) is a group of related metabolic disorders, such as central obesity, dyslipidemia, hypertension, and hyperglycemia, which together increase the risk of cardiovascular disease, stroke, and type 2 diabetes. The impact of high-sensitivity C-reactive protein (hs-CRP) and remnant cholesterol (RC) on the development of metabolic syndrome is not well understood. Purpose: This study investigates the incidence of Mets and its relationship with high-sensitivity hs-CRP and RC levels among participants in a large cohort study.

Materials and Methods:

Methods: This study, initiated in 2007, conducted an extensive survey of the population using stratified cluster sampling. A total of 9,704 individuals aged 35 to 65 were recruited, with 7,560

completing the decade-long follow-up. This analysis focused on 4,691 participants without Mets at baseline. Demographic, anthropometric, biochemical, and clinical data were meticulously collected. Statistical analyses, including Cox regression, were performed using SPSS version 26 to assess the associations between hs-CRP, RC levels, and the development of Mets.

Results:

Over the decade, 1,599 participants (34.1%) developed Mets. Higher RC levels, particularly when combined with elevated hs-CRP, significantly increased the risk of Mets, with a more pronounced effect in females. Elevated hs-CRP alone did not significantly increase Mets risk (Table 1). Participants with higher RC and hs-CRP levels exhibited greater obesity, higher blood pressure, and adverse lipid profiles, indicating a higher risk of cardiovascular diseases. The shortest median survival

times were observed in the RC ≥ 24 & hsCRP ≥ 3 group, with males generally having slightly longer survival times than females. (Table 2)

Conclusion:

Our findings highlight the critical role of RC and hs-CRP levels in predicting Mets and associated health outcomes. Monitoring these biomarkers is essential for early identification and management of at-risk individuals, especially females. Future research should focus on elucidating the underlying mechanisms and developing targeted interventions to mitigate the health risks associated with elevated RC and hs-CRP levels.

Keywords:

hsCRP, Remnant cholesterol, Metabolic syndromes

Assessment of the prevalence and associated risk factors of LQTS, with a focus on medication use, among patients with cardiovascular disease referred to Shahid Chamran Heart Hospital

Background:

Given the importance of LQTS and its association with potentially fatal ventricular arrhythmias, assessing its prevalence across diverse populations is crucial. This study aims to determine the prevalence of LQTS and its associated risk factors, with a particular focus on medication use, among patients with cardiovascular disease admitted to a Heart Hospital in Iran.

Method:

Upon arrival at the emergency department, all patients were evaluated, and relevant data including medication use, past medical history and lab data were extracted from their medical records. Additionally, A 12-lead ECG was obtained from each patient at admission. In this study, the QT interval has been reported using both the Bazett and Hodges formulas. QTc thresholds were defined according to both the 2009

AHA/ACCF/HRS guideline and the 99th percentile reference values.

Result:

A total number of 371 individuals presented to the emergency department of Shahid Chamran Heart Hospital were included in this study. According to the 2009 guideline, 135 (36.4%) patients were diagnosed with LQTS based on the Bazett method, compared to 64 (17.25%) with the Hodges method. When considering the 99th percentile cutoff, 67 (18.05%) patients had QT intervals above the 99th percentile using the Bazett formula and 31 (8.35%) using the Hodges formula. Among the patients with LQTS, three experienced Torsades de Pointes (TdP) during hospitalization, and one patient succumbed to complications related to the syndrome. Of the 64 patients diagnosed according to the AHA/ACCF/HRS 2009 guideline, 27 (42.18%) were found to be using QT-prolonging medications.

Furthermore, A significant correlation was observed between medication use and the incidence of LQTS.

Conclusion:

The prevalence of LQTS observed in the present study was slightly higher than in other studies, which may be attributed to the selection of a cardiac patient population. A significant correlation was observed between medication use and the incidence of LQTS. The significance of this finding is underscored by the fact that, in some cases, simply altering or discontinuing a medication can markedly reduce the risk of developing LQTS and its severe complications.

Keywords:

Cardiovascular disease, Long QT syndrome, Ventricular arrhythmias, Prevalence

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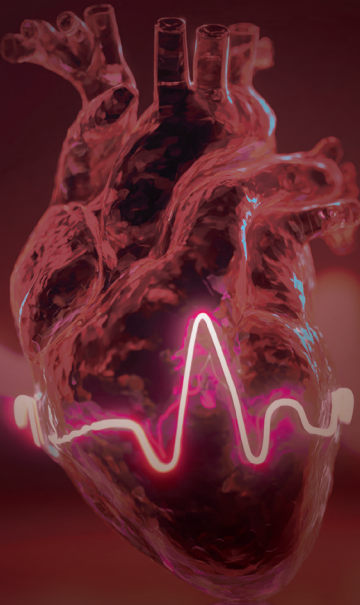
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 OPENING HOURS ICCU 2025			
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SEPTEMBER 2025 TUESDAY	SEPTEMBER 2025 WEDNESDAY	SEPTEMBER 2025 THURSDAY	SEPTEMBER 2025 FRIDAY
Registration 09:00-16:00	Registration 07:00-16:00	Registration 07:00-16:00	Registration 07:00-12:00
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Exhibition 09:00-16:15	Exhibition 08:00-18:30	Exhibition 08:00-19:00	Exhibition 08:00-15:30
	Training Village 08:00-18:30	Training Village 08:00-19:00	Training Village 08:00-15:30





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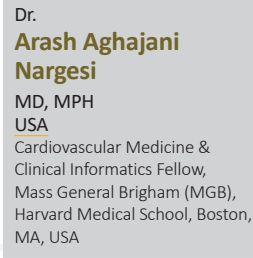
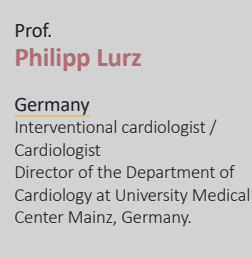
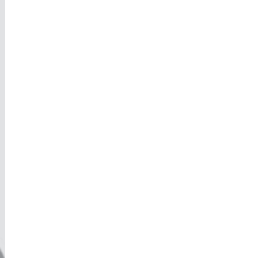
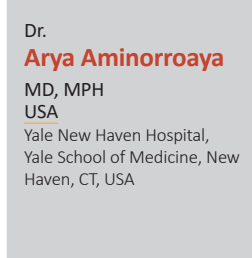
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	Dr. Mansour Razminia <u>USA</u> MD Director, Cardiac Electrophysiology, Northwestern Medicine, Palos, Illinois		Prof. Kalyanam Shivkumar <u>USA</u> MD, PhD Interventional cardiac electrophysiology Professor of Medicine, Radiology & Engineering @ UCLA, Editor-in-Chief, JACC Clinical Electrophysiology		
	Dr. Hamid Reza Salehi <u>Australia</u> Consultant Cardiologist Department of Cardiology Austin Hospital, Melbourne, Australia		Prof. Tommaso Gori <u>Germany</u> MD PhD Interventional cardiologist / Cardiologist, Professor for Translational Vascular Medicine University Medical Centre, Johannes Gutenberg University Mainz, Mainz, Germany		
	Dr. Majid Ahoopai <u>Germany</u> Consultant Interventional Cardiologist at Heart Center of University Medicine of the Johannes Gutenberg-University Mainz Mainz, Germany		Dr. Erfan Ghoojani <u>Oman</u> Specialist Cardiologist Cardiologist at NMC Specialty Hospital		
	Prof. Philipp Lurz <u>Germany</u> Interventional cardiologist / Cardiologist Director of the Department of Cardiology at University Medical Center Mainz, Germany.		Prof. Hikmet Yorgun <u>Turkey</u> Cardiac Electrophysiologist / Professor/ Arrhythmia Unit, Hacettepe University, Ankara, Türkiye		

25 SEPTEMBER. 2025
THURSDAY

DON'T
MISS

Nazeri Hall (Interventional Hall)
Aortic Valve (1st Session)

Session 4 14:00-15:30

- Moderators: **Namazi MH, Alipour Parsa S**
- Panel Members: **Safi M, Kazemi Saleh D, Khosravi AR, Ahoopai M** (Germany)
- Speakers: **Khosravi AR, Taherkhani M, Ahoopai M** (Germany), **Eslami V**

24 SEPTEMBER. 2025
WEDNESDAY

DON'T
MISS

Nazeri Hall (Interventional Hall)
Aortic Valve (2nd Session)

Session 5 16:00-17:30

- Moderators: **Abdi S, Alemzadeh MJ**
- Panel Members: **Ghasemi M, Shabestari M, Lotfi SH** (Germany), **Gerayeli B, Hamidzad M**
- Speakers: **Firouzi A, Alemzadeh MJ, Khalilipour E, Ahoopai M** (Germany), **Taghipour M**

Hydroalcoholic Extract of Pinus eldarica Mitigates Doxorubicin-Induced Cardiovascular Toxicity in Male Wistar Rats

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Introduction:
Doxorubicin (DOX) is a chemotherapy agent known to cause cardiotoxicity, a serious adverse effect that may lead to heart failure. This study aimed to explore the potential cardioprotective effects of hydroalcoholic extract from the bark of Pinus eldarica against DOX-induced cardiac damage in rats.

Materials and Methods:
Male Wistar rats were randomly assigned to five groups: a control group, a DOX-induced cardiotoxicity group (single dose of 20 mg/kg intraperitoneally on day 10), and three treatment groups receiving DOX plus oral administration of P. eldarica bark extract at doses of 100, 200, and 400 mg/kg for 14 days. At the end of the experiment, body weight, cardiac electrical activity, serum markers of cardiac injury, oxidative stress parameters, and histopathological changes in heart tissue were evaluated.

Results:
DOX treatment caused a decrease in the R-R interval along with an increase in heart rate. It also elevated serum levels of creatine phosphokinase (CK-MB), lactate dehydrogenase (LDH), aspartate aminotransferase (AST), and malondialdehyde (MDA), coupled with significant myocardial cell damage. Administration of P. eldarica extract at 200 and 400 mg/kg significantly reversed these adverse effects.

Conclusion:
Pretreatment with Pinus eldarica bark extract effectively protected against DOX-induced structural and functional cardiac damage by reducing oxidative stress, myocardial injury markers, and improving cardiac electrical function in rats.

Keywords:
Doxorubicin, cardiotoxicity, Pinus eldarica.



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THE ASSOCIATION BETWEEN CORONARY ARTERY ECTASIA AND RED CELL DISTRIBUTION WIDTH

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Introduction:

Coronary artery ectasia (CAE) is an abnormal dilation of the coronary lumen, with a prevalence of 0.3-5% in patients undergoing angiography. Atherosclerosis is the main cause, while congenital anomalies, connective tissue and inflammatory diseases, infections, toxicity, and trauma also contribute. Markis et al. classified CAE into four types, from diffuse multi-vessel to localized ectasia. Red cell distribution width (RDW), routinely measured in complete blood counts, reflects variation in erythrocyte size and is mainly used in anemia evaluation. Recent studies show elevated RDW independently predicts adverse outcomes in cardiovascular disease, acute coronary syndrome, and heart failure. This study aimed to assess the relationship between CAE and RDW, which may clarify its role as a potential marker for early detection and improved management of CAE.

Methods:

This analytical cross-sectional study was conducted on patients who underwent coronary angiography at Afshar Yazd Hospital between March 2015 and July 2021. All angiography reports were reviewed, and cases of coronary artery ectasia (CAE) were identified and re-evaluated by an interventional cardiologist. Patients with liver or kidney dysfunction, heart failure, valvular disease, thyroid disorders, or coronary stenosis >30% were excluded. Those with anemia who had received transfusion or erythropoietin therapy were also excluded. Data on RDW levels and demographic characteristics—including age, sex, diabetes, hypertension, dyslipidemia, BUN, creatinine, mean corpuscular volume (MCV), white blood cell (WBC) count, and the type and extent of vessel involvement (LAD, LCX, RCA)—were collected from patient files and reports. Missing data was supplemented by contacting patients when needed. A control group of 370 individuals without CAD or CAE was also included, and their RDW and demographic data were obtained from medical records. Statistical analysis was

performed using SPSS version 22. Continuous variables were expressed as mean ± SD, categorical variables as percentages, and comparisons between groups were made using the Chi-square test.

Results:

Among 19,421 patients undergoing angiography, 369 (1.9%) had CAE. The mean age was 57.4±12.2 years (27–85), and 61.5% were male. Mean hemoglobin was 14.5±4.4 g/dl, ejection fraction 50±7%, and RDW 13.7±0.7% (11–16.5%) in CAE patients versus 12.9±0.6% (8.3–17.5%) in controls. Comorbidities included diabetes in 24.1%, hypertension in 41.2%, hyperlipidemia in 28.5%, and smoking in 7.2%. No significant difference was found in RDW between CAE and controls (13.3±0.75 vs. 12.7±0.82, P=0.623). Similarly, RDW showed no significant variation based on vessel involvement, number of affected vessels, or CAE type according to the Markis classification.

Conclusion:

In this study of 19,421 angiography patients, the prevalence of coronary artery ectasia (CAE) was 1.9% (369 cases). RDW levels did not differ significantly between CAE patients and controls, nor across subgroups based on vessel involvement, number of vessels affected, or CAE type according to Markis classification. The most frequent pattern of ectasia involved all three major coronary vessels, with Type I being the predominant category. The finding suggest that RDW marker has not significantly related to CAE diagnosis. Further research is warranted to identify alternative biomarkers that may improve the prognostic assessment and management of patients with CAE.

Keywords:

Coronary Artery Ectasia, RDW, Biomarker

25 SEPTEMBER, 2025

THURSDAY

DON'T MISS

Massumi Hall (EP Hall)

Cardiac Anatomy: What an Electrophysiologist need to know (90 min)

Session 5 16:00-17:30

- Moderator: Mikaieli J
- Panel Members: Hajimoradi B, Ghorbanisharif AR, Arya A (Germany), Sepehri Shamloo AR (Germany)
- Speakers: Jose Angel Cabrera (Spain), Kalyanam Shivkumar (USA), Razminia M (USA)

26 SEPTEMBER, 2025

FRIDAY

Mirkhani Hall (General Cardiology Hall)

CASE-BASED DISCUSSION SERIES

DON'T MISS

OBESITY CLINIC | HOW TO MANAGE CV DISEASE PATIENTS WITH OBESITY

Session 3 11:00-12:30

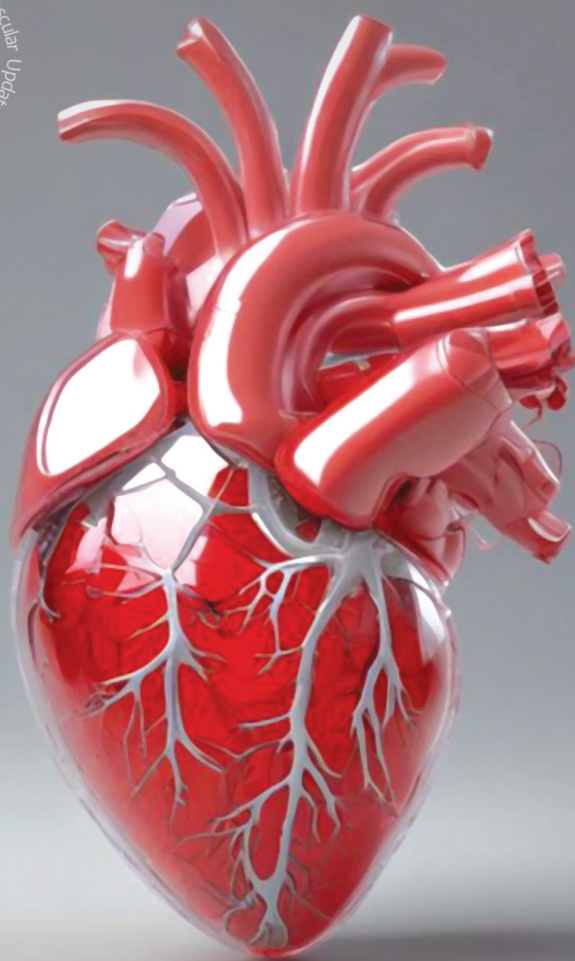
- Moderator: Ghanavati R
- Panel Members: Esteghamati AR, Kalbasi S, Sharif Kashani B, Nikousokhan AK, Eslami M, Mohammadi K

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