

CARDIOLOGY WEBINAR 2021 BOOK OF ABSTARCTS

Scholars Webinar on: CARDIOLOGY

THEME: "Innovations in the treatment of Cardiac Disease"



DAY 1 | 14 APRIL

11:00-17:00 (GMT)

11:00-11:10 Introduction

KEYNOTE FORUM



11:10-11:4014:10-14:40 (Speaker Local Time)Title: A randomized controlled trial of an eight week cardiac rehabilitation home verse
hospital exercise programme for post coronary cardiac bypass patientsMohammed A Takroni, King Faisal Specialist Hospital & Research Centre, Saudi Arabia



11:40-12:1013:40-14:10 (Speaker Local Time)Title: What is New in Electrophysiology TechnologiesSamir Rafla, Alexandria University, Egypt



 12:10-12:40
 15:10-15:40 (Speaker Local Time)

 Title: The Bee Products as Antihypertensive Therapeutics: A New Trend Study

 Zeliha Selamoglu, Nigde Ömer Halisdemir University, Turkey



12:40-13:10 08:40-09:10 (Speaker Local Time) Title: Cardiac sarcoidosis: Role of Multimodality Imaging for Diagnosis and Treatment Bhandare Deepti, AdventHealth Sebring, USA

13:10-13:30 - REFRESHMENTS BREAK

SCIENTIFIC SESSION



 13:30-13:50
 16:30-16:50 (Speaker Local Time)

 Title: Cardiovascular complications of COVID-19 - post-COVID syndrome

 Iana Simova, Heart and Brain Center of Excellence, University Hospital, Bulgaria



13:50-14:1021:50-22:10 (Speaker Local Time)Title: Beta-3 Adrenoreceptor: Boon or Bane in Heart Failure?Jeremy Owen Go, Capitol Medical Center, Philippines



 14:10 -14:30
 19:40- 20:00 (Speaker Local Time)

 Title: Cardiac MRI imaging of hypertrophic cardiomyopathy (HCM) with a review

 of recent literature

 Elizabeth Joseph, Christian Medical College Vellore, India



 14:30-14:50
 16:30-16:50 (Speaker Local Time)

 Title: Covid-19 in Spain and its cardiovascular aftermath

 Enrique Otero Chulian, Cardiologist Vithas Nisa Aljarafe Hospital, Spain



1**4:50-15:10 Title: TBA** Anju Bhardwaj, University of Texas, United States

 15:10-15:30
 17:10-17:30 (Speaker Local Time)

 Title: Transcatheter Mitral Valve Repair with Mitral Clip Implantation

 Carmen Maria Moldovan, Slagelse University Hospital, Denmark

09:50-10:10 (Speaker Local Time)



15:30-15:50 18:30-18:50 (Speaker Local Time) Title: Immediate outcome following valve surgery for rheumatic heart disease: the first local experience from Ethiopia Eakada D. Agwar Cardiac Contar of Ethiopia and El Ouzier Cardiac Contar Addir

Fekede D. Agwar, Cardiac Center of Ethiopia and El-Ouzier Cardiac Center, Addis Ababa, Ethiopia

15:50-16:10 - REFRESHMENTS BREAK



16:10-16:3019:10-19:30 (Speaker Local Time)Title: Catheter-Directed Thrombolysis for Patients with Intermediate-High Risk Pulmo-
nary Embolism: Is It Safe and Effective?Abdelmaksoud Elganady, Al-Azhar University, Saudi Arabia



16:30-16-5020:30-20:50 (Speaker Local Time)Title: CPR mock drills and the impact of performance in real CPRMohammad Shaban, Health point hospital, United Arab Emirates



16:50-17:1022:20:-22:40 (Speaker Local Time)Title: Action of Acetylcholine, Adrenaline, and Nicotine on HeartSudha Banasode, Solapur University, Solapur Shankarrao Mohite College, India



16:50-17:10 Slot Avaiable

17:30-17:50 - B2B MEETINGS AND NETWORKING

DAY 2 | 15 APRIL

11:00-17:00 (GMT)

07:05-07:35 (Speaker Local Time)

11:00-11:05 Introduction

KEYNOTE FORUM



11:05-11:3513:05-13:35 (Speaker Local Time)Title: Novel 3D morphological and functional assessment-based of vascular anastomosis for surgical education and clinical predictionBalazs Gasz, CEO @ YourAnastomosi, Hungary University of Pécs, Hungary



 11:35-12:05
 07:35-08:05 (Speaker Local Time)

 Title: Can of Early Atrial Fibrillation Ablation in the Setting of Sick Sinus Syndrome

 Decrease the need for Pacemaker Implantation

 Saima Karim, Case Western Reserve University, USA



12:05-12:35 Title: Diagnosing STEMI in patients with RBBB Yochai Birnbaum, Baylor College of Medicine, USA

12:35-13:05 15:35-16:05 (Speaker Local Time) Title: Underuse and Misuse of Newer Antidiabetic Medications in Patients at Risk and Established Cardiovascular Disease Syed Raza, Awali Hospital, Bahrain

13:05-13:25 - REFRESHMENTS BREAK

SCIENTIFIC SESSION



 13:25-13:45
 22:25-22:45 (Speaker Local Time)

 Title: Effective and efficient medical writing for journal publication

 Mary Shibuya, Gunma University Graduate School of Medicine, Japan



13:45-14:05 23:45-00:05 (Speaker Local Time) Title: TBA Pupalan lyngkaran, Notre Dame University, Australia



14:05-14:2519:25-19:20 (Speaker Local Time)Title: Novel Secondary Preventive Strategies after Acute Coronary SyndromePallavi Mishra, Panacea Institute of Interdisciplinary Research & Education, India



14:25-14:45

Title: In patient cardiac arrest in the ERA of Covid-19 Joyce Akwe, Emory University School Of Medicine, USA



14:45-15:05 16:45-17:05 (Speaker Local Time) Title: Ostial Chronic Total Occlusion (CTO) of LAD in a very young patient: the role of IVUS to plane a safe and succesfull procedure Daniele Forlani, Civil Hospital Holy Spirit Pescara, Italy



15:05-15:25 **20:35-20:55** (Speaker Local Time) Title: One Plus One is Eleven: A Synergistic Cardio Protection by Combination of GLP-1 Receptor Agonists and SGLT-2 Inhibitors Ashutosh Mishra, Panacea Institute of Interdisciplinary Research & Education, India



15:25-15:45 17:25-17:45 (Speaker Local Time) Title: Lung ultrasound in the diagnosis of hemodynamic pulmonary edema': the **BLUE-protocol** Daniel Lichtenstein, Hospital Ambroise Paré, Paris-West university, France



15:45-16:05 11:45-12:05 (Speaker Local Time) Title: Cardiac Disorders associated with Cannabis: A Review of Literature Bhandare Deepti, AdventHealth Sebring, USA



16:05-16:25

18:05-18:25 (Speaker Local Time) Title: The complete evidence that Starling's law for the capillary-interstitial fluid transfer is wrong: The correct replacement is the hydrodynamic of the porous orifice (G) tube

Ahmed Nasr Ghanem, Mansoura University, Egypt

POSTER

16:25-16:35

(Speaker Local Time) Title: Correlation between Serum Creatinine and Hemoglobin Level in Chronic Kidney Disease Patient with Hypertension: Study on Pre-Hemodialysis Patient at RSUD Ulin Banjarmasin

08:05-08:25 (Speaker Local Time)

Pradissa Avia Emeralda, Lambung Mangkurat University, Indonesia

16:35-17:00 - B2B MEETINGS AND NETWORKING

Closing



April 14-15, 2021 | W E B I N A R

KEYNOTE SPEAKERS

Day 1

CARDIOLOGY WEBINAR 2021





Mohammed A Takroni

King Faisal Specialist Hospital & Research Centre, Saudi Arabia

Biography

Dr. Mohammed Abdullah Takroni, a cardiac rehabilitation Consultant, Fellowship program in Cardiopulmonary Rehabilitation at Duke University and Medical (DUMC), North Carolina, USA, 1996. Master's degree in physical therapy from King Saud University 2008, Master degree in Sports Medicine and Rehabilitation, Manchester Metropolitan University (MMU), UK, 2009. Ph.D., in Cardiovascular and Pulmonary Rehabilitation, Glasgow Caledonian University, Glasgow, UK, 2011. Member of the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR), member of the Irish Association of cardiopulmonary rehabilitation (IACR), member of the British Association for Cardiovascular Prevention and Rehabilitation (BACPR), member of Saudi Heart Association (SHA). Develop the Cardiac Rehabilitation programs at King Faisal specialist hospital and research center (KFSH&RC), Riyadh, Saudi Arabia. Currently, head section of cardiac rehab team king Faisal Heart Institute, King Faisal specialist hospital and research center, and the inpatient supervisor, physical therapy department.

A randomized controlled trial of an eight week cardiac rehabilitation home verse hospital exercise programme for post coronary cardiac bypass patients

Background: The prevalence and morbidity and mortality rates of Coronary Heart Disease (CHD) continue to increase towards epidemic proportions in the Kingdom of Saudi Arabia (KSA). Despite the advances in Cardiac surgery, currently there are no established out-patient phase programmes of Cardiac Rehabilitation (CR) for CHD participants in KSA.

Aim of the study: To evaluate the effectiveness of a home-based CR (Home CR) programme using individualized exercise (Physiotools-R) and out-patient phase of CR (Hospital CR) programme compared to standard care of home instructions on physical function, physiological and psychological status, body composition and the quality of life of the CHD participants post Coronary Artery Bypass Graft (CABG) surgery.

Methods: 73 participants post-CABG surgery were randomly assigned to one of three groups: Hospital CR group (n=25), Home CR group (n=24) and Control group (n=24). Outcome measures include Incremental Shuttle Walk Test (ISWT), Metabolic Equivalent Tasks (METs), Psychosocial outcomes and body composition were recorded at baseline, eight weeks of CR intervention, and after four weeks of observation follow up.

Intervention: Hospital CR programmes comprised of group based Aerobic Circuit Training, home based structured individualised exercise programme. Each programme had 2 hours sessions, 3 times a week for 8 weeks, followed by four weeks of observation follow-up. The control group followed standard care comprised usual advice on post-operation precautions.

Results: The ISWT distance showed statistically significant increase in the three groups post 8 weeks of CR intervention. The Hospital group by 71 +9.19m, the Home group by 66+0.58m and the control by 3+1.39m,(p<0.001). There were no statistically significant difference between the two intervention groups (p>0.05); however, both intervention groups showed greater distance increase than that of control group (p<0.001). Post four weeks



of observation follow-up, the primary outcome measures (ISWT, METs, HADS-A, HADS-D, and the physical components summary (PCS) and mental components summary (MCS) of the SF-36 of the Home group showed statistically significant sustained improvement compared to the Hospital and Control group that showed significant reduction (p<0.001).

Conclusion: Home-based CR is as effective as hospital-based phase III CR programme post 8 weeks of intervention. This finding should inform the design and implementation of future cardiac rehabilitation services in KSA.





Samir Rafla Alexandria University, Egypt

Biography

The previous head of the cardiology department, Faculty of Medicine, Alexandria University, Egypt.

Published 33 papers listed in Google Scholar, 40 other papers published not available on the internet. Reviewer in National council for the promotion of professors in cardiology and critical care, reviewer of some journals, grader of abstracts of the European Society of Cardiology conference, and EHRA European Heart Rhythm Association conference.

Worked in ablation and device implantation in Alexandria Faculty of Medicine.

Chairperson or speaker in many conferences inside and outside Egypt

What is New in Electrophysiology Technologies

Leads are frequently cited as the weakest component of pacing. 1- Leadless Pacemakers solved the problems of leads. What is new that there is now dual chamber Leadless Pacemakers. 2- Subcutaneous ICDs, It only requires two very small incisions with no need to create a pulse generator pocket. 3- The first endocardial, leadless CRT pacing system. It uses an electrode about the size of a large grain of rice that is implanted inside the wall of the LV using transcatheter delivery. 4- Improved Ablation Technologies, laser ablation balloon technology. The combination of the balloon, camera and variable-energy, steerable ablation is able to eliminate the interoperator variability in ablation procedures. The energy level for each electrode can be tailored to prevent damage to neighboring nerves or the esophagus. 5- Increasing Safety in Lead Extractions. Spectranetics Bridge Occlusion Balloon, introduced in 2016, offers a new safety net during procedures, allowing rapid inflation of an intravascular balloon to seal the tear and allow the surgical team time to prep and perform a repair without fear of the patient. bleeding out. The device is credited with saving about 20 lives in the past year since gaining market clearance. the device is one of the most important new developments in lead extraction technology. 6- Replacing Holters With Wearable and Implantable Devices. 7- New Electro-mapping Systems, a basket catheter with 48 electrodes combined with 48 tiny ultrasound transducers. 8- MRI To Guide Ablation Procedures. 8- Ultrasound Guidance in the EP Lab. Two vendors have developed lightweight, compact, cart-based ultrasound systems that allow highquality intracardiac echocardiography (ICE) and transesophageal echo (TEE) in the EP or cath lab. 9- Apple Watch Series: Taking an ECG with the ECG app on Apple Watch Series. 10- Cardiac contractility modulation therapy in advanced systolic heart failure





Prof. Dr. Zeliha Selamoglu

Nigde Ömer Halisdemir University, Turkey

Biography

Zeliha Selamoglu is a Professor in Medical Biology department of Nigde Ömer Halisdemir University, Turkey. She earned her PhD in Biology from Inonu University, She has published over 160 peerreviewed journal articles with over 2250 citations and many technical reports. She is a member of Society for Experimental Biology and Medicine: Associate Membership and European association for cancer research. She has served as Editorial Board member for many Journals.

The Bee Products as Antihypertensive Therapeutics: A New Trend Study

Hypertension has been established as a significant risk factor for morbidity and mortality worldwide. Hypertension can be defined as a raised blood pressure (BP) based on altered hemodynamics of the systemic circulation. Atherosclerotic risk factors such as hypertension and aging augment the vascular generation of reactive oxygen species (ROS). Antihypertensive and antioxidative effects of various nutrition and natural products have been claimed. Honeybee products are one of these natural matters. These have some properties such as inhibitory effect against angiotensin-converting enzyme, vasodilatory activity by parasympathetic stimulation, or repressive features on release of noradrenaline from sympathetic nerves. Moreover, a diverse range of flavonoids and polyphenol metabolites from natural agents have been showed to have vasodilating and antihypertensive properties. Increasing of ROS amounts has been showed in experimental and clinical hypertension. Early investigations implied that applying the the nitric oxide synthase inhibitor, ended up as raised BP and ROS-mediated tissue injury. The present update study evaluates current findings on the antihypertensive properties of honey bee products and their therapeutic relevance to the clinic. Therefore, these studies will shed light on new researches allowing different usages of honeybee products to keep the inner balance of body constant and give direction to the developments of new extracts and preparations.





Deepti Bhandare

Advent Health Sebring, Florida, USA

Biography

Deepti Bhandare MD, FACC, RPVI, FASE is a Consultant Cardiologist at Advent Health Sebring, Florida. She completed her medical school in Goa Medical College, India. She completed Internal Medicine residency and Cardiology fellowship training in Wayne State University/Detroit Medical Centre in Michigan. She is the Vice Chair in the Department of Cardiology. She is the Director of the Echocardiography and Stress Lab, Heart Failure program and Cardiac Rehabilitation Centre. She is a member of the Board of The Directors of the Florida Chapter of American College of Cardiology. Her academic appointments include Associate Professor, Lake Erie College of Osteopathic Medicine and Chairman of the Clinical Competency Committee of ACGME accredited Internal Medicine Residency Program at Advent Health Sebring. She is the primary Investigator of Women's ischemia Trial to Reduce Events in Nonobstructive CAD [WARRIOR] study, which is a member of American College of Cardiology and American Society of Echocardiography. She has also served as the President of Medical Staff. Dr Bhandare is a peer reviewer of ten Medline indexed journals. She has had multiple national and international presentations.

Cardiac sarcoidosis: Role of Multimodality Imaging for Diagnosis and Treatment

The clinical presentation of cardiac sarcoidosis (CS) ranges from an incidentally discovered condition to heart failure and sudden death. The diagnosis of CS is tough, and as a result, CS is often under-recognized in clinical practice. CS is mostly noted in the setting of systemic sarcoidosis, though isolated CS can occur. Frequently clinical criteria require the diagnosis of extracardiac disease to establish the diagnosis of CS in the absence of having a positive endomyocardial biopsy. While endomyocardial biopsy provides a high specificity for diagnosing CS, this invasive test has a limited sensitivity. There is incomplete knowledge of disease development and a deficient consensus on the ideal methods for disease recognition. We discuss CS in general, the clinical disease, diagnostic algorithms, latest guidelines, and management.

Keywords: Cardiac sarcoidosis, Diagnosis, Cardiac imaging, Echocardiography, MRI, PET-CT, Treatment



April 14-15, 2021 | W E B I N A R

SCIENTIFIC TRACKS & ABSTRACTS Day 1

CARDIOLOGY WEBINAR 2021





lana Simova^{1, 2}

¹ Heart and Brain Centre of Excellence, Pleven, Bulgaria ² Bulgarian Cardiac Institute, Sofia, Bulgaria

Biography

Head of Cardiology Department, Heart and Brain Center of Excellence, University Hospital, Pleven Head of Cardiology Department, Acibadem City Clinic Cardiovascular Center – University Hospital, Sofia, associate professor associate professor at Department of Noninvasive Cardiovascular Imaging and Functional Diagnostics, National Cardiology Hospital Head of Scientific Department at MHAT "Doverie"; consulting physician at MC "Doverie" senior research associate at Department of Noninvasive Cardiovascular Imaging and Functional Diagnostics, National Cardiology Hospital

appointed physician and research associate at Department of Noninvasive Cardiovascular Imaging and Functional Diagnostics, National Cardiology Hospital

PhD procedure at the Clinic of Cardiology, University Hospital "Alexandrovska"; appointed physician at the University Hospital Losenetz, clinic of Cardiology.

Cardiovascular complications of COVID-19 - post-COVID syndrome

After the waves of acute COVID-19 that swept the mankind in 2020 and 2021, now we are confronted more and more with the challenge of Long COVID. According to its definition, Long COVID comprises all signs and symptoms of COVID-19 that persist after the acute phase (3 to 4 weeks), without an upper limit of duration (as for the present state of knowledge). The symptoms of Long COVID are highly variable, could affect every system, often overlap, and typically fluctuate and change over time.

According to our initial personal experience via the campaign "Life after COVID" of the Bulgarian Cardiac Institute, a substantial proportion of patients having suffered from COVID-19 continue to have persistent symptoms and develop long-term cardiovascular consequences, that require special and dedicated medical attention. Specific attention deserves the acute vascular manifestations of Long COVID, such as acute coronary syndrome, acute pulmonary embolism, and acute limb ischemia, and for these we share our personal experience, too.

Long COVID has and will have a major significance for the healthcare and economic systems in the upcoming years. This derives from the simple facts that it is highly prevalent, affects people regardless of age (including young and active people) or severity of the acute illness (even asymptomatic cases), and that we still must learn a lot about its pathogenesis, natural history, treatment, and prognosis.





Jeremy Owen Go Capitol Medical Center, Philippines

Beta-3 Adrenoreceptor: Boon or Bane in Heart Failure?

Background: In a recent publication, four beta blockers—Metoprolol, Carvedilol, Bisoprolol, and Nebivolol have shown good effects in heart failure. Published studies on the role of beta-3 receptor (B3AR) agonism over the past 3 decades had conflicting results. Recent experimental studies described its role in coupling mechanisms with nitric oxide, offering protection in damaged cardiac myocytes.

Objectives: The general objective is to study the role of B3AR in heart failure and to identify the effects of four known beta blockers used in guideline-directed medical therapy on B3AR. Specifically, we want to know which beta blocker will upregulate or downregulate B3AR.

Methods: A systematic review was carried out through literature search on PubMed, MEDLINE, Herdin, and Cochrane for human studies describing the effects of B3AR upregulation in heart failure. Specifically, we searched for published studies regarding proposed mechanisms by which beta blockers utilized in guideline-directed medical therapy can provide cardioprotective effects through B3AR upregulation or downregulation.

Conclusion: The beneficial effects of the four identified beta-blockers on heart failure patients are well-established, but their effects on B3AR are varied with different mechanistic beneficial effect.





Elizabeth Joseph Christian Medical College, Vellore, India

Cardiac MRI imaging of hypertrophic cardiomyopathy (HCM) with a review of recent literature

Hypertrophic cardiomyopathy (HCM) is an autosomal dominant genetic disorder with focal or diffuse left ventricular (LV) hypertrophy and no other underlying cause to explain the degree of hypertrophy (1).

The LV ejection fraction is typically preserved or increased.

HCM can be classified into two types: symmetric and asymmetric HCM. Asymmetric HCM can be categorized as asymmetric septal, mid ventricular, apical, and focal. (2,3,4)

There is a subset of 'preclinical HCM' with positive genotype and no hypertrophy on imaging. (5)

Though ventricular hypertrophy, morphology and functional parameters can be assessed by echocardiogram, Cardiac Magnetic Resonance Imaging (MRI) has a superior spatial and temporal resolution. It is the modality of choice for imaging HCM.

MRI helps differentiate HCM from other causes of LV hypertrophy like hypertension, aortic stenosis, athletes heart, amyloid, and storage disorders. (6)

Fibrosis can be identified and quantified on MRI using the late gadolinium enhancement (LGE) technique.

The LVOT gradient can be assessed by phase-contrast imaging but is easier done on echocardiography.

Newer techniques like parametric mapping (T1, T2 and ECV mapping) appear promising and are likely to be a useful adjuvant to standard imaging. (7)

Right ventricular hypertrophy, frequently involving the apical RV, may also be seen in HCM. (8)

Diastolic dysfunction is seen in preclinical HCM and clear HCM cases.

It is commonly assessed by Doppler echocardiography. Left atrial enlargement is an indicator of the severity of diastolic dysfunction. The left atrial volume of more than 27 ml/m2 in HCM is associated with an unfavourable outcome (9).

LV wall thickness > 30 mm, LVOT gradient of 30 mm of Hg and myocardial fibrosis >15% on late gadolinium enhancement help identify high-risk patients who may need an intracardiac device placement. (6)

A review of recent literature will be done during the presentation.





Enrique Otero Chulian

Cardiologist Vithas Nisa Aljarafe Hospital, Spain

Biography

Enrique Otero Chulian is Phd, fellow of the European Cardiology Society, European cardiologist, and has been: 1985-1987, assistant professor of internal medicine, University of Cadiz; director prevention & cardiac rehabilitation unit at University Hospital Puerta del Mar (Cádiz), head cardiology department Hospital Jerez 2016-2018; training in nuclear cardiology, at The University of Texas Health Science Center at Dallas & Parkland Memorial Hospital, EE. UU, by James T Willerson M. D. September-December 1984, sponsor of investiture as doctor "honoris causa" of the most excellence PROF. JAMES T. WILLERSON. University of Cadiz, Actually, works at the Vithas Nisa Hospital in Seville

Covid-19 in Spain and its cardiovascular aftermath

The first case registered in Spain took place in a tourist on December 31, 2019 on the Canary Island of La Gomera

In Spain, urgent public health measures were established due to the escalation of infections; For example, on March 12, social distancing measures were extended to the entire country.

<u>SPANISH DATA:</u>

The highest proportion of deaths has been among the elderly (> 60-70 years)

The estimated fatality rate fell to 0.8% (4.1% among those over 70 years, 0.04% between 50-69 years and \leq 0.003% under 49 years).

	Confirmed cases	Cured	Deceased
SPAIN	1.76 million	96296	48401
World	73,6 million	41.7 million	1.64 Million

National Study of ENE-COVID Seroprevalence (Pollán et al., 2020):

With samples from more than 61,000 citizens, which concluded that 5.2% of the Spanish population (almost 2.5 million people) had suffered the virus infection and had antibodies.

Conclusions: An important reduction in the activity in interventional cardiology has been observed during the COVID-19 epidemic. Likewise, a great decrease has been detected in the number of patients treated in the STEMI networks, with the risk of increased morbidity and mortality that this represents. Scientific societies and health authorities have to promote that patients presenting STEMI compatible symptoms proceed with no delay to access the health system to receive reperfusion treatment in an appropriate way.





Carmen Maria Moldovan MD, PhD^{1,2}, Manolis Vavuranakis MD, FESC²

¹Department of Cardiology, Slagelse University Hospital, Denmark, ²3rd Department of Cardiology, University of Athens, Greece

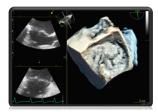
Biography

Carmen Maria Moldovan is cardiologist, interventional echocardiographer with PhD from Athens University, Greece. I am participating in all the percutaneous structural heart disease procedure, such as Mitral and Tricuspid Clip Implantation, Paravalvular leak Closure, ASD/PFO closure, Left Atrial Appendage Closure, TAVI. In the last year am working in Slagelse University Hospital, Denmark. I have participated and gave lectures in international congresses, such as EuroPCR, PCR London Valves, CSI Frankfurt. I am member of the PVL working group, Paris, France. My research activity is focus on established interventional techniques as well as innovated modalities applied to current cardiology and I have over 30 publications.

Transcatheter Mitral Valve Repair with Mitral Clip Implantation

82 year old female with progressive dyspnea (NYHA III) despite optimal medical therapy and Severe Mitral Regurgitation due to degenerative MV disease, prolapse mitral valve (Carpentier Type II), with normal Left Ventricular Ejection Fraction, Severe COPD, Chronic Atrial Fibrillation. She had also pulmonary hypertension (sPAP=65 mmHg) and at least moderate Tricuspid Regurgitation. Pre-procedure catheterization revealed no significant coronary artery disease

Her Logistic EuroScore was 25.79% and she was considered high risk patient. The Heart team`decision was to undergo percutaneous Mitral Clip Implantation.



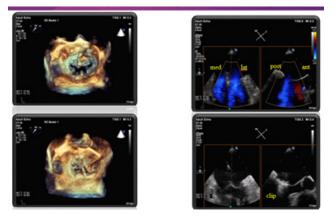
Myxomatous degeneration of the mitral valve

severe prolapse, of the A2, P2 scallops

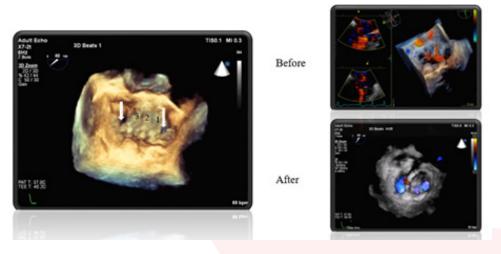
P2, P3 cleft.



Main Procedural Steps of the Mitral Clip Implantation



At the end of the procedure 3 Mitral Clip were implanted with a very good effect and with no complications.



At 6 months follow-up the patient is free of symptoms with mild Mitral Regurgitation, MV gradient less than 4 mmHg, moderate Tricuspid Regurgitation and lower PHT.





Fekede D. Agwar

Cardiac Center of Ethiopia and El-Ouzier Cardiac Center, Ethiopia

Biography

After attending undergraduate programme at Gonder University and general surgery at Addis Ababa University, Black Lion Hospital, went to Narayan Institute of Cardiac Science, Bangalore, India and studied cardiac surgery. I become the first cardiac surgeon for the country liberating the decade old missionaries based activity. Since then I performed more than 300 open-heart surgeries by leading the local team.

I performed cardiac surgeries from pediatric to adult from 6-month-old baby to a record 90 years old geriatrics patient for our country. I performed coronary artery bypass surgery from single to a record four-graft surgery successfully. In our country I also become the first to perform a beating heart bypass surgery. Among others; successful re do surgeries, left maze procedures, mitral valve repairs, multivalve surgeries, and AV canal defect with cor tri- atrium are the few.

Immediate Outcome Following Valve Surgery For Rheumatic Heart Disease: The First Local Experience from Ethiopia

Background: Rheumatic heart disease is the most common cardiac diseases in developing coun- tries including Ethiopia. The current study aimed to describe the immediate surgical outcome following valve surgery for rheumatic heart disease in Ethiopia.

Methods: Data were collected through chart abstraction from two centres in Addis Ababa, Ethiopia: the Cardiac Center of Ethiopia and El Ouzier cardiac centre. Included were all patients who were operated for rheu-matic valvular heart disease in the mentioned centres by local cardiac surgical team during the period from June 2017 to April 2020. Demographic and clinical characteristics of the study population at admission and within 30 days of the index cardiac surgery were collected. Statistical Package for Social Sciences version 20.0 for windows was used to analyse the data. Result: Of the 114 patients included in the study (median age 31 years with interquartile range of 23–40), 62 (54.4%) of them were female. Surgical procedures done were triple valve surgery 9 (7.9%) patients, mitral and tricuspid valves 26 (22.8%) patients, double-valve 16 (14.0%) patients, single-valve surgery 50.9% (11 aortic and 47 mitral valves) of patients, redo mitral valve surgery 3 (2.6%) patients, and left maze with mitral valve surgery 2 (1.8%) patients. Of the total, 103 (90.4%) of them had mitral valve surgery. Post-operatively, 5 (4.4%) patients died within 30 days following the index surgery.

Conclusion: Immediate surgical outcome following valve surgery for rheumatic heart disease had excellent outcome in our setting. This evidence can be taken as a show of success in building local capacity to manage rheumatic heart disease surgically.





Abdelmaksoud Elganady

Erfan and Bagedo Hospital, Saudi Arabia

Catheter-Directed Thrombolysis for Patients with Intermediate-High Risk Pulmonary Embolism: Is It Safe and Effective?

Background: Intermediate-high risk Pulmonary Embolism (PE) is common and carries a risk of progression to hemodynamic collapse and death. Catheter-Directed Thrombolysis (CDT) has be-come a recommended treatment option in intermediate-high risk PE. For such cases, CDT ensures recovery of echocardiographic and haemodynamic parameters and may be characterized by a better safety profile. We aimed to clarify the effectiveness of CDT in improving the short term disease-outcomes without increasing the risk of bleeding in intermediate-high risk PE.

Methods and Results: This is a single-centre retrospective observational study of consecutive fifty patients with a mean age of 55+04 with a primary diagnosis of sub massive PE with high-risk fea-tures, admitted to an intensive care unit between November 2018 and April 2020. We identified patients with intermediate-high risk PE to be treated with CDT of Tissue Plasminogen Activator (tPA), by our Pulmonary Embolism Response Team (PERT). We compared the outcome of patients before and after treatment with CDT. There was a significant improvement in symptoms and a de-crease in laboratory markers of myocardial injury (proBNP and Troponin-T). Also, comparing baseline echocardiographic parameters including RV: LV ratio, RV-TAPSE and sPAP with the same parameters after completion of CDT revealed a significant reduction in these parameters with improvement in right ventricular function. There were no in-hospital deaths secondary to haemor-rhage or procedure-related complications in the studied patients. During the follow-up range of three months after CDT, only 3 minor bleeding episodes were encountered but no hemodynamic decompensation, recurrent venous thromboembolism, major bleeding complications or death.

Conclusion: CDT can be used in patients with intermediated-high-risk PE safely and effectively. Future studies will further define the role of CDT in comparison to other revascularization strategies in the management of PE patients at increased risk.

Keywords: Pulmonary embolism, Catheter-directed thrombolysis, Pulmonary embolism response team, Tissue plasminogen activator.





Mohammad Shaban Health point hospital, United Arab Emirates

CPR mock drills and the impact of performance in real CPR

Background: Cardio Pulmonary Resuscitation (CPR) it's the way to save someone life after he suffer of cardiopulmonary arrest, this need good knowledge from many aspect like: Human Anatomy and Physiology, awareness of ECG and its arrhythmia, skills of IV/IO lines and correct practice of hand chest compression and ventilation.

Objective: This study approve the impact and positive outcome of CPR mock drills which use in hospitals premises.

Methods: A schedule training was conducted frequently for nurses who's employee in hospitals, clinics, education facilities and who attend outside camps and big community events. By providing life support courses as initial step, then after few weeks or months conduct sudden mock drills by using CPR manikin and monitor the performance and critical thinking of the team leader and CPR team. Finally conduct summarize and review of mock drill out come with positive and negative points. And if necessary we will do refreshing classes based on each task performance.

Results: The result show that CPR mock drills is indispensable to maintain high quality CPR skills and knowledge which increase the post cardiac arrest neurological outcome and discharge planning. In the same time it's decrease of mortality and morbidity rate.

Also Mock drills outcome reflect and measuring the understand of health care workers in taking the life support courses (BLS, ACLS and PALS). And the influence of instructors in teaching and increasing the knowledge and confidence of providers.

Conclusions: Quality of life support skills is mandatory in maintaining life of patients and minimizing potential errors which could be happen because lack of knowledge and training.



April 14-15, 2021 | W E B I N A R

KEYNOTE SPEAKERS Day 2

CARDIOLOGY WEBINAR 2021





Balazs Gasz

CEO @ YourAnastomosi, Hungary University of Pécs, Hungary

Biography

Dr. Gasz is a consultant cardiac surgeon with most clinical interrest in minimally invasive cardiac surgery. He is engaged in postgraduate and graduate surgical education and innovative solutions for education and training of basic surgical and specialised skills. He leads the Surgical Society at University of Pecs, targeting the reformation and student-need based education in area of surgery. His is the head of Clinical Division of 3D Center of University of Pecs, where engineers, physicians, designers work together to make custized, personalized therapies, planning of implant and surgical planning. Together with interdisciplinary team, they founded the Youranastomosis project, which visionalizes to convert surgical education data-driven with combination of several technologies allowing an benchmarked and effective feedback of results and realistic appearance of different cases during felxibly available hands-on training.

Novel 3D morphological and functional assessment-based of vascular anastomosis for surgical education and clinical prediction

Background: Educational methods in surgical skill training presently lack the real objective and comprehensive evaluation of performance as well as have limited scalability and options for blended learning. We aimed to validate a new method and measure its effectiveness by comparing it with a standardized conventional vascular training course.

Materials and Methods: The novel method for training surgical techniques is rapid, reproducible, easy-to approach, and applies continuous, self-assessment vascular evaluation of anastomoses. Learners in the study group received a high-resolution 3D representation of vessel structure and predictive function of them (demonstration of in silico blood-flow parameters) after every anastomosis as feedback. The control group received a conventional course together with a demonstration of morphological and functional results. The setting of the courses, demography of attendees, assistance, support of instructors and feedback given by instructors was identical in both study and control groups.

Results: After analyzing 160 in silico simulations, both groups demonstrated a tendency of improvement in blood flow parameters in the 7th anastomoses compared to the first one. Overall performance of anastomoses improved (in parameters of energy loss, energy efficiency, fractional flow reserve, pressure-drop, wall shear stress), the studied group showed significantly improved values.

Conclusion: In training of vascular anastomoses with a consecutive reflection of morphological and functional end-result contributes to the beneficial improvement of skills. Our study suggests that continuous demonstration of potential pitfalls, morphological alteration can increase the efficiency of technical skill training, while methodically it increases scalability and online availability. This method is also applicable for teaching AVF anastomosis surgical skills.





Saima Karim

DO, FACC, FHRS Associate Program Director for Electrophysiology Fellowship Assistant Professor of Medicine, Case Western Reserve University, USA

Can of Early Atrial Fibrillation Ablation in the Setting of Sick Sinus Syndrome Decrease the need for Pacemaker Implantation

Introduction: The role of atrial fibrillation ablation in the need for pacemaker with concomitant sinus node dysfunction among those with sick sinus syndrome is unknown.

Methods: Our study focused on assessing 66,595 patients who underwent atrial fibrillation ablation who have a diagnosis of atrial fibrillation ablation IBM Explorys database, which contains de-identified database of 60 million patients in the US. The role of atrial fibrillation within 0-5 years, 5-10 years and after 10 years of diagnosis of atrial fibrillation was assessed in relationship to need for pacemaker.

Results: Atrial fibrillation ablation proved to be beneficial in reducing the need for pacemaker implantation in patients if it was performed within 5 years of diagnosis of atrial fibrillation among patients with sick sinus syndrome.

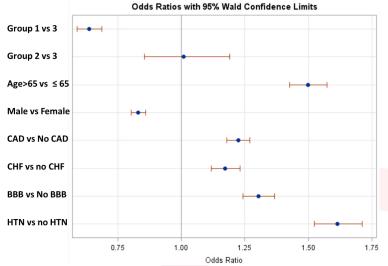


Figure 1: Forest plot showing adjusted odds ratio of pacemaker implantation in different risk groups. The dots represent the odds ratio, and the horizontal line represents the 95% confidence interval. Abbreviations; CAD: coronary artery disease, CHF: congestive heart failure, BBB: bundle branch block, HTN: hypertension.





Yochai Birnbaum, MD

Baylor College of Medicine, Houston, USA

Biography

Yochai Birnbaum has completed his MD in 1982 at the Hebrew University, Jerusalem, Israel. He is a Professor of Medicine at Baylor College of Medicine, Houston, Texas. He has published 384 papers in reputed journals and has been serving as an editorial board member of several journals. He is the Editor in Chief of Cardiovascular Drugs and Therapy.

Diagnosing STEMI in patients with RBBB

The 2017 ESC guidelines for STEMI also specify "Patients with myocardial infarction and RBBB have a poor prognosis. It may be difficult to detect transmural ischemia in patients with chest pain and RBBB. Therefore, a primary percutaneous coronary intervention strategy (emergent coronary angiography and percutaneous coronary intervention if indicated) should be considered when persistent ischemic symptoms occur in the presence of RBBB". However, recent studies have questioned this recommendation. There are no data on outcomes with and without primary percutaneous coronary intervention in patients with chest pain and presumed new RBBB without ST deviation. Diagnosing ST elevation in the inferior and lateral leads can easily be done in patients with RBBB. However, most patients with RBBB have ST depression in the anterior leads on their baseline ECG. Therefore, diagnosing inferolateral (true posterior) STEMI equivalent in patients with RBBB and baseline ST depression in V1–V3 is difficult. It is also unclear whether the threshold for ST elevation in the anterior leads V1–V3 should be reduced. It could be that the adverse outcomes seen in patients with RBBB is related to underdiagnosis of inferolateral and anterior STEMI.





Dr Syed Raza Awali Hospital, Bahrain

Biography

Dr Syed Raza graduated from Aligarh University in India in 1993. After completing his postgraduate degree in Medicine from the same university, he moved to the UK for higher specialist studies. He successfully completed MRCP and CCT and later also awarded Fellow of the Royal College of Physicians of Edinburgh. He was awarded professor John Goodwin prize for outstanding performance in Diploma Cardiology exam at Hammersmith Hospital, University of London in 2001. Dr Raza is Fellow of American College of Cardiology , American College of Chest Physicoans as well as Fellow of European Society of Cardiology. He is also on the committee of Acute Cardiovascular Care. Heart Failure and Cardiovascular Imaging (European Society of Cardiology)

He is currently serving as consultant in Cardiology and Head of the department of Medicine at Awali Hospital, Bahrain. He is the educational coordinator and chairman of resuscitation committee of the hospital. He is the regional coordinator and examiner for MRCP exam for the Royal College of Physicians of Edinburgh. He is external examiner for Arabian Gulf Medical University. He is also the immediate past chairman of Medical Advisory Committee. He has to his credit numerous publications and he has presented his work in different parts of the world. He is peer review author for some well respected Internation journil.

He is Review author for abstracts for European Society of Cardiology Annual Congress

Underuse and Misuse of Newer Antidiabetic Medications in Patients at Risk and Established Cardiovascular Disease

Diabetes is a growing problem globally despite all advances in its management strategy. In the last decade particularly there has been a plethora of newer anti diabetic medications that have been introduced in the market.

Recent trials and studies have shown promising results in terms of cardiovascular event reduction using some newer classes of anti-diabetic medications such as GLP1 agonist and SGLT2 Inhibitors. There are now wellestablished guidelines on use of these medications in certain group of patients. The pathophysiology of how they work, and their potential benefit are now well understood. Despite clear recent guidelines, a significant proportion of patients with established or risk of CVD are not on appropriate anti-diabetic medications.

It is therefore needed that practicing physicians are educated and made aware of the use of these medications. At the same time, they also need to be aware of any side effects and contraindications and therefore use them judiciously. A wiser decision and choice of these agents should be made in partnership with the patient after they are adequately educated of the proposed new medication.



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SCIENTIFIC TRACKS & ABSTRACTS Day 2

CARDIOLOGY WEBINAR 2021





Mary Shibuya

Gunma University Graduate School of Medicine, Japan

Biography

Mary Shibuya is an experienced native English medical editor/writer of 36 years living in Japan with a background in chemistry and allergy research at Mayo Clinic (Rochester, MN). For 23 years she was the language editor of the journal "Internal Medicine," published by the Japanese Society of Internal Medicine. In addition to editing and preparing research articles for publication in international journals, she has attended various medical/ scientific congresses as Press (interviews, transcription, summarizing). She also lectures on scientific medical writing in English to graduate schools and pharmaceutical companies, as she strives to encourage ESL doctors/researchers to publish their work in English in world-renown peer-reviewed journals.

Effective and efficient medical writing for journal publication

In the "Publish or Perish" struggle, clear medical writing is a key to the final goal of journal publication. In addition to representing the facts, whether they are from basic research results or a clinical case, often background information is necessary for orientation. Although lengthy sentences seem to be a sophisticated means to achieving a manuscript, the meaning of such sentences is difficult for the English as a second language (ESL) audience. In today's global scientific audience, most are likely to be ESL readers. Therefore, effective and efficient sentences are critical to achieve worldwide understanding. This presentation will focus upon the best ways to remove unnecessary sentence components and avoid choppy paragraphs. Punctuation, which is an extremely useful tool to improve text readability, will be discussed. In addition to highlighting the typical errors often encountered in draft revision (headings, tenses, paragraphs, spelling, citations, figures, tables, references, and legends), a final draft checklist and valuable resource materials will be noted.





Pallavi Mishra

Panacea Institute of Interdisciplinary Research and Education, India

Biography

Doctor Pallavi Mishra is a medical graduate from Allahabad medical university. She has done her post-graduation from King George Medical University which is among the top three medical universities in the country. Her area of interest is preventive cardiology, cardiovascular disease & Diabetes, Cardiac imaging, woman cardiology, and Heart failure. She is a program coordinator in the cardio-diabetes self-management and education program. She is Faculty and Head Department of Cardiology in Panacea Institute of Interdisciplinary Research and Education (PIIRE), Varanasi. She is chairman of CARDIABCON society, a national body of Cardio-diabetes and Renal Disease.

Novel Secondary Preventive Strategies after Acute Coronary Syndrome

Cardiovascular disease is the major cause of death globally. Out of 17 million premature deaths, 37% are caused by CVDs. Acute Coronary Syndrome (ACS) is a term used to describe a range of conditions associated with suddenly reduced blood flow to the heart. This presentation discusses various risk models with the acute coronary syndrome. Based on secondary research the presentation concludes that despite standard care treatment of post-ACS patients there is a mortality of around 20% means there is some residual cardiac risk that can be predicted by the GRACE registry and should be filled by a novel approach. This presentation further discusses various novel approaches like LDL and Lipoprotein A lowering, Triglyceride, Anti-inflammatory drugs, reduction of atherothrombosis by low dose Rivaroxaban and different blood-glucose-lowering approaches by GLP-1 RA & SGLT-2 inhibitors to fill the gap of residual cardiac risk. The LDL lowering approaches includes the utility of Ezetimibe and PCSK -9 inhibitors. The triglyceride reduction approach includes the use of high-dose eicosapentaenoic acid (EPA) in this subgroup of the patient. Furthermore, the Anti-inflammatory approach includes the use of canakinumab (CANTOS Trail) and Colchicine in a particular subgroup of patients. Recently the use of low dose Rivaroxaban has immersed as a novel approach to target the atherothrombosis in case of chronic stable coronary artery disease (COMPASS Trail). Finally, the miscellaneous approaches like SGLT-2 inhibitors and GLP-1 receptor agonist decrease the residual risk. The presentation also discusses the clinical outcome related to various agents and based on discussions of these approaches, the presentation suggests the key take-home point for clinicians. This presentation provides a complete overview of secondary prevention strategies after acute coronary syndrome, residual cardiac risk, different approaches, and various trials. The presentation will be immensely helpful for the clinician involved in the secondary prevention of acute coronary syndrome.





Joyce Akwe Emory University School of Medicine, USA

Biography

Dr. Joyce Akwe is an Associate Professor of Medicine at the Emory University School of Medicine. She is the Chief of Hospital Medicine at the Atlanta VA Health Care system. Dr. Akwe is also the chair of the CPR committee and the lead for simulation at the Atlanta VA Health care system. Her interests are in Quality Improvement, Medical Education and Medical Simulation. She has completed and published more than 50 peer reviewed articles, abstracts or book chapters. She has done extensive work on cardiac arrest and resuscitation, and has presented her work in multiple national and international conferences.

In patient cardiac arrest in the ERA of Covid-19

The evolving and unpredictable nature of Covid-19 has created challenges in how to manage in-patient cardiac arrest in patients with Covid 19 or patients under investigation for Covid -19. Existing American Heart Association (AHA) Cardiopulmonary Resuscitation (CPR) guidelines did not address the challenges of providing CPR in the setting of Covid-19. AHA provided guidance based on expert opinion in April 2020 on the management of cardiac arrest during Covid 19. They recommend adopting this guidance locally based on current disease burden and available resources.

The objective of this presentation will be for leaners to learn strategies to:

- Reduce the exposure of rescuers to Covid-19 during in-patient cardiac arrest on patients with Covid-19(SARS-CoV2) or patients under investigation for covid-19(PUIs).
- Reduce cross contamination during cardiac arrest management
- · Prioritize oxygenation and ventilation strategies with lower aerosolization risks





Daniele Forlani, 1- Dr. Massimo Di Marco, Dr. Alberto D'Alleva, Dr. Tommaso Civitarese, Dr. Laura Pezzi, Dr. Roberta Magnano, Dr. Piergiusto Vitulli, Dr. Fabio Fulgenzi and Dr. Leonardo Paloscia

Department of Intensive Care Unit and Interventional Cardiology, Civil Hospital "Holy Spirit" Pescara, Italy

Biography

Dr. Daniele Forlani carries out interventional activities from 2005. In this years he participate to some course to improve knowledge in IVUS, OCT, FFR and iFR, Laser, Rotablator and many course for complex PCI. He is dedicated to percutaneous CTO recanalizations and he has followed a training for antegrade and retrograde procedures from 2012 to 2016 under the proctoring of dr. Roberto Garbo. During his training Dr. Forlani took part in several antegrade and retrograde ordinary and complex CTO procedures performed in Turin, in his Center and in other hospitals. Furthermore, he followed in Turin the 2011 meeting focused on the use of IVUS in CTO procedures, the 2012 and 2013 editions of the CTO Summit in Turin and he was invited as a case review presenter in the 2014, 2015 and 2016 edition and in 2015 and 2017 edition he won the best clinical case presentation. He was speaker in several international meeting in (GISE, PCR, TOBI, CTO summit, Gulf-PCR) and poster presenter in other important convention (ACC, SCAI, TCT). In 2020 he was awarded as the best clinical case in CTO meeting of Italian Society of Interventional Cardiology (GISE).He achieved the Universitary Master of II level in Interventional Cardiovascular and Structural Cardiology of "Scuola Universitaria Superiore Sant'Anna di Pisa".

Ostial Chronic Total Occlusion (CTO) of LAD in a very young patient: the role of IVUS to plane a safe and succesfull procedure

A young man 48 years old with hypercolesteorimia. That have some chest pain from severals years. He performed an exercise stress test that results doubt in symptoms and with a normal ECG. Then a TC coronary angiography demostrate a sub-occlusive occlusion of proximal LAD with a poor distal portion. The coronary angiography confirm the occlusion of LAD with some collateral from marginal branch and from right coronary artery.At ventriculography an hypo-akinesia of anterior, lateral and apical wall with an ejection fraction of 45%. Stress echo demostrate a vitality of lateral and anterior wall at 10 mcg of dobutamine.So we decide to plan a CTO and we calculate a J-CTO score that was 2 (presence of calcification and occlusion lenght more than 20 mm). We study the PRO antegrade (tapered CTO,a good ramus for ivus guided cap's puncture) and CONTRO antegrade (ostial LAD CTO near the left main and the reentry point on distal cap is on a trifurcation) and the PRO retrograde (some good septal not so angled to navigate and the diagonal brach is connect to LAD from retrograde injection) and CONTRO retrograde (many attention of re-entry point on ostial LAD, to avoid a dissection of left main) and at the end we decided to start with retrograde approach and prepare the antegrade for the reentry (combined approach). At the end we have a success to recanalize the LAD from a pure retrograde with a IVUS guidance antegrade reentry on ostial LAD.At the end we think that to plan strategy is the most important thing during a CTO procedure, combined strategy to change from retrograde to anterograde approach is very usefull. The knowledge of materials can make the difference and at the end the role of ivus during a CTO is very usefull to guide the procedure and avoid complication.wealthy to scarse-resource areas). Shortly, derived products. The FALLS-protocol2 uses, in acute circulatory failure, the B-line as direct parameter of clinical volemia and endpoint for fluid therapy. Cardiac arrest3. CEURF trains since 1989 at the bedside in our ICU.





Dr. Ashutosh Mishra

Department of Endocrinology, Diabetes, Immunometabolism and Vascular Medicine, Panacea Institute of Interdisciplinary Research & Education, India

Biography

Dr Ashutosh Mishra is a renowned Endocrinologist and Diabetologist from Varanasi. He has done his MBBS and MD from prestigious Institute of Medical Sciences, BHU and Fellowship in Diabetes from CMC Vellore. He is the Founder Director of Panacea Hospital and Diabetes Care Organization, where he also serves as head of Endocrinology, Diabetes & Metabolism. He has also served as an endocrinologist at prestigious hospitals like SGPGI, Lucknow and FORTIS Hospital, New Delhi. He is also the National Coordinator for Cardio-Diabetes Self-Management Education (CDSME) Program and Dean of Panacea Institute of Interdisciplinary Research and Education. He is also the national secretary of CARDIABON -A Society of Cardio Diabetes and Renal Disease.

One Plus One is Eleven: A Synergistic Cardio Protection by Combination of *GLP-1* **Receptor Agonists and** *SGLT-2* **Inhibitors**

Cardiovascular disease is a leading cause of mortality contributing up to 75% in the case of type 2 diabetes. Before the advent of SGLT-2 Inhibitors and GLP-1 Receptor Agonists (RA), there were hardly any benefits on cardiovascular mortality in the treatment of Type-2 Diabetes patients with an Oral Antidiabetic Drug (OAD). Recent evidence of cardiovascular outcome trial(CVOT) of these drugs has shown promising results in comparison of older OAD. The SGLT-2 Inhibitors are beneficial in heart failure while the GLP-1 RAs have a protective effect on atherosclerosis and stroke. Considering the above-mentioned facts, the combination of these two drugs is expected to have an additive effect on cardiovascular disease. Moreover, both of these agents are renoprotective and have a favourable effect on Non-Alcoholic Steato Hepatitis(NASH), hence expected to enhance cardio protection in high-risk cases. Although there is a paucity of randomised controlled trials (RCTs) in this area like DURATION-8, AWARD-10 and SUSTAIN-9, it suggests favourable outcomes more than the additive effect of these drugs discussed earlier. Furthermore, the meta-analysis of the pooled data from these trials, comparing cardiovascular benefits of the combination of SGLT-2 inhibitors and GLP-1 RA to SGLT-2 inhibitor alone, has also shown favourable effects, but at cost of the increased risk of hypoglycaemia. Finally, there is a difference in sequential start and the simultaneous start of these two drugs. The approach may vary depending upon the type of SGLT-2 inhibitors or GLP-1 RAs used and the patient characteristics. This presentation will give an overview to clinicians about the placement of SGLT-2 inhibitor and GLP-1 RA combination in high-risk Type 2 Diabetes patients, for treatment and prevention of cardiovascular disease.

Keywords: GLP1 Receptor Agonists, SGLT-2 Inhibitors, Cardio Protection, NASH





Daniel Lichtenstein

Hospital Ambroise Paré, Paris-West University, France

Biography

Daniel Lichtenstein is medical intensivist, Ambroise-Paré Hospital (Paris). Defined critical ultrasound since 1985 (Intensive Care Med 1991;19:353-355) describing diagnoses, immediate therapies, procedures (venous canulation, thoracentesis...) in a holistic approach, favoring simple equipment, one universal probe for whole body, emphasis on lung, simple cardiac sonography (and others), extrapolable to multiple disciplines (pediatry, pulmonology...), settings (ICU, austere areas...), patients (from bariatric to neonates). One textbook (1992, 2002, 2005, 2010, 2011, 2016 editions, Springer-Verlag), original articles including: BLUE-protocol (acute respiratory failure), FALLS-protocol (lung ultrasound in circulatory failure), SESAME-protocol (cardiac arrest), lung ultrasound in neonates. President of CEURF (training center at bedside in I.C.U.).

Lung ultrasound in the diagnosis of hemodynamic pulmonary edema`: the BLUE-protocol

Critical ultrasound was defined in our 1991 publication: "ultrasound for the critically ill, by the critical care physician, whole body ultrasound". This definition considers the lung, providing a new definition of ultrasound (a visual medicine). The BLUE-protocol is a fast protocol enabling immediate diagnosis of acute respiratory failure. We use a 1992, gray-scale unit, a microconvex probe. The BLUE-protocol analyzes ten signs: bat sign (pleural line), lung sliding, Alines (horizontal artifacts arising from pleural line), quad sign and sinusoid sign indicating pleural effusion, fractal sign and lung sign indicating lung consolidation, B-lines (particular comet-tail artifacts arising from the pleural line among seven criteria), and lung rockets (multiple B-lines, indicating interstitial syndrome), abolished lung-sliding with stratosphere sign, suggesting pneumothorax, lung point indicating pneumothorax. Pulmonary edema, pneumothorax, pulmonary embolism, pneumonia, COPD, asthma, were assessed using CT (gold standard) with sensitivity and specificity ranging from 90 to 100%1. The B-profile is the name given to the association of lung-rockets with lung-sliding, symmetrical at the anterior chest wall, without any anterior consolidation. The B-profile is 97% sensitive and 95% specific to hemodynamic pulmonary edema1. The A-line indicates non elevated PAOP2. The BLUEprotocol is a holistic protocol, because it allows estimation of left heart function in numerous settings (critically ill to ambulatory patient, neonates to seniors,

wealthy to scarse-resource areas). Shortly, derived products. The FALLS-protocol2 uses, in acute circulatory failure, the B-line as direct parameter of clinical volemia and endpoint for fluid therapy. Cardiac arrest3. CEURF trains since 1989 at the bedside in our ICU.





Deepti Bhandare

Advent Health Sebring, Florida, USA

Biography

Deepti Bhandare MD, FACC, RPVI, FASE is a Consultant Cardiologist at Advent Health Sebring, Florida. She completed her medical school in Goa Medical College, India. She completed Internal Medicine residency and Cardiology fellowship training in Wayne State University/Detroit Medical Centre in Michigan. She is the Vice Chair in the Department of Cardiology. She is the Director of the Echocardiography and Stress Lab, Heart Failure program and Cardiac Rehabilitation Centre. She is a member of the Board of The Directors of the Florida Chapter of American College of Cardiology. Her academic appointments include Associate Professor, Lake Erie College of Osteopathic Medicine and Chairman of the Clinical Competency Committee of ACGME accredited Internal Medicine Residency Program at Advent Health Sebring. She is the primary Investigator of Women's ischemia Trial to Reduce Events in Nonobstructive CAD [WARRIOR] study, which is a multicenter, prospective, randomized, blinded trial funded by the Department of Defense and endorsed by University of Florida, Gainesville. She is a member of American College of Cardiology and American Society of Echocardiography. She has also served as the President of Medical Staff. Dr Bhandare is a peer reviewer of ten Medline indexed journals. She has had multiple national and international presentations.

Cardiac Disorders associated with Cannabis: A Review of Literature

The leisure intake of cannabis has shortly amplified in the past years corresponding with its decriminalization and legalization. The natural cannabis has been substituted by synthetic cannabinoids and cannabimimetic in several formulae which are stronger. In spite of irresistible public insight of the safety of these substances, a growing quantity of grave cardiovascular adverse events are reported in sequential relation to recreational cannabis intake. A multifaceted interface between the active ingredients (particularly the major cannabinoid, D9tetrahydrocannabinol), and the endo-cannabinoid system, autonomic nervous system, as well as other receptor and non-receptor mediated pathways is noted. Tolerance to the properties of cannabis can develop on repetitive contact due to receptor desensitization. Effects of cannabis may be heightened or transformed by affiliated use of other illicit drugs or drug treatment indicated for treatment of cardiovascular diseases. Nonetheless, the recent cannabis epidemic would significantly increase to the worldwide problem of cardiovascular diseases.

Keywords: Cannabis, marijuana, cardiac side effects.





Ahmed N. Ghanem¹ and Khaled A. Ghanem²

Ahmed N. Ghanem, MD (Urol.), FRCS Ed, Retired Consultant Urologist & Independent InvestigatorMansoura University, Faculty of Medicine, Egypt

Khaled A. Ghanem, MBChB.Trust Grade F2, Endocrine.Royal Sussex County Hospital, Eastern Road, Brighton, U.K.

Biography

Dr, Ahmed Nasr Ghanem was educated in Egypt and qualified in 1974, Faculty of Medicine, Mansoura University, Egypt. He spent his internship at Mansoura University Hospitals. He gained all postgraduate experience in UK where he was promoted in posts up to the consultant level. He practiced as consultant Urologist in UK, Saudi Arabia, and Egypt. During his career life he attended many conferences and won the award of Princes Alexandra Memorial Award and reported over 100 articles of which he made important discoveries in medicine, physiology, urology, nephrology, cardiovascular and surgery. He discovered two new types of vascular shocks, proved that one physiological law is wrong and provided the replacement of G tube hydrodynamic. He resolved the puzzles of 3 clinical syndromes: the transurethral resection of the prostate (TURP) syndrome, the loin pain haematuria syndrome (LPHS) and the adult respiratory distress syndrome (ARDS). Now he is happily retired in Egypt dedicating his time to writing scientific medical articles and peer reviewing and editorial board member for many Journals. He is the Editor in Chief for Surgical Medicine Open Access Journal (SMOAJ).

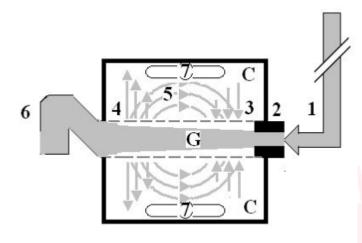


Figure shows a diagrammatic representation of the hydrodynamic of G tube based on G tubes and chamber C around it This 37-years old diagrammatic representation of the hydrodynamic of G tube in chamber C is based on several photographs. The G tube is the plastic tube with narrow inlet and pores in its wall built on a scale to capillary ultra-structure of precapillary sphincter and wide inter cellular cleft pores, and the chamber C around it is another bigger plastic tube to form the G-C apparatus. The chamber C represents the ISF space. The diagram represents a capillary-ISF unit that should replace Starling's law in every future physiology, medical and surgical textbooks, and added to chapters on hydrodynamics in physics textbooks. The numbers should read as follows:

- 1. The inflow pressure pushes fluid through the orifice
- 2. Creating fluid jet in the lumen of the G tube**.



The fluid jet creates negative side pressure gradient causing suction maximal over the proximal part of the G tube near the inlet that sucks fluid into lumen.
 The side pressure gradient turns positive pushing fluid out of lumen over the distal part maximally near the outlet.

- 5. Thus, the fluid around G tube inside C moves in magnetic field-like circulation (5)
- taking an opposite direction to lumen flow of G tube.

6. The inflow pressure 1 and orifice 2 induce the negative side pressure creating the dynamic G-C circulation phenomenon that is rapid, autonomous, and efficient in moving fluid and particles out from the G tube lumen at 4, irrigating C at 5, then sucking it back again at 3,

7. Maintaining net negative energy pressure inside chamber C.

**Note the shape of the fluid jet inside the G tube (Cone shaped), having a diameter of the inlet on right hand side and the diameter of the exit at left hand side (G tube diameter). I lost the photo on which the fluid jet was drawn, using tea leaves of fine and coarse sizes that runs in the centre of G tube leaving the outer zone near the wall of G tube clear. This may explain the finding in real capillary of the protein-free (and erythrocyte-free) sub-endothelial zone in the Glycocalyx paradigm. It was also noted that fine tea leaves exit the distal pores in small amount maintaining a higher concentration in the circulatory system than that in the C chamber- akin to plasma proteins.

The complete evidence that Starling's law for the capillary-interstitial fluid transfer is wrong: The correct replacement is the hydrodynamic of the porous orifice (G) tube.

Introduction and objective: To report hydrodynamic of a porous orifice (G) tube as replacement for the wrong Starling's law.

Material and methods: Hydrodynamics of the G tube, based on capillary ultra-structure, were studied, and contrasted to Poiseuille's tube. The effect of changing G tube orifice diameter, proximal pressure and distal pressure on the side pressure and chamber (C) pressure were evaluated. The physiological proof that the capillary works as G tube not Poiseuille's tube is provided.

Results: Hydrodynamics of the G tube showed that proximal, akin to arterial, pressure induces a negative side pressure gradient on the G tube wall, which is negative causing suction maximum near the inlet and turn positive near the exit causing filtration. This created the rapid, autonomous magnetic field-like fluid circulation phenomenon between G and C. The physiological evidence on the hind limb of sheep proves that the capillary works as G tube.

Conclusion: Hydrodynamic of the G tube challenges the role attributed to arterial pressure as a filtration force in Starling's law. A literature review shows that oncotic pressure does not work, and the law has failed to explain the capillary–ISF transfer. A concept based on the new hydrodynamic phenomenon of the G tube is proposed to replace Starling's law. A rapid autonomous dynamic magnetic field-like G–C circulation occurs. Factors which initiate, regulate, and affect G–C circulation, its physiological proof and relevance to clinical importance are given. A physiological evidence on capillary working as G tube not Poiseuille's tube is provided.



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e-Poster

CARDIOLOGY WEBINAR 2021



Pradissa Avia Emeralda¹, Dwi Laksono Adiputro²

¹General Practicioner - Lambung Mangkurat University

²Interventional Cardiologist - Department of Cardiology and Vascular Medicine, Faculty of Medicine, Lambung Mangkurat University – Ulin General Hospital, Banjarmasin, Indonesia

Correlation between Serum Creatinine and Hemoglobin Level in Chronic Kidney Disease Patient with Hypertension: Study on Pre-Hemodialysis Patient at RSUD Ulin Banjarmasin

Background. Chronic kidney disease (CKD) is a failure of kidney function due to structural abnormality that occurs for at least 3 months with or without the decrease in glomerular filtration rate (GFR) of less than 60 ml/min/1.73 m2. Hypertension is the leading cause of CKD and commonly found with prevalence ranges from 60% – 90% depends on the stage of CKD. People with CKD often experience anemia as the kidney function worsens. Meanwhile, it has been known that the increase of hemoglobin level will affect to the increase of systolic and diastolic blood pressure.

Objective. The purpose of this study was to analyze the correlation between serum creatinine and hemoglobin levels in CKD patients with hypertension at RSUD Ulin Banjarmasin.

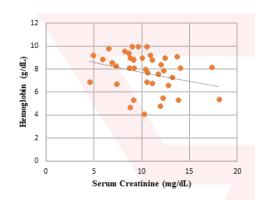
Methods. This study is analytical observational with cross sectional approach. The samples of this study consist of 40 pre-hemodialysis patients who meet the inclusion criteria at RSUD Ulin Banjarmasin between July – September 2019. The serum creatinine level and hemoglobin level were compared.

Results. The result of this study showed the mean level of serum creatinine was 10.31 mg/dL and the mean level of hemoglobin was 7.85 g/dL. The correlation between serum creatinine and hemoglobin level was tested using Spearman correlation test and showed p value =0.023 and r value =-0.318.

Conclusions. There is a significant and weak negative correlation between serum creatinine and hemoglobin level in CKD patients with hypertension at RSUD Ulin Banjarmasin.

Keywords: chronic kidney disease, hypertension, serum creatinine, hemoglobin, pre-hemodialysis

Diagram





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