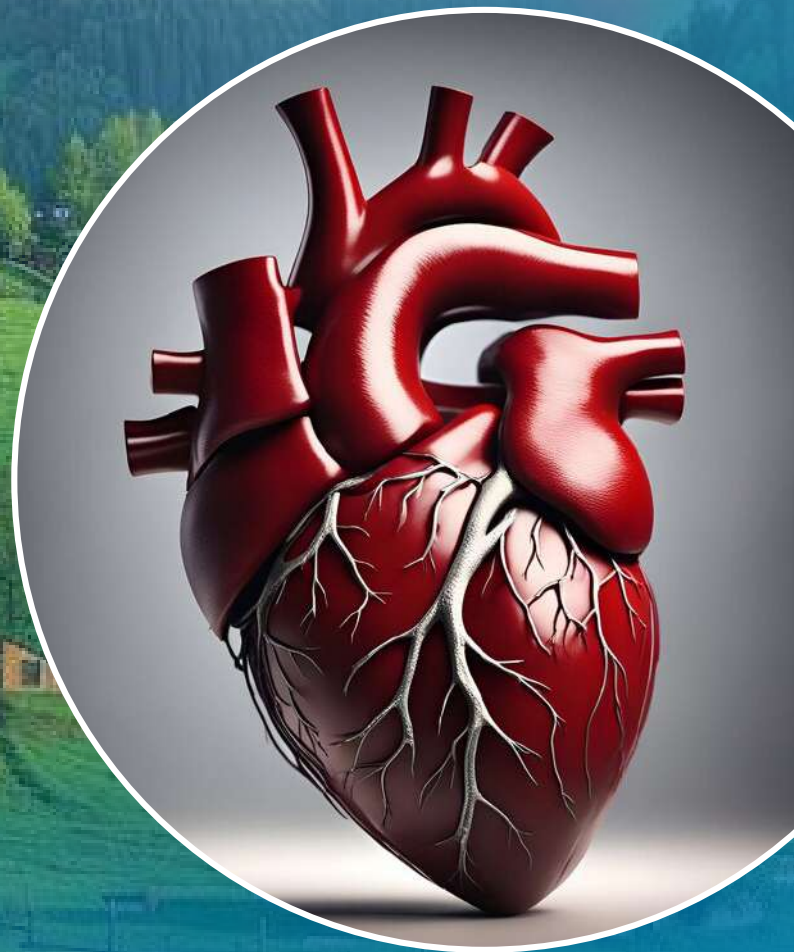


4th International

CARDIOLOGY CONGRESS

11-12
JUNE, 2025

**ZURICH,
SWITZERLAND**



Venue: Intercity Hotel Zurich Airport
Flughofstrasse 63, 8153 Rumlang, Switzerland

Day 1

June 11, 2025 | Zurich

Scientific Program

08:30–08:45: Registrations

08:45–09:00: Opening Ceremony

Keynote Presentations



09:00–09:40

Title: The Importance of Nutrigenetics and Epigenetics in Childhood Allergy

Gulsen Meral

Epigenetic Coaching, United Kingdom



09:40–10:20

Title: Management of Congestive Heart Failure - EP Overview

Terrance Khastgir

Integrus Baptist Medical Center, United States of America

Session Introduction

Session Chair: **Gulsen Meral, Epigenetic Coaching, United Kingdom**

Session Chair: **Terrance Khastgir, Integrus Baptist Medical Center, United States of America**

Tracks

Coronary Heart Diseases | Current research on Cardiology - Future Medicine |
Interventional Cardiology and Heart Surgery | Heart Failure and Cardiomyopathies |
Cardiac Rehabilitation | Cardiology Case Reports | AI in Cardiology: Innovations and
Implications | Importance of Nutrition Genetics | Pediatrics | Neonatology | Nutrition
and Baby Foods | Pediatric Obesity

Oral Presentations

10:20 – 10:40

Title: Assessment of child development using the ASQ-3 test
Tatyana ITOVA
University Hospital Medika Ruse, University of Ruse Ltd,
Bulgaria

10:40–11:00

Title: Right Coronary Artery-Superior Vena Cava Fistula with Myocardial Infarction due to Steal Syndrome: A rare case report
MD Anik Rahman
Calderdale and Huddersfield NHS Foundation Trust,
United Kingdom

Group Photo | Coffee Break 11:00-11:20 @ Foyer

11:20–11:40

Title: Neurocognitive Functioning in Paediatric Cancer: A Scoping Review
Deepa Awasthi
SS.Splint-O-Tist, India

11:40–12:00

Title: Project RoPeS, Routine Pulse oximetry screening in the newborn, East of England
Sajeev Job
Cambridge University Hospital NHS Trust, United Kingdom

12:00–12:20

Title: Gender difference in stemi patients undergoing primary PCI in Bangladesh: Insights from nami registry
Md. Kalimuddin
National Heart Foundation Hospital & Research Institute,
Bangladesh

Exhibitor

12:20–13:00

Exhibitor Interaction @GETEMED Medical and Information Technology AG, Germany

Lunch Break 13:00-14:00

Keynote Presentation



14:00–14:40

Title: Evaluation of patient satisfaction in medical consultations: Clinical care vs research protocol consultations
Cesar Javier Zaidman
CIPREC, Argentina

Oral Presentations

14:40–15:00

Title: Clinical outcomes of very elderly (Aged >85 Years) STEMI patients: Results from the nami registry

Mir Ishraquzzaman

National Heart Foundation Hospital & Research Institute,
Bangladesh

15:00:15:20

Title: Pediatric Neurology and Neurological Disorders

Khajik Yaqob

Oxford Brookes University, Jordan

Networking & Refreshments 15:20-15:40 @ Foyer

Poster Presentation

15:40–16:00

Title: Abrupt left coronary artery malperfusion secondary to acute type a aortic dissection after weaning from cardiopulmonary bypass: A case report

Myungsoo Jang

Ewha Womans University Seoul Hospital, South Korea

Panel Discussion & Certificate Falcitation
Day –1 Ends

Day 2

Scientific Program

09:00–09:15: Registrations

09:15–09:30: Opening Ceremony

June 12, 2025 | Zurich

Keynote Presentations



09:30–10:10

Title: Tracking the truth: Evaluating the accuracy of wearable fitness technology

Praveen Veerabhadrapa

Penn State University, United States of America



10:10–10:50

Title: The role of the use of Point of Care Ultrasound Scan, POCUS in the advanced resuscitation algorithm of the Neonate

Sajeev Job

Rosie Hospital, United Kingdom

Session Co-Chair: Praveen Veerabhadrapa, Penn State University, United States of America

Oral Presentations

10:50–11:10

Title: Treating Visual Perceptual deficits in children with Autism Spectrum Disorder: An OT Perspective

Deepa Awasthi

SS.Splint-O-Tist, India

Group Photo | Coffee Break 11:10–11:30 @ Foyer

11:30–11:50

Title: Personalized Nutrition for Vitamin D Deficiency: Integrating Genetics, Epigenetics, and Gut Health

Gulsen Meral

Epigenetic Coaching, United Kingdom

Poster Presentations

11:50–12:10

Title: Birth Defects among Children Born to Immigrant Mothers in Ontario, Canada. Impact of Exposure to Food Fortification in New Environment; A 20 year record-linkage study.

Mohammad Agha

University of Toronto, USA

12:10-12:30

Title: Parental refusal of childhood vaccinations
Priyanka Kaushal
University Hospitals Birmingham, UK

Lunch Break 12:30-13:30

13:30-13:50

Title: Prognosis and survival of patients with heart failure with mid-range ejection fraction (HFmrEF) in a developing country: A comparative study with global data
Luana Mendes dos Santos
University of Sao Paulo, Brazil

June 12, 2025 | Virtual Presentations

Virtual mode zoom meeting (GMT+2) Time in Zurich

15:00–15:20

Title: Music therapy combined with acupuncture therapy for children with Autism Spectrum Disorder
Zhen-huan LIU
Nanhai Maternity and Children's Hospital Affiliated Guangzhou University of Chinese Medicine, China

15:20–15:40

Title: Nutritional Resilience: How One Meal a Day by Samya India Transformed Child Health Outcomes
Namrata Nitin Bagle
Samya, India

15:40–16:00

Title: Coping and Adaptation Strategies in Congenital Heart Disease—A Qualitative Single Case Study
Sowmya G S
Martin Luther Christian University, India

16:00–16:20

Title: Cardiac health of children: Pediatric nurses concerns
Mary Anbarasi Johnson
CMC Vellore, India

16:20–16:40

Title: Effect of cardiac rehabilitation in post myocardial infarction patients: A tertiary care centre study
Suman Badhal
Vardhman Mahavir Medical College and Safdarjung Hospital, India

16:40–17:00

Title: Gender Bias and Girl Child's Status - Pediatric Nurses' Concern
Mary Anbarasi Johnson
CMC Vellore, India

17:00–17:20

Title: Case Report of RANBP2 Mutation and Familial Acute Necrotizing Encephalopathy
Santosh Kumar Mishra
Retired from S. N. D. T. Women's University, India

17:20–17:40	Title: Ways for vaccination safety during outreach Afraa talal barzanji MOH, Saudi Arabia
17:40–18:00	Title: Effects of Laser Acupuncture on anthropometric parameters and inflammatory markers in obese adolescents. Jehan Alsharnoubi Cairo University , Egypt
18:00–18:20	Title: Reinvigorating Initial Examination of the newborn through a sustained quality improvement approach: Enhanced efficiency and Innovative strategies at rural health centers in Lesotho Mathato Aumane Partners in Health, Lesotho
18:20–18:40	Title: Biomarkers of collagen metabolism and correlation with aorta strain in HIV aortopathy Pin Yi University of Witwatersrand, South Africa
18:40–19:00	Title: Noncompaction Myocardium and Puerperium: Case Report Beatriz Amaral Costa Savino Hospital de Clinicas of the State University of Campinas, Brazil
19:00–19:20	Title: Trends in incidence and in-hospital mortality among women with Acute Myocardial Infarction (AMI) with or without Spontaneous Coronary Artery Dissection (SCAD): A 6-year Nationwide Analysis (NIS 2016-2021) George Wuni Cooper University, United States
19:20–19:40	Title: Correlation of echo cg parameters in pts with breast cancer with the number of chemotherapy courses Rano Burkhanovna Alieva RSCPMCC, Uzbekistan
19:40–20:00	Title: Enoxaparin as alternative long-term therapy for mechanical mitral valves Kelsey Mendell New York Institute of Technology College of Osteopathic Medicine, USA

Panel Discussion





4th International

Cardiology Congress

June 11-12, 2025 | Zurich, Switzerland

HYBRID EVENT

EXHIBITOR

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Our Vision

With over 40 years of expertise, GETEMED Medizin- und Informationstechnik AG has been developing, manufacturing and selling medical devices in three core categories:

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4th International

Cardiology Congress

June 11-12, 2025 | Zurich, Switzerland

HYBRID EVENT

KEYNOTE PRESENTATIONS
DAY 1



Gulsen Meral

Epigenetic Coaching Founder, UK

The Importance of Nutrigenetics and Epigenetics in Childhood Allergy

Genetic and environmental factors play a significant role in the development of childhood allergies. Nutrigenetics and epigenetics research reveals how genetic variations and environmental influences, particularly diet and lifestyle, impact gene expression and contribute to allergic disease formation. The VDR (Vitamin D Receptor) gene is a key example in this area. Vitamin D interacts with VDR to regulate immune responses and is linked to allergies and autoimmune diseases. Epigenetic mechanisms, such as DNA methylation, can alter the expression of the VDR gene, affecting immune function and increasing the risk of developing allergic conditions. Studies have shown that environmental factors can lead to epigenetic changes in up to 10% of genes, which significantly influence allergy susceptibility. The role of the intestinal microbiome is also critical when considering allergy development. Recent advancements in omic technologies and a nutrigenomic perspective have uncovered epigenetic changes induced by the microbiota. These changes, influenced by environmental factors over time, can contribute to allergy risk. However, these variables can potentially be corrected or mitigated through personalized medical practices, including diet and medication adjustments, which can significantly impact an individual's health outcomes. When examining the connection between nutrigenomics and genetics, pathways such as one-carbon (1C) metabolism, transsulfuration, and methylation play a crucial role. These pathways are essential in regulating DNA expression, with 1C metabolism being particularly important for processes like homocysteine remethylation and the synthesis of purine and thymidine. Folate metabolism is a key component of this mechanism, providing 1C units for these biosynthetic processes and playing a vital role in cellular methylation. Disruptions in these pathways can lead to increased allergy risk, especially in individuals with genetic variations in these processes.

Biography:

Associate Professor Gülşen Meral graduated from Istanbul University Cerrahpasa School of Medicine in 1994. She became a specialist in paediatrics in 2001. She is Associate Professor in Pediatrics and worked as a specialist as well as deputy chief physician and chief physician at several hospitals. She was the Rector's advisor between 2019-2021 at the Northern Cyprus ITU. She is also an Acupuncture instructor. She worked as a Nutrigenetics graduate course and lecturer and gave undergraduate and graduate courses on child development. She has many national and international publications, and worked on editorial boards and as reviewers. She has a Master's Degree in Hospital Management. She has a Turkish language literature undergraduate education. She completed PhD program in Medical Genetics. In addition to her scientific achievements, she is ambitious about poetry and has 5 poetry books. She is the Founder of the Nutrigenetics and Epigenetics Association, and has memberships in the Green Crescent and Rumelia Association,

Istanbul Acupuncture Association, and International Society of Nutrigenetics & Nutrigenomics. She participated in the first and second International Epigenetic Congress as the president. She is still the organizer and educator of the Epigenetic Coaching Program. She is actively giving trainings on Nutrigenetic & Epigenetic Counselling to health professionals from all over the World as a certified CPD program. She continues research and training as the founder and manager of Epigenetic Coaching.



Terrance Khastgir

Integris Baptist Medical Center, United States of America

Management of Congestive Heart Failure - EP Overview

Hear failure is the number one diagnosis for hospital admissions and readmissions. This talk will focus on salient and recent developments in the treatment of heart failure. There is an effort to manage these patients as outpatients with remote monitoring tools. Attendees will take away a message about paradigm shift in management strategies and how it is improving the quality of life and life expectancy for patients with heart failure.

Biography:

Dr. Terrance Khastgir started his journey in medicine in India where he graduated from medical college with distinction and secured 3rd position in the University. He did his residency in Internal medicine from prestigious John's Hopkins and Sinai Hospital program in Baltimore Maryland. As a resident he participated in research projects and worked under the supervision of Chief of Cardiology. He presented two papers in World Electrophysiology Conference held in Washington DC. He got the best resident award for his outstanding performance as resident. While he was working as a resident he was appointed as Clinical Instructor in Medicine at John's Hopkins University.

He joined University of Oklahoma to pursue his fellowship in cardiovascular medicine and Electrophysiology. During his training he continued to work under the supervision of faculty and published original papers and case reports.

Upon graduation he joined Integris Baptist Medical Center which is a tertiary care center in Oklahoma City with robust cardiology services. He actively participated in research projects pertaining to device therapies including Leadless Pacemakers, ICDs, BIVICDS, Subcutaneous ICDs and Cardiac Contractility Modulation devices. He has been presenting his research work in various National and International Cardiology meetings. He has also worked as a consultant for several device companies. Over the years he has developed keen interest in device therapy for various cardiovascular diseases.



4th International

Cardiology Congress

June 11-12, 2025 | Zurich, Switzerland

HYBRID EVENT

SPEAKER PRESENTATIONS

DAY 1



Tatyana Itova

University of Ruse Angel Kanchev, Bulgaria University Hospital Medica Ruse, Bulgaria

Assessment of Child Development using the ASQ-3 test

The ASQ-3 is a comprehensive developmental screening instrument designed to monitor the development of infants and toddlers from birth to 66 months. The primary purpose of the ASQ-3 is to identify children who may be at risk for developmental delay or disability. The ASQ-3 helps early intervention professionals develop individualized plans to support children's growth and development. The aim of our study is to screen development using the ASQ-3 in children between 1 and 3 years of age, living in the Ruse region and attending daycare centers and kindergartens. Based on the obtained results, let's outline the guidelines for promoting the development of children with deviations. To develop individual plans to support the development of affected children. Then let's summarize the need for relevant specialists in stimulating child development in the region of Ruse, Republic of Bulgaria. We found that the test is easy to apply and is well accepted by parents, it is not difficult to answer. Paper or electronic filling options are equally suitable for work. We found no subjective ratings of children's skills compared between parent and teacher responses.

Biography:

Tatyana ITOVA has recognized specialties in pediatrics and neonatology, acquired at the Medical University of Varna, Bulgaria, has a PhD in Medicine in the field of Pediatrics at the Medical University of Pleven, Bulgaria. She heads the Department of Neonatology at Medica Ruse University Hospital. Dr. T. Itova's scientific interests are focused on monitoring risk newborns, neurodevelopment, neuromonitoring, ultrasound examination of the central nervous system.



MD. Anik Rahman*, Azeem Sheikh

Calderdale and Huddersfield NHS Foundation Trust, United Kingdom

Right coronary artery-superior vena cava fistula with myocardial infarction due to steal syndrome: A rare case report

Coronary artery fistulas are anomalous connections between a coronary artery and a cardiac chamber or great vessel. They are rare abnormalities with a reported incidence of 0.13-0.18% of patients undergoing coronary angiography. CAFs rarely manifest as myocardial infarction in the absence of thrombosis within the fistula.

A 59 years old Caucasian female presented to A&E with sudden severe squeezing central chest pain with radiation to left arm. She has background history of subarachnoid hemorrhage with clipped multiple aneurysm in different episodes. Examination did not show any significant findings like heart murmur. Initial Investigation revealed rising Troponin I from 222ng/l, 5 times normal (0/39ng/l) to 2125ng/l, 55 times normal, ECG showed sinus rhythm, RBBB and no ST changes. Bedside ECHO showed Hypokinetic inferior, inferoseptal and antero-septal walls. Good systolic function elsewhere, visual LVEF 50-54%. Coronary CT angiogram revealed dilated tortuous vasculature along the course of nodal branch of right coronary artery communicating with the superior vena cava adjacent to cavo-atrial junction. No significant plaque disease. Coronary angiogram revealed normal coronary artery. Very large diameter RCA (Visually 10-12 mm), large AVM from the mid RCA to SVC with small aneurysm at the origin. Dobutamine stress ECHO revealed maximum negative exercise ECHO for inducible ischemia. Patient was unable to undergo CMR due to cerebral clips of unknown source. Initially she had been treated for NSTEMI with DAPT without anticoagulant due to residual cerebral aneurysm. She had been given surgical options for further treatment but she opted for conservative management.

Most coronary artery fistula are silent and asymptomatic. In some rare cases symptoms of ischemic heart disease appear due to large shunt and steal of coronary circulation. The unique feature of this case includes diagnosis of myocardial infarction in the absence of thrombosis within fistula.

Keyword: CAF: Coronary Artery Fistula, AVM: Arterio-Venous Malformation, RCA: Right Coronary Artery, SVC: Superior Venacava, DAPT: Dual Anti-Platelet.

Biography:

Dr. MD Anik Rahman, have completed MRCP (UK) and working as speciality registrar in the department of acute medicine with cardiology rotation in Calderdale and Huddersfield NHS Foundation Trust, UK. Speciality Registrar, Acute Medicine, Calderdale and Huddersfield NHS Foundation Trust.



Deepa Awasthi

Founder and Consultant OT, SS.Splint-O-Tist, India

Neurocognitive Functioning in Paediatric Cancer: A Scoping Review

Pediatric cancer not only affects physical health but also influences various aspects of neurocognitive functioning, which are pivotal for a child's overall development. This scoping review aims to provide an overview of existing research in this domain, highlighting key themes and gaps in the literature.

The review systematically surveyed a wide range of sources, including peer-reviewed articles, conference proceedings to comprehensively capture the breadth of knowledge on neurocognitive functioning in paediatric cancer. By utilizing a scoping review methodology (based on the Prisma Guidelines for Scoping Reviews), a search strategy was formulated, where all search terms were transformed into a free term formulation. The study sought to map the existing evidence from their time of inception until July 2023 and elucidate potential avenues for future research and intervention.

Key findings reveal that neurocognitive functions, including attention, memory, executive functioning, and processing speed, are significantly impacted in paediatric cancer survivors. The etiology of these impairments is complex and multifaceted, stemming from a combination of disease-related factors, treatment modalities (such as chemotherapy, radiation, and surgery), and psychosocial variables.

In conclusion, the review identifies a notable gap in consistent assessment protocols and a lack of standardized tools for evaluating neurocognitive functioning in paediatric cancer patients. It underscores the critical importance of addressing neurocognitive functioning in the context of paediatric cancer and recommends further research that delve into the mechanisms underlying these impairments, long-term trajectories of cognitive functioning, and development of

evidence-based interventions aimed at enhancing cognitive outcomes for this vulnerable population.

Biography:

Dr. Deepa Awasthi is a Founder and Consultant OT at SS Splint-O-Tist, a Custom Splinting Consultancy in India. In 2023, she secured University Rank-1 position at her Postgraduation Examination in Developmental Disabilities. Her Scientific achievements include winning the Best Scientific Paper Presentation at the Annual Conference of Association of Neonatal therapist for two consecutive years of 2020 and 2021 as well as the Award for Best Paper Presentation in Pediatrics at Virtual OTICON 2021. She has consecutively served as a Speaker and Moderator at the 3rd and 4th Euro-Global Conference on Pediatrics & Neonatology along with the Pediatrics Conference 2022, held in Paris.



Sajeef Job

Cambridge University Hospital NHS Trust, United Kingdom

Project Ropes, Routine Pulse Oximetry Screening in the Newborn, East of England

Aim: Babies born in East of England to receive pulse oximetry screening aiding timely diagnosis of critical congenital heart disease.

Process:

1. Screening performed between 4 and 12 hours of life in hospital.
2. From 2 hours of age if home birth or standalone midwifery unit.

Existing screening programme for heart defects in NHS:

Antenatal ultrasound – between 2014 and 2017 in the UK, less than half (42%) of babies with heart defects that required intervention were identified before birth (2018 NICOR report).

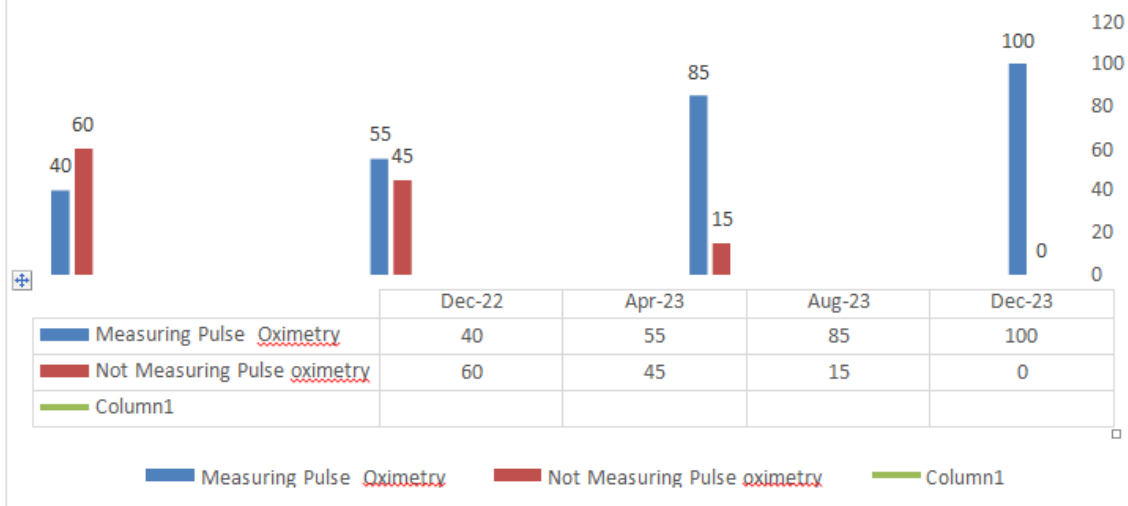
Postnatal examination – fails to identify up to 45% of babies with critical congenital heart defects and up to 30% are sent home without diagnosis.

Project Ropes: Commenced in late 2022 with the aim to establish a 100 % postnatal pulse oximetry screening in the East of England by 2024. Working closely with the Operational Division Network, ODN, and working with the support from each individual unit we formulated a way to implement pulse oximetry screening. This included effectively disseminating guidelines, organizing virtual meetings where we discussed the guideline and addressed questions and challenges and shared our experiences having had screening within our services for nearly 10 years. The project witnessed an uptake in pulse oximetry screening from 50 % to a 100 % in the East of England (two hospitals within one Trust have their education teams now training midwives to implement the screening programme).

**EoE Neonatal ODN and EoE
MCN Neonatal and Maternity
Units**

Norfolk and Norwich Hospital
Queen Elizabeth Hospital
Ipswich Hospital
James Paget Hospital
Luton & Dunstable Hospital
West Hertfordshire Hospitals NHS Trust
East & North Hertfordshire NHS Trust
Bedford Hospital
Addenbrooke's Hospital
Peterborough City Hospital
Princess Alexandra Hospital
Colchester Hospital
Broomfield Hospital
West Suffolk Hospital
Hinchingbrooke Hospital
Basildon Hospital
Southend Hospital
Milton Keynes Hospital

East of England, Regional percentage of maternity units
practising pulse Oximetry screening



Biography:

Sajeev Job a Neonatologist at Cambridge University Hospitals NHS Trust is also the Lead Clinician for the East of England Neonatal Operational Delivery Network (ODN), contributing towards neonatal care across 17 units in the region specializing also in retrieval medicine, neonatal and pediatric cardiology and point-of-care ultrasound. His roles encompass intensive care, neonatal retrieval, and cardiac assessments. An advocate for innovation he has also published over 13 papers in reputed journals and has been serving as an editorial board member of repute alongside also being a tutor with the European school of neonatology and previous tutor Royal College of Paediatrics.



Md Kalimuddin

National Heart Foundation Hospital & Research Institute,
Bangladesh

Gender difference in stemi patients undergoing primary PCI in Bangladesh: Insights from nami registry

Aims: Worldwide gender disparity in clinical outcome in patients with ST-segment elevation myocardial infarction (STEMI) exists. This study compared clinical outcome between male & female STEMI patients undergoing primary percutaneous coronary intervention (PCI) in Bangladesh over a decade.

Methods and Results: NAMI- registry was conducted in a tertiary cardiac care hospital of Bangladesh over a decade from January 2015 to December 2024. All STEMI patients who underwent primary PCI in our hospital were included in this study.

During this period 1854 STEMI patients underwent primary PCI and 1630 (87.9%) patients were male and 224 (12.1%) patients were female. Female were older than male (mean age- 56.89 ± 11.2 years vs 54.1 ± 11.3 years; $p=0.001$). Female were predominantly hypertensive (74.1% vs 59.8%; $p<0.001$), diabetic (67.4% vs 54.8%; $p<0.001$), and had CKD (53.6% vs 36.6%; $p<0.001$). The mean duration of chest pain (6.38 ± 4.7 hours vs 5.46 ± 4.3 hours; $p=0.003$) and mean door-to-balloon time (86.88 ± 39.7 vs 81.03 ± 35.6 ; $p=0.02$) were prolonged in female than male. Female were more prone to develop hematoma (6.2% vs 3.4%; $p=0.03$) and required blood transfusion (5.8% vs 2.1%; $p=0.001$). Female had higher in-hospital death (8.5% vs 4.2%; $p=0.004$).

Conclusions: Female were older, predominantly hypertensive, diabetic, and had more CKD than male. Female had higher in-hospital mortality than male.

Key words: Gender, Primary PCI, Outcome.

Biography:

Dr. Md. Kalimuddin is a cardiologist specializing in clinical and interventional cardiology, with expertise in pci for both simple and complex cases. He earned his doctor of medicine degree with honors from vitebsk medical institute, ussr, in 1995, followed by an md in cardiology from the national heart foundation hospital & research institute in 2011. Currently serving as an associate professor at the same institute, he has over two decades of experience. He has been actively involved as a co-investigator in several international research studies, including e-ultimaster, ifocus, ioptico study, master dapt, transform ii, ok study, ability diabetes global, ivi-diabetes trial.



4th International

Cardiology Congress

June 11-12, 2025 | Zurich, Switzerland

HYBRID EVENT

KEYNOTE PRESENTATION
DAY 1



Cesar J. Zaidman, MD*, Fernando P. Guerlloy, MD
Cardiovascular Research and Prevention Center, Argentina

Evaluation of patient satisfaction in medical consultations: Clinical care vs research protocol consultations

Hypothesis: Participants in clinical trials report a higher level of satisfaction with their involvement in a given clinical trial compared to when they attend a clinical care consultation.

Objective: To evaluate the perceived level of satisfaction among individuals attending a health consultation, comparing those who attend a clinical care consultation versus those who attend a clinical trial visit.

Materials and Methods: An anonymous and voluntary survey was conducted with 2,140 individuals aged between 32 and 83 years, who visited the research center between November 2023 and October 2024. Participants were asked about their levels of expectation, satisfaction, motivation/compliance, organization, and their perception of benefit. The survey was conducted either in person or through digital means. A scoring system from 1 to 4 was established.

Analysis: Mean Comparison Tests to compare the means of satisfaction, expectation, motivation, and organization between clinical care consultations and protocol consultations, mean comparison tests, such as the Student's t-test, were used.

Results of Mean Comparison Tests

Variable	Clinical Care Mean		Protocol Mean p-value
Satisfaction	2.8	3.8	< 0.001
Expectation	2.6	3.2	< 0.001
Motivation	2.4	3.2	< 0.001
Organization	1.9	3.9	< 0.001

Analysis of Perception of Benefit to analyze the perception of benefit, a ch results of the Perception of Benefit Analysis i-square test was utilized.

Perception of Benefit	Clinical Care	Protocol
Individual Benefit	1.08	0.6
Mixed Benefit	0.4	2.4
Collective Benefit	0.2	0.8

Results: The average level of expectations on a scale of 1 to 4 was 2.6 for clinical care consultations and 3.2 for protocol visits. The average level of satisfaction on a scale of 1 to 4 was 2.8 for clinical care and 3.8 for protocol. Regarding motivation, a score of 2.4 was obtained for clinical care and 3.2 for protocol. Organization was better perceived in protocol consultations (3.9) than in clinical care consultations (1.9). Participants in clinical care consultations were closer to an individual benefit perception (1.08), while those in protocol consultations leaned towards a mixed benefit (individual and collective) perception (2.4).

Conclusions: In summary, the study's results suggest that participants in protocol consultations experience higher satisfaction, expectation, motivation/compliance, and organization compared to participants in clinical care consultations. Furthermore, participants in protocol consultations perceive a greater mixed benefit (individual and collective) than those in clinical care consultations.

Key Words: Clinical trial, Clinical Care, Satisfaction, Benefit.

Biography:

Dr. Cesar Javier Zaidman is a cardiologist, graduated from UBA in 1987. He completed his specialization in cardiology at the Güemes Sanatorium. He worked in the Favaloro Foundation from 1990 to 2011. Since 2002, he has been involved in Clinical Research Protocols and has been the principal investigator in more than 100 clinical trials, covering different phases of research. He founded CIPREC in 2005, where he continues his work as President. In 2008 he obtained the certification of International Clinical Researcher (CPI), granted by the ACRP.



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HYBRID EVENT

SPEAKER PRESENTATIONS
DAY 1



Mir Ishraquzzaman

National Heart Foundation Hospital & Research Institute, Bangladesh

Clinical outcomes of very elderly (aged >85 years) stemi patients: Results from the nami registry

Aims: Little is known regarding clinical outcome of very elderly patients with ST-segment elevation myocardial infarction (STEMI). The aim of this study was to compare clinical outcomes between very elderly patients (aged >85 years) and non-very-elderly patients (aged ≤85 years) with STEMI over a decade.

Methods and Results: The NAMI registry was conducted at a tertiary cardiac care hospital in Bangladesh from January 2015 to December 2024, spanning 10 years. All consecutive STEMI patients admitted to our hospital were included in the study. The clinical outcomes of very elderly and non-very-elderly patients were compared.

A total of 14233 STEMI patients were included in this study, 135 (0.9%) patients were very elderly and 14098 (94.3%) were non-very-elderly. Many of very elderly patients were female (25.9% vs 13.8%; $p<0.001$). Very elderly patients had significantly more chronic kidney disease (97.0% vs 46.3%; $p<0.001$). Non-very-elderly patients were predominantly smokers (52.4% vs 34.1%; $p<0.001$); obese (35.1% vs 20.0%; $p<0.001$); and diabetic (53.4% vs 40.0%; $p=0.002$). Regarding CAG, vessel score did not differ significantly. Very-elderly patients received more medical therapy (67.4% vs 37.0%; $p<0.001$) and non-very-elderly patients received more thrombolytic therapy only (18.5% vs 8.1%; $p=0.002$) & underwent more pharmaco-invasive therapy (10.9% vs 5.9%; $p=0.06$), PCI (20.6% vs 9.6%; $p=0.002$), and primary PCI (13.1% vs 8.9%; $p=0.15$) than non-very-elderly patients. Very elderly patients had higher in-hospital complications: acute left ventricular failure (50.4% vs 29.6%; $p<0.001$); cardiogenic shock (23.0% vs 13.5%; $p=0.002$); conduction disturbance (18.5% vs 10.0%; $p=0.001$) arrhythmias (14.1% vs 8.2%; $p=0.01$) and in-hospital death (11.1% vs 4.1%; $p<0.001$) than non-very-elderly patients.

Conclusions: Very elderly patients had a higher prevalence of chronic kidney disease, were less likely to undergo invasive therapies, and had worse clinical outcomes.

Key words: Very elderly, STEMI, outcome.

Biography:

Dr. Mir Ishraquzzaman works as a Consultant Cardiologist and the Clinical Deputy Director at the National Heart Foundation Hospital and Research Institute. He earned his MD from Zaporizhzhia Medical University, Ukraine, in 1998, and later did MRCP (UK) in 2014, giving him a strong foundation in cardiovascular medicine. With over 20 years of clinical experience, his primary focus is on hypertension and heart failure management. He is proud to lead the Cardiac Wellness Center, where he runs a comprehensive cardiac rehabilitation program, alongside specialized hypertension (HTN) and heart failure clinics. His approach consistently uses evidence-based practice, preventive strategies, and patient-centered care. Beyond his clinical work, he is actively involved in shaping cardiology standards in Bangladesh. He serves as a member of the Writing Committee for the Hypertension Guideline, helping create national treatment guidelines and protocols. Additionally, he is a Co-Investigator for the National ACS Registry Project, supporting important research on acute coronary syndromes. His commitment to sharing knowledge is reflected in multiple publications in peer-reviewed journals. His main goal is to make sure patients get the best care for their heart health.

Khajik Yaqob

Oxford Brookes University, Jordan

Pediatric Neurology and Neurological Disorders

Current investigations have increasingly demonstrated that the insight of direct gaze from others significantly influences a range of attention and cognitive processes. On the other hand, few research articles are found to explore the emotional consequence of eye contact. This piece of writing delineates a review of empirical research investigating the impact of gaze direction on the affective responses of influencer. The focal point is on studies conducted under meticulously controlled laboratory conditions, where contextual variables that may influence the perceiver's affecting responses have been systematically managed. Two relevant themes emerge from this review. First of all, explicit affective evaluations regarding the perception of direct versus averted gaze have yielded conflicting results; whilst certain studies account enhanced positive subjective feelings associated with direct gaze, others suggest an differing tendency. This deviation in results may stem from variations among studies in the extent to which direct gaze stimuli are capable of eliciting feelings of self-involvement. Secondly, when examining implicit measures, the findings are more homogeneous: research consistently indicates that direct gaze enhances affective stimulation and, crucially, that eye contact automatically elicits a positively valenced affective reply. This appraisal also discusses possible psychological mechanisms underlying the positive emotional reactions provoked by eye contact.



4th International

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HYBRID EVENT

POSTER PRESENTATION
DAY 1



Myungsoo Jang^{1*}, Sang Beom Nam, Younjin Kim, Suk-Won Song²

¹Department of anesthesia and pain medicine, Ewha Womans University Seoul Hospital, Seoul, Korea

²Department of cardiothoracic surgery, Ewha Womans University Seoul Hospital, Seoul, Korea

Abrupt left coronary artery malperfusion secondary to acute type a aortic dissection after weaning from cardiopulmonary bypass: A case report

Introduction: Acute Stanford type A aortic dissection (ATAAD) complicated by coronary artery involvement is considered rare but life-threatening because this can cause coronary artery malperfusion which results in acute myocardial infarction. In particular, left coronary artery malperfusion can bring worse outcomes than right coronary artery malperfusion, but there are few reports of left coronary artery involvement secondary to ATAAD.

Case presentation: We present a case of a woman who got emergency open heart surgery due to ATAAD. After the hemiarch replacement, the first weaning from bypass was relatively smooth. However, as soon as starting infusion protamine, we found out sudden regional wall motion abnormality at the diffuse anteroseptal to the lateral wall on echocardiography and ST depression on leads II and V5 electrocardiogram after several ventricular fibrillation. We recognized by echocardiography that that intimal dissection flap extended to the left coronary artery ostium and dynamically obstructed left coronary artery blood flow, because the true lumen collapsed dynamically during the diastolic phase. Upon re-establishing bypass, proximal aortic false lumen was obliterated with bio glue again. Finally, smooth weaning from bypass proceeded. Finally, the blood flow to the left coronary artery ostium was good, and the wall motion abnormality was improved.

Conclusion: Our report suggests the importance of the degree of myocardial damage caused by coronary artery malperfusion which is a major predictor of patient outcome. However, no exact treatment directions or guidelines for coronary artery malperfusion secondary to ATAAD are available so far. We emphasize that we should not neglect any signs indicative of coronary artery malperfusion appear such as changes of electrocardiogram and echocardiography. Moreover, our report contributes to a profound understanding among clinicians regarding the necessity of practical treatment guidelines about coronary artery malperfusion due to ATAAD based on various clinical experiences and studies.

Keywords: Acute Stanford type A aortic dissection, Coronary artery Involvement, Coronary artery malperfusion, Left coronary artery malperfusion.

Biography:

Myungsoo Jang works at the Ewha Womans University Seoul Hospital, Seoul, South Korea as an anesthesiologist of cardiothoracic surgery. Since 2015, firstly being trained for cardiothoracic anesthesia as a fellow at the Seoul Asan hospital, Myungsoo Jang has been experienced lots of cases of heart diseases. Also, she is working with cardiologists because many interventions need cooperation with cardiothoracic anesthesiologists. In fact, her husband is a cardiologist, and she always communicates with her husband about cases they experienced. Therefore, it is very honorable if Myungsoo Jang can attend the cardiology meeting.



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KEYNOTE PRESENTATIONS
DAY 2



Praveen Veerabhadrappe

Penn State University, United States of America

Tracking the truth: Evaluating the accuracy of wearable fitness technology

Activity trackers, often referred to as fitness trackers or wearable health devices, have transformed how individuals monitor their physical activity and overall well-being. Devices from leading brands such as Fitbit, Apple Watch, and Garmin are equipped with sensors that track a range of health metrics—including steps taken, heart rate, calories burned, sleep patterns, and even blood oxygen levels. These tools offer an accessible and interactive way for the general public to stay active and improve their health. Their value, however, is even greater for individuals managing chronic health conditions.

Chronic illnesses—such as diabetes, high blood pressure, heart disease, chronic obstructive pulmonary disease (COPD), and arthritis—require ongoing monitoring and self-care to prevent complications and support a better quality of life. In this context, activity trackers can serve as valuable allies by delivering real-time insights and long-term trends in health-related behaviors. This data empowers users to make informed choices about their lifestyles and medical treatments.

One of the key advantages of these devices is their ability to monitor daily physical activity. Regular movement is essential for managing chronic conditions. For instance, moderate exercise can improve insulin sensitivity in people with type 2 diabetes, reduce blood pressure in those with hypertension, and support better respiratory function in individuals with COPD. By using activity trackers, patients gain a clearer picture of their daily activity levels and can set achievable goals to gradually increase their physical engagement. This type of ongoing feedback fosters accountability and motivation, which are critical for lasting behavior change.

In summary, activity trackers go beyond simple fitness monitoring—they are impactful tools for promoting better health, particularly among those with chronic conditions. By tracking health data, encouraging consistent activity, aiding communication with healthcare professionals, and helping identify potential issues early, these devices can significantly enhance disease management and overall quality of life. As technology continues to evolve, their influence within the healthcare landscape is likely to grow even further.

Biography:

Dr. Praveen Veerabhadrappe (Dr. V) is passionate about research, innovation and inspiring the next generation of leaders (students) to further scientific research. Dr. Veerabhadrappe considers his most important work to be on the longterm effects of exercise training on the cardio-metabolic risk factors, prevalence of masked hypertension and blood pressure variability, which has earned international recognition. Currently, his research focuses on incorporating wearable technology to enhance physical activity and improve health. Dr. Veerabhadrappe's research group studies the cardio-metabolic effects of sedentary behavior using novel devices such as Actigraph, Fitbit, Vibrante and Apple

Watch. His research students have presented their research at local, regional and national professional conferences. Dr. Veerabhadrapa is also recognized internationally with many awards. He has published 35 manuscripts and more than 60 abstracts in peer-reviewed journals. He serves on the editorial board and as a peer-reviewer for many high-impact journals in science and medicine, and is the founding member of the New Investigator Network of The International Society of Hypertension. Dr. Veerabhadrapa has organized and moderated many national and international symposia, liaising with the American Heart Association and the European Society of Hypertension.



Sajeev Job

Rosie Hospital, United Kingdom

The role of the use of Point of Care Ultrasound Scan, POCUS in the advanced resuscitation algorithm of the neonate

Aim: A cardiac 'Deteriorating Neonate Guideline, DNG' as a reference guide in neonatal resuscitation

Existing resuscitation guideline: Newborn life support resuscitation UK guideline does not mention a 'Deteriorating Neonate Guideline'

Abstract: A 'deteriorating' neonate is the term used to define the acute clinical deterioration in an otherwise clinically stable neonate. It is of primary importance that at the onset of a clinical deterioration the etiology is differentiated between an actual systemic deterioration versus any equipment failure.

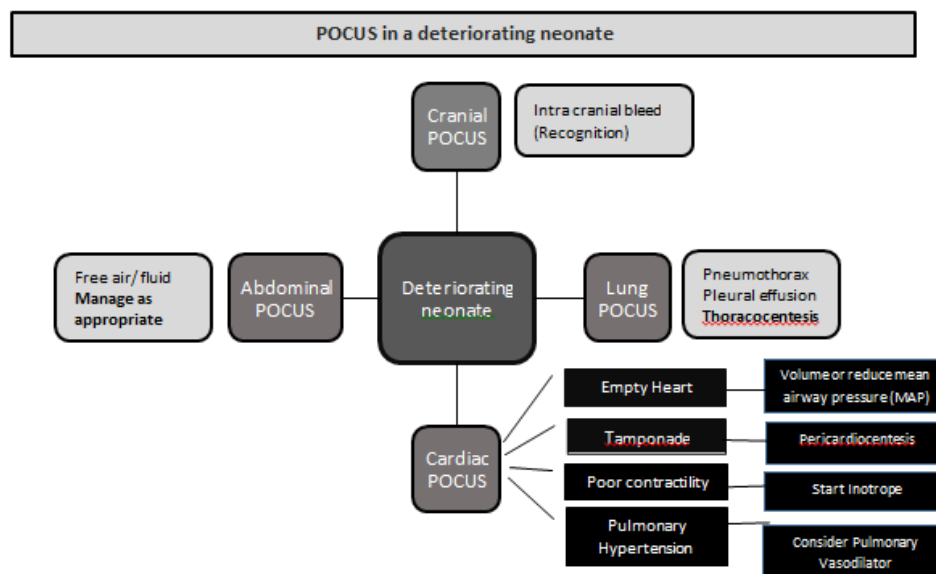
The introduction of POCUS would enable the recognition of a correctable etiology along with the initiation of a timely intervention to enable the best possible outcome for the neonate. Its role therefore as a diagnostic tool is undisputed. However, it is imperative that the neonatal resuscitation UK guideline is always followed in a resuscitation scenario with the recognition that the cardiac POCUS is only an adjunct in the management. Any cardiac POCUS should subsequently always be followed up by a full and complete segmental sequential cardiac echocardiography study.

The cardiac 'Deteriorating Neonate Guideline, DNG' therefore looks at being an adjunct reference guide with its clinical application not being limited by either gestation or weight in a neonate. The guideline can be used as appropriate in any neonatal emergency.

Note: This table is to be used only as an adjunct to the current recommendations for neonatal resuscitation in a neonate unresponsive to standard resuscitation steps or in a neonate where the underlying cause for the clinical deterioration remains unclear. (244 words)

Table: Available systemic POCUS in a deteriorating neonate

System	Bedside POCUS in a deteriorating neonate
Cranial Ultrasound	Assessment for intraventricular hemorrhage
Thoracic Ultrasound	Assessment for a pneumothorax or pleural effusion
Cardiac Ultrasound	Assessment for a cardiac tamponade, filling, function & pulmonary hypertension
Abdominal Ultrasound	Assessment for abdominal air or fluid



Biography:

Sajeev Job a Neonatologist at Cambridge University Hospitals NHS Trust is also the Lead Clinician for the East of England Neonatal Operational Delivery Network (ODN), contributing towards neonatal care across 17 units in the region specializing also in retrieval medicine, neonatal and pediatric cardiology and point-of-care ultrasound. His roles encompass intensive care, neonatal retrieval, and cardiac assessments. An advocate for innovation he has also published over 13 papers in reputed journals and has been serving as an editorial board member of repute alongside also being a tutor with the European school of neonatology and previous tutor Royal College of Paediatrics.



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SPEAKER PRESENTATIONS
DAY 2



Deepa Awasthi

Founder and Consultant OT, SS.Splint-O-Tist, India

Treating Visual Perceptual deficits in children with Autism Spectrum Disorder. An OT Perspective

Children with Autism Spectrum Disorder (ASD) frequently experience visual perceptual deficits, which can adversely affect their daily functioning, academic performance, and social interactions. Occupational Therapy (OT) offers targeted interventions to address these challenges by enhancing visual-motor integration and perceptual processing skills. This paper explores the efficacy of various OT approaches, including kinesthetic-based perceptual integrative games, sensory integration therapy, and vision therapy, in ameliorating visual perceptual deficits among children with ASD.

Empirical evidence indicates that interventions such as kinesthetic-based perceptual integrative games can significantly improve visual perception and academic performance in this population.

Additionally, vision therapy has shown promise in enhancing visual-spatial skills and motor- reduced visual perception. The paper also discusses the underlying neurodevelopmental factors contributing to visual perceptual abnormalities in ASD and emphasizes the importance of individualized, evidence-based OT interventions. By integrating these therapeutic strategies, occupational therapists can play a pivotal role in improving the visual perceptual abilities and overall quality of life for children with ASD.

Biography:

Dr. Deepa Awasthi is a Founder and Consultant OT at SS Splint-O-Tist, a Custom Splinting Consultancy in India. In 2023, she secured University Rank-1 position at her Postgraduation Examination in Developmental Disabilities. Her Scientific achievements include winning the Best Scientific Paper Presentation at the Annual Conference of Association of Neonatal therapist for two consecutive years of 2020 and 2021 as well as the Award for Best Paper Presentation in Pediatrics at Virtual OTICON 2021. She has consecutively served as a Speaker and Moderator at the 3rd and 4th Euro-Global Conference on Pediatrics & Neonatology along with the Pediatrics Conference 2022, held in Paris.



Gulsen Meral

Epigenetic Coaching, United Kingdom

Personalized Nutrition for Vitamin D Deficiency: Integrating Genetics, Epigenetics, and Gut Health

Vitamin D deficiency remains a major global health concern. One of the most critical functions of vitamin D is its role in mediating approximately 3% of the body's epigenetic modifications. A growing body of evidence links vitamin D deficiency to epigenetically influenced diseases, including autoimmune disorders, diabetes, cardiovascular diseases, allergies, and depression.

Vitamin D's role in immune modulation involves a variety of molecular mechanisms. Of particular importance are coactivators such as histone acetyltransferases (HATs), which facilitate the acetylation of histones upon ligand binding to the 1,25-dihydroxyvitamin D (1,25-D) VDR/RXR complex.

The variability in vitamin D status is influenced by both environmental and genetic factors. Genetic studies have highlighted the significance of genes such as GC, DHCR1, CYP2R1, CYP24A1, and VDR in vitamin D metabolism. Dietary factors also contribute to this variability; for instance, CYP2R1 and CYP27A1 are involved in vitamin D metabolism under conditions such as high-fat diets and glutathione deficiency. Furthermore, gene-specific epigenetic modifications have been reported, such as hypermethylation of the CYP27B1 gene (encoding 1- α -hydroxylase) and hypomethylation of CYP24A1.

In relation to the microbiota, vitamin D and its receptor (VDR) play a key role in regulating antimicrobial peptide expression and maintaining the integrity of the intestinal mucosal barrier. Microbiota not only influence vitamin D levels but also modulate VDR expression and localization. Probiotic therapy has been shown to enhance VDR expression and activity, potentially alleviating intestinal inflammation.

Studies have demonstrated that human colonic epithelial cells treated with probiotic strains such as *Lactobacillus rhamnosus* GG and *Lactobacillus plantarum*, as well as *L. reuteri* NCIMB 30242, exhibit increased VDR expression. These strains may elevate serum 25(OH)D levels by boosting intraluminal lactic acid production or by enhancing the synthesis of 7-dehydrocholesterol (7-DHC).

In a study we conducted, we observed that the combined use of vitamin D and probiotics resulted in significantly higher serum vitamin D levels compared to the administration of either agent alone.

In conclusion, both nutrigenetic and epigenetic mechanisms are deeply involved in vitamin D metabolism. Therefore, probiotic supplementation and nutrigenetically informed dietary strategies hold great promise in the management and treatment of vitamin D deficiency.

Biography:

Associate Professor Gülsen Meral graduated from Istanbul University Cerrahpaşa School of Medicine in 1994. She became a specialist in paediatrics in 2001. She is Associate Professor in Pediatrics and worked as a specialist as well as deputy chief physician and chief physician at several hospitals. She was the Rector's advisor between 2019-2021 at the Northern Cyprus ITU. She is also an Acupuncture instructor. She worked as a Nutrigenetics graduate course and lecturer and gave undergraduate and graduate courses on child development. She has many national and international publications, and worked on editorial boards and as reviewers. She has a Master's Degree in Hospital Management. She has a Turkish language literature undergraduate education. She completed PhD program in Medical Genetics. In addition to her scientific achievements, she is ambitious about poetry and has 5 poetry books. She is the Founder of the Nutrigenetics and Epigenetics Association, and has memberships in the Green Crescent and Rumelia Association, Istanbul Acupuncture Association, and International Society of Nutrigenetics & Nutrigenomics. She participated in the first and second International Epigenetic Congress as the president. She is still the organizer and educator of the Epigenetic Coaching Program. She is actively giving trainings on Nutrigenetic & Epigenetic Counselling to health professionals from all over the World as a certified CPD program. She continues research and training as the founder and manager of Epigenetic Coaching.



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POSTER PRESENTATIONS
DAY 2



**Mohammad M. Agha, Richard H. Glazier,
Rahim Moineddin**
University of Toronto, USA

Birth Defects among Children Born to Immigrant Mothers in Ontario, Canada.

Impact of Exposure to Food Fortification in New Environment; A 20 year record-linkage study

Background: Birth defects remains a health issue with substantial international variation. With increasing rates of global migration, it is important to explore the role of immigration and the impact of new environments, especially exposure to food fortification with folic acid, on birth defect prevalence among immigrant mothers.

Methods: Children born during 1995-2014 were identified and linked to their mothers. Data on country of origin and arrival date were identified for immigrant mothers. Birth defects were identified through medical records of children during first year of life. Prevalence of defects were compared among children born to immigrant and non-immigrant mothers.

Results: The rate of birth defects among some immigrant mothers was higher than Canadian mothers. Rates were 12 to 27% higher among mothers arriving from Sudan, Jamaica, Bangladesh and Afghanistan.

Immigrant mothers who gave birth before food fortification had higher rates of abnormalities than Canadian mothers, but after 2000, there were lower rate of abnormalities among immigrant mothers. After food fortification, the rate of abnormalities among immigrant mothers was lower than Canadian mothers for all birth orders.

Interpretation: Comparing the birth defect rate among immigrant and non-immigrant mothers at one point in time could be misleading. Higher rates of birth anomalies among immigrant mothers who arrived before food fortification could be due to lack of access to folic acid in their country of origin. After food fortification, immigrant mothers likely had similar exposure to folic acid as Canadian mothers and their rate of birth abnormalities was the same or lower.

Priyanka Kaushal

University Hospitals Birmingham, UK

Parental refusal of childhood vaccinations

Parental refusal of childhood vaccinations is an increasingly significant public health concern, contributing to the resurgence of vaccine-preventable diseases globally particularly measles in 2023 and 2024. This complex phenomenon includes issues of parental rights, child welfare, and public health policy. The objectives of this literature review were to explore why parents refuse vaccinations and how healthcare practitioners (HCPs) can alleviate parents' concerns, decrease barriers to access and improve childhood vaccination.

A comprehensive search was conducted using PubMed, using the terms 'parental refusal of childhood vaccinations' which generated 314 results; 171 of which were accessible full texts. Other terms used were 'immunisations' and 'vaccine hesitancy'.

Five major factors contributing to parental vaccine refusal were identified: the MMR-autism controversy, religion, education, safety concerns, and media influence. Evidence shows the COVID-19 pandemic has further complicated perceptions of vaccine safety and efficacy. The Human Papillomavirus vaccine (HPV) also faces unique challenges due to the stigma and age of administration as demonstrated by studies in Japan. Barriers to vaccination access include limited appointments, varying education levels and limited access to evidence-based information.

Strategies to address vaccine hesitancy include fostering non-confrontational conversations between HCPs and parents, adopting a patient-centred care approach, providing unbiased information through accessible materials and improving parental education. Removing barriers to access incorporates offering flexible appointments and utilising IT systems for vaccination tracking.

In conclusion, addressing parental vaccine refusal requires a multifaceted approach that acknowledges the influence of media, misconceptions, and cultural sensitivities on healthcare decisions. Implementing targeted strategies and fostering effective communication between HCPs and parents, can lead to significant improvements in childhood vaccination rates, ultimately improving public health outcomes. It would be beneficial to conduct a meta-analysis for a more methodical approach in exploring effective methods to improve vaccine uptake.

Biography:

Priyanka Kaushal completed her MBChB Medicine degree at the University of Manchester in 2024. She completed an intercalated degree in MSc Healthcare Ethics and Law at the University of Manchester in 2022. Priyanka is currently a foundation year 1 doctor at Queen Elizabeth Birmingham in Birmingham, UK. She has a keen interest in paediatrics and has been involved in projects and leading a paediatric university conference.



Luana Mendes dos Santos
University of Sao Paulo, Brazil

Prognosis and survival of patients with heart failure with mid-range ejection fraction (HFmrEF) in a developing country: A comparative study with global data

Background: Heart failure with mid-range ejection fraction (HFmrEF; LVEF 41–49%) remains an understudied entity, particularly in low- and middle-income countries. Global evidence suggests intermediate prognosis between HFrEF and HFpEF; however, regional variations may impact survival.

Objective: To assess the long-term survival of patients with HFmrEF in a Brazilian tertiary center and compare it to international cohorts.

Methods: We performed a retrospective cohort study including 83 patients diagnosed with HFmrEF between 2018 and 2023. Clinical, demographic, and etiological data were collected. Overall survival was estimated using Kaplan-Meier analysis. Results were compared with international studies identified via a structured literature review (PubMed, SciELO, LILACS). Cox regression was used to explore factors associated with mortality.

Results: The cohort had a mean age of 53 ± 12.5 years, with male predominance (73.5%). Hypertension was the leading etiology (37.5%), contrasting with ischemic causes reported in developed countries. The 5-year survival rate for HFmrEF was 55.4% (mean survival 3.87 years; 95% CI: 45.7%–67.2%), significantly lower than in global registries such as GWTG-HF (USA, ~70%) and CHARM (Europe, ~76%). Notably, Brazilian patients were younger than those in international studies (53 vs. 66–72 years). In contrast, patients with HFrEF in the same center had a higher survival rate (82.7%).

Conclusion: In this Brazilian cohort, HFmrEF patients exhibited a lower survival rate than those reported in high-income countries, despite being significantly younger. The predominance of hypertensive etiology, limited access to optimized therapy, and systemic healthcare disparities may contribute to this unfavorable prognosis. These findings underscore the need for tailored strategies to improve HF outcomes in resource-constrained settings.

Keywords: Heart failure, mid-range ejection fraction, survival, hypertension, risk factors.



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HYBRID EVENT

Zoom Meeting (GMT+2) Time in Zurich

VIRTUAL PRESENTATIONS
DAY 2



Zhen-huan LIU

Nanhai Maternity and Children's Hospital Affiliated Guangzhou University of Chinese Medicine CHINA

Music therapy combined with acupuncture therapy for children with autism spectrum disorder

Objective: To verify the efficacy of the Psychological Action Rehabilitation on autism treated with Chinese Medicine

Music Therapy combined with acupuncture therapy.

Methods: A total of 70 cases with autism spectrum disorder (ASD) were divided into an observation group 30 cases and a control group 40 cases. In observation group, the cases were treated with Chinese Medicine Music Therapy combined with acupuncture therapy. The control group was treated with structured education. Clancy Autism Behavior Scale Childhood Autism Behavior Scale (CARS) Autism Behavior Checklist (ABC) and Gesell Development Scale (social adaptive behaviors personal social behaviors and language development) were adopted to assess the scores before and after treatment. The results were analyzed by SPSS13.0 software.

Results: One During the same time treatment, the observation group's efficacy on enhancing the intelligence and language ability is apparently better than the control group. Two: In observation, between the group aged from 4to 6 years and the group aged from 2 to 3 years, the differences in Clancy Autism Behavior Scale, ABC and social adaptive development scale are not obvious, which explains that Chinese Medicine Music Therapy combined with acupuncture and therapy can improve autism spectrum disorder children's behavior and intelligence level regardless of age. Three: As for the scores of language in Gesell scale in the observation group, there were significant differences before and after treatment, which explains that the observation group's therapy can enhance autism spectrum disorder children's language skill and is better than the control group's therapy.

Conclusion: Chinese Medicine Music Therapy combined with acupuncture therapy can significantly improve the efficacy on autism spectrum disorder , effectively relieve child autism symptoms and enhance the intelligence and language expression ability .

Keywords: Autism spectrum disorder; Chinese Medicine Music therapy; Acupuncture

Biography:

Zhenhuan LIU professor of pediatrics, Pediatric acupuncturist Ph.D. tutor. He has been engaged in pediatric clinical and child rehabilitation for 40 years. Led the rehabilitation team to treat more than 40,000 cases of children with intellectual disability, cerebral palsy and autism from China and more than 20 countries, More than 26800 Childrens deformity returned to school and society and became self-sufficient. The rehabilitation effect ranks the international advanced level. Vice-chairman of Rehabilitation professional committee children with cerebral palsy, World Federation of Chinese Medicine Societies. Visiting Professor of Chinese University of Hong Kong in recent 10 years. .He is most famous pediatric neurological and rehabilitation specialists in integrated traditional Chinese and Western medicine in China. He has edited 10 books. He has published 268 papers in international and Chinese medical journals.



Namrata Nitin Bagle
Samya, India

Nutritional Resilience: How One Meal a Day by Samya India Transformed Child Health Outcomes

Malnutrition remains a critical public health challenge, especially among children in underserved communities. The COVID-19 pandemic exacerbated food insecurity and increased the need for nutritional support. In response, Sāmya India, an NGO committed to uplifting underprivileged populations, initiated a nutritional intervention. What began as a program providing emergency meals during the pandemic evolved into a targeted effort to combat malnutrition among children attending Anganwadi centres. This pilot study explores the significant impact of this intervention on children's health and well-being, highlighting its potential to improve nutritional status in vulnerable populations.

Methodology & Results: Nutritional screening was conducted for 95 children and teenagers aged 4 to 17 years, with consent obtained from Anganwadi centres. Assessment tools included a Body Stat machine for weight, hydration, protein levels, skeletal muscle mass, blood pressure monitors, dynamometers for grip strength, and standard scales for height. After identifying nutritional deficiencies, the meal menu was modified to include high biological value proteins, traditional Indian desserts with reduced sugar, and a greater variety of fruits and vegetables. Portion sizes were tailored to age, adhering to the Recommended Dietary Allowance (RDA), with one meal provided daily, allowing minor adjustments based on children's preferences.

Initially, 69.4% of the children were underweight, 29.5% were normal weight, and 1.1% were overweight. Following a three-month intervention, follow-up screenings revealed significant improvements in nutritional parameters. Key enhancements included increased protein intake, skeletal muscle mass, and hydration levels, with 70% of underweight children gaining an average of 940 grams.

Conclusion: This study emphasizes the importance of nutritional support for children, advocating for expanded programs to ensure comprehensive meal provision. Sāmya India remains committed to improving the futures of these children through ongoing efforts.

Biography:

Dr. Namrata Nitin Bagle is a seasoned academic and researcher with over 15 years of experience. She completed her Ph.D. at SNDT University, fostering a passion for research. Dr. Bagle has held key leadership roles, including General Manager and Head of Department, developing expertise in team management and growth. Currently, she serves as the Lead Health and Nutrition Specialist at Sāmya India, overseeing menu planning, quality control, and research development. A recognized thought leader, she has spoken at numerous global conferences and published extensively in esteemed international journals, contributing significantly to her field.



Sowmya G S^{1*}, Dr. Visalakshi Sridhar²

¹PhD research scholar, department of psychology, Martin Luther Christian University

²Consultant Psychologist, department of psychology, Institute for Psychological Health

Coping and Adaptation Strategies in Congenital Heart Disease—a Qualitative Single Case Study

Background: Congenital heart disease (CHD) is a prevalent cardiovascular disorder commonly diagnosed in infants. Thanks to advancements in medical care, most affected individuals now survive into adulthood. However, CHD still poses risks of heart failure and significantly impacts patients' lives, often affecting their ability to function normally and maintain positive mental health. Thus, developing effective coping and adaptation strategies is essential for managing this condition. This article aims to illustrate the coping mechanisms and adaptation strategies of a CHD patient who has achieved enhanced psychological well-being throughout her life.

Methods: KK, one participant selected from a group of 28 individuals with various cardiovascular conditions based on her high scores on the 54-item Ryff's Psychological Well-Being Scale, underwent a detailed case study. Four unstructured interviews were conducted to explore her subjective experiences. A comprehensive within-case analysis was performed to examine KK's coping strategies, adaptations, and attitudes toward her illness.

Results: The analysis identified three key themes: Gratitude, Resilience, and Compassion. These attributes appear to correlate with KK's elevated psychological well-being scores, suggesting a positive prognosis for her condition. The findings highlight how her perspectives and strengths have facilitated effective coping with CHD over 47 years.

Conclusion: In conclusion, the attributes of resilience, gratitude, and compassion are vital for individuals coping with CHD and other cardiovascular diseases. These qualities not only enhance the prognosis of the illness but also support navigation through difficult life events, contributing to improved psychological well-being. The insights presented may provide valuable guidance for healthcare professionals, primary caregivers, and individuals living with CHD.

Keywords: Congenital heart disease, coping, adaptation, and psychological well-being.



Mary Anbarasi Johnson
CMC Vellore, India

Cardiac health of children: Pediatric nurses' concerns

Cardiovascular disease in children, while relatively rare, poses significant challenges for pediatric nurses who are essential in both preventive and acute care settings. Pediatric nurses play a crucial role in early detection, management, and education regarding heart health in children, ranging from congenital heart defects to acquired conditions like arrhythmias and hypertension. This paper explores the key concerns pediatric nurses have regarding children's cardiac health, with a focus on early intervention, the impact of lifestyle factors, and the rising prevalence of pediatric obesity. Additionally, it highlights the need for comprehensive training in pediatric cardiology, the integration of family-centered care, and the importance of emotional support for both children and their families. Pediatric nurses must be well-equipped to assess heart health in children, recognize symptoms early, and work collaboratively with healthcare teams to provide holistic care. Preventive strategies and health education, including promoting physical activity and healthy eating, are essential in reducing the long-term risks of cardiovascular disease in children. Ultimately, the role of pediatric nurses in fostering a proactive, informed approach to pediatric cardiac health is indispensable in improving outcomes and ensuring long-term well-being for this vulnerable population.

Biography:

I am Mary Anbarasi Johnson, working as a Professor and Head in the Pediatric Nursing Department, CMC Vellore. I worked as a Clinical Nurse Specialist in the PICU for a year and as an Assistant Professor in the USA for two years. US faculty and friends went out of their way to help me. I also worked as Assistant Director of Nursing in the Saudi Arabia Defence Sector (Khamis Mushayt Armed Forces Hospitals for the Southern Saudi Arabia Region). I learned much about the military from the excellent and amicable team there. I have served in CMC Vellore as Deputy Nursing Superintendent for staff training and quality assurance, NABH coordination, HICC coordination, etc. I have been a member of the CMC Institutional Research Board for more than four years. CMC gave me the opportunity to be Secretary for the HICC (Hospital Infection Control Committee) for a term. It also provided me the chance to serve as a Master Trainer for international projects like GFATM and IMNCI at the national level, as well as national projects like ICMR Infection Control, Child Sexual Abuse Protection, OSCE by Dr. MGR Medical University, and the Diabetes Educators Programme. I have also had the opportunity to be an examiner or paper setter for various levels of nursing students for six universities and an inspector for Dr. MGR Medical University. I am very much interested in reviewing articles. I have published in 70 national and international journals and presented at around 30 national and international conferences. I have also contributed to five book chapters and published a book. I have completed the "Lean Six Sigma – Academy Europe" green, yellow, and black belts in Saudi Arabia. The NGO "INSO" awarded me, and I am thankful to them, as well as to the SAS Society for granting me the Fellow Membership (FSASS). I was given the opportunity to be the Chief Editor for a book on "Trends in Engineering, Management and Arts" and Editor for a Management book. I recently received the "Life Achievement Award" by SAHEI. The Best Faculty Award and Best Administrative Officer Award were also bestowed upon me this year by Coimbatore Academy, India. My alma mater helped me receive the President's Gold Medal for standing first in the university for the B.Sc (Nursing) programme. CMC's research guidance has given me the opportunity to be a speaker at many international conferences and to serve as an advisory member, editorial member, executive editor, or reviewer in more than 100 international journals. I also serve as the Chief Editor for two indexed international journals. I was recently conferred the "Icon of the Year Award" by Rifacimento International.



Suman Badhal

Vardhman Mahavir Medical College and Safdarjung Hospital, India

Cardiac rehabilitation in post Myocardial Infarction patients: A tertiary care center study

Cardiac rehabilitation is a multidisciplinary holistic program which is used for improving a patient's physical performance, psychological condition, and quality of life through endurance training and lifestyle modifications. It helps in reducing morbidity and mortality in patients with cardiovascular diseases. It is a four-phase programme in which phase one is for inpatients. Phase two and three are supervised outpatient programme and Phase four is unsupervised home-based exercise programmes. Plenty of literature available for the benefits but, it is underutilized. The present study was conducted to find out the effect of cardiac rehabilitation in patients who survived myocardial infarction.

Study is being conducted in the tertiary care centre VMMC & Safdarjung Hospital, New Delhi, India . It is an interventional cohort study involving 45 MI survivors. A 12 weeks cardiac rehabilitation program was given. Patients were assessed in terms of physical performance (6 MWT, Barthel index, and TMT), quality of life (By WHO QoL SF-36) and lipid profile (in terms of TC, HDL, LDL and VLDL) using validated questionnaires and standardized tests.

There was a statistically significant difference in the parameters of Six-minute Walk test, Barthel index, lipid profile and in all the eight domains of Short Form -36 as compared to baseline assessment.

There is a remarkable improvement in patients in terms of physical performance and quality of life after cardiac rehabilitation

Biography:

Dr Suman Badhal has completed her MD in PMR at the age of 29 years from AIIMS New Delhi She is professor at, VMMC and Safdarjung hospital a tertiary care facility in New Delhi in India. She has published more than 26 papers in reputed journals and chapters in the books .She is editor and contributor for three books and has been serving as reviewer of reputed journals for rehabilitation medicine and Chairman of SIG of cardiac rehabilitation in IAPMR .



Mary Anbarasi Johnson
CMC Vellore, India

Gender Bias And Girl Child's Status-Pediatric Nurses Concern

Gender inequality remains a significant issue, particularly affecting the status and well-being of the girl child worldwide. Pediatric nurses, at the forefront of child healthcare, play a crucial role in addressing these disparities. This abstract explores the gender-related challenges faced by girl children, focusing on pediatric nurses' concerns and interventions to ensure equitable healthcare access and treatment. The persistent gender bias, particularly in countries like India, places girl children at a disadvantage in terms of nutrition, education, and healthcare. Pediatric nurses encounter these biases through delayed medical care, neglect of the girl child's health needs, and the societal preference for male children. These challenges contribute to poor health outcomes, including malnutrition, anemia, and higher mortality rates among girls. Additionally, gender stereotypes can affect girls' psychological well-being, resulting in low self-esteem, anxiety, and depression. This paper highlights the importance of pediatric nurses advocating for gender-sensitive care that challenges stereotypes and ensures holistic, equitable treatment. Nurses can promote awareness, engage in community education, and develop strategies that address the specific healthcare needs of girl children, recognizing their unique vulnerabilities. Research and policies addressing gender bias are vital to improving health outcomes for girls globally. In conclusion, pediatric nurses are essential in combating gender inequality in healthcare, advocating for the girl child's right to receive the same quality of care as boys, and ensuring that gender bias does not hinder their physical, emotional, and social development.

Biography:

I am Mary Anbarasi Johnson, working as a Professor and Head in the Pediatric Nursing Department, CMC Vellore. I worked as a Clinical Nurse Specialist in the PICU for a year and as an Assistant Professor in the USA for two years. US faculty and friends went out of their way to help me. I also worked as Assistant Director of Nursing in the Saudi Arabia Defence Sector (Khamis Mushayt Armed Forces Hospitals for the Southern Saudi Arabia Region). I learned much about the military from the excellent and amicable team there. I have served in CMC Vellore as Deputy Nursing Superintendent for staff training and quality assurance, NABH coordination, HICC coordination, etc. I have been a member of the CMC Institutional Research Board for more than four years. CMC gave me the opportunity to be Secretary for the HICC (Hospital Infection Control Committee) for a term. It also provided me the chance to serve as a Master Trainer for international projects like GFATM and IMNCI at the national level, as well as national projects like ICMR Infection Control, Child Sexual Abuse Protection, OSCE by Dr. MGR Medical University, and the Diabetes Educators Programme. I have also had the opportunity to be an examiner or paper setter for various levels of nursing students for six universities and an inspector for Dr. MGR Medical University. I am very much interested in reviewing articles. I have published in 70 national and international journals and presented at around 30 national and international conferences. I have also contributed to five book chapters and published a book. I have completed the "Lean Six Sigma – Academy Europe" green, yellow, and black belts in Saudi Arabia. The NGO "INSO" awarded me, and I am thankful to them, as well as to the SAS Society for granting me the Fellow Membership (FSASS). I was given the opportunity to be the Chief Editor

for a book on "Trends in Engineering, Management and Arts" and Editor for a Management book. I recently received the "Life Achievement Award" by SAHEI. The Best Faculty Award and Best Administrative Officer Award were also bestowed upon me this year by Coimbatore Academy, India. My alma mater helped me receive the President's Gold Medal for standing first in the university for the B.Sc (Nursing) programme. CMC's research guidance has given me the opportunity to be a speaker at many international conferences and to serve as an advisory member, editorial member, executive editor, or reviewer in more than 100 international journals. I also serve as the Chief Editor for two indexed international journals. I was recently conferred the "Icon of the Year Award" by Rifacimento International.



Santosh Kumar Mishra
S. N. D. T. Women's University, India

Neonatal Healthcare and Mental Health

The mental health of infants and young children (up to 3 years of age) is as important as their physical health. Infant mental health is measured by how new-borns develop socially and emotionally. Children's brain develops rapidly, they begin to learn how to relate to others and express and manage emotions. It is, thus, important to identify poor mental health outcomes at an early age, as this will have lasting impact at later ages. Objective of this evidence-based review paper is to present discussion on strategies for addressing neonatal mental health care. Secondary data ('qualitative' in nature) have been used, and method of data analysis is 'descriptive'. Analysis of data in this research indicates that new-born babies have no ability to self-regulate their emotional expressions. Mental health aspects include emotional and social growth among infants. It is pertinent to note that right from beginning, neonatal infants look for (1) 'love', (2) 'learning', and (3) 'safety': three-fold dimensions of mental health of infants. Role of parents in addressing mental health care needs is of paramount importance. When they provide infants a warm and tender relationship, this intervention enables (a) "*them to feel protected*", (b) "*comfort them when they are upset*", and (c) "*help them navigate the world*". This is the mechanism through which parents (including other involved family members) lay the groundwork for a lifetime of mental health. Further, since new-borns are vulnerable and unable to regulate their physical and emotional situations independently, key to addressing mental health lies in their relationship with primary care-givers. *Furthermore*, mental health in infants is about how they begin to organize their feelings and connect with other people (including their capacity to express emotions). This paper concludes that monitoring an infant's mental health status for signs (that the child may be struggling with) is important.

Key Words: Neonatal, Mental Health, Vulnerable, Relationship, & Safety

Biography:

Dr. Santosh Kumar Mishra is Independent Researcher (Scholar), having retired from Population Education Resource Centre, Department of Lifelong Learning & Extension, S.N.D.T. Women's University, Mumbai, India. He underwent training in demography & acquired Ph. D. He has authored 6 booklets, 4 books, 31 book chapters, 109 journal articles, 2 monographs, 7 research studies, & 119 papers for national & international conferences (some with bursary). He has been awarded with Certificate of Excellence in Reviewing in 2017, 2018, 2021, 2022, & 2024; and conferred with Excellence of Research Award for outstanding contribution & recognition in the field of agriculture in 2021.

Afraa Talal Barzanji
MOH, Saudi Arabia

Ways for vaccination safety during outreach

Vaccination outreach is providing vaccines to people, but not at health facilities. It helps in increasing vaccination coverage. Also, people who live in remote areas who have limited access can benefit from this. It is important to adhere to guidelines related to vaccination even in community settings. Vaccination Safety is crucial when preparing vaccines, administering them, and also afterwards as in reporting adverse events.

What will the audience learn from your presentation?

- Difference between outreach and campaigns
 - Vaccination safety definition
 - Vaccination safety measures before, during, and after administering vaccines
 - Common challenges in community settings
- Keywords: vaccination safety, outreach, vaccines

Biography:

Dr. Afraa is a community consultant doctor. She is a holder of bachelor's degree of medicine and surgery from Taibah University. Then she had her specialization through Saudi Board in community medicine in Riyadh and she was recognized as the best resident among her batch. In 2016, she became a certified professional in healthcare quality which is earned from the National association for healthcare quality in United States. Many researches and reviews were done by her; and among the domains she is focusing on is prevention and risk factors. She is also a certified peer reviewer by Publons Academy.

Jehan Alsharnoubi¹, Rasha Zohdy²

¹ Prof. Jehan Alsharnoubi: Prof of Pediatrics, National Institute of Laser Enhanced Sciences (N.I.L.E.S), MD, PhD, Cairo University, Cairo, Egypt

² Rasha Zohdy Abd Ellatif: Assist. Researcher of Biological Anthropology, Medical Research and Clinical Studies Institute, National Research Centre

Effects of Laser Acupuncture on anthropometric parameters and inflammatory markers in obese adolescents

Objectives: Compare the effect of diet and exercise on anthropometric parameters and inflammatory markers with laser acupuncture effect on obese adolescents.

Methods: The study was a randomized controlled longitudinal study. It included adolescents from both sexes, were divided randomly into two groups (A & B) treated with Low calorie diet and exercise & laser acupuncture respectively. All parameters and Blood samples were done before and after the interventions.

Result: group A showed a highly significant reduction post intervention in all anthropometric parameters, except for W/H ratio which showed no significant difference, $p > 0.05$ and inflammatory markers (TNF- α and IL-6) with ($p < 0.001$). In group B (LCD + Exercise + LA) showed a highly significant reduction post intervention in all anthropometric parameters except for W/H ratio which showed no significant difference, $p > 0.05$ and inflammatory markers (TNF- α and IL-6) with ($p < 0.001$). The current study revealed a significant differences between Group A and Group B regarding the percentage of change, where the highest values were found in Group B compared to Group A, in anthropometric parameters (weight, BMI, Waist circumference) and inflammatory markers (TNF- α and IL-6) with ($p < 0.05$).

Conclusion: Laser acupuncture was safe, easy and more effective tool with extra effect in management of obesity when added to diet and exercise on anthropometric parameters and inflammatory markers.

Keywords: Laser acupuncture, Anthropometric parameters, Lipid profile, Obesity, Adolescents

Mathato

Partners in Health, Lesotho

Maternal feeding practices

Background: According to UNICEF globally, only 48% of newborns receive health checks within a recommended time period. In Lesotho, this data is currently not being collected. Partners in Health Lesotho (PIH-Lesotho) supports the Ministry of Health to provide comprehensive maternal, newborn, and child health services at seven rural health facilities. To improve newborn health, PIH-Lesotho initiated a quality improvement project to ensure the initial neonatal examination is done within the first hour of life. The aim of an initial neonatal examination is to confirm normality and to identify congenital abnormalities which may be life-threatening.

Method: In 2020 PIH-Lesotho's quality improvement (QI) team, in collaboration with the Ministry of Health, implemented the Quality Decisions Count project, where the gap in the initial neonatal examination was identified. Therefore, in 2021 the team established a QI project to improve the number of newborn babies who are examined within the first hour of birth. A nurse-led team implemented a cascading quality improvement project that determined a baseline, assessed the staff training needs, and adapted relevant, evidence-based protocols. QI teams received coaching on problem identification, development of innovative change ideas, and monitoring mechanisms. The change ideas implemented include didactic training on neonatal examination and quarterly simulation training. The processes and systems were redefined and streamlined to improve standardization.

Results: A total of 26 nurse midwives were trained on neonatal examination, and total of 253 newborns have been examined. One congenital abnormality was identified from the health centers called hypospadias. The median neonatal first examination improved from 68% to 100% post program implementation. Nurse midwives were the leaders in these QI efforts, and they employed evidence-based care delivery processes. Regular onsite coaching and mentorship of the QI team ensured that they had the needed support to implement improvement projects.

Conclusion: Implementing a quality improvement strategy has been effective in improving the neonatal first examination. Training capacitation has been the key driver and catalyst in improving neonatal first examination.

Pin Yi

University of Witwatersrand, South Africa

Biomarkers of Collagen Metabolism and Correlation with Aorta Strain in HIV Aortopathy

Background: Human Immunodeficiency Virus (HIV) independent of traditional risk factors is associated with a four-fold higher risk of aortic aneurysm, however the pathophysiology remains understudied.

Purpose: The role of biomarkers of collagen metabolism in the pathophysiology of HIV associated thoracic ascending aortic aneurysm (TAA) and their correlation to aortic circumferential strain (CS) and $\beta 2$ stiffness index, a surrogate for aortic stiffness was explored.

Method: A retrospective descriptive cross-sectional study was conducted from April 2017 to March 2018 at Chris Hani Baragwanath Hospital. It comprised 57 patients with HIV associated TAA and age and gender matched normal controls (n=56) and HIV reactive (n=57) patients without aneurysms. Clinical, echocardiographic and data regarding biomarkers of collagen metabolism was analyzed and compared within the HIV group and between the 3 groups.

Results: Mean age of our study population was 45.23 ± 9.07 years with 2:1 female predominance. Aortic CS in HIV TAA was significantly lower ($p < 0.001$) and $\beta 2$ stiffness index higher ($p < 0.001$) compared to the two control groups. Matrix metalloproteinase (MMP-1) was higher in the HIV TAA group compared to controls ($p = 0.006$) with no statistically significant difference between tissue inhibitor of metalloproteinase (TIMP-1) levels. MMP 1: TIMP 1 ratio was higher compared to the control groups ($p < 0.001$) indicating a net collagen degradation effect. Procollagen III N-terminal peptide (PIIINP) was elevated ($P = 0.001$) with no difference in procollagen I carboxy-terminal propeptide (PICP) between groups. There was no significant correlation between biomarkers of collagen metabolism and CS of aorta.

Conclusion: HIV TAA is predominantly characterised by collagen degradation as suggested by increased MMP1 activity, impaired TIMP -1 activity and increased MMP:TIMP ratio. It is associated with increased PIIINP turnover and potential increased type III collagen degradation resulting in weakening and dilatation of the aortic wall, whilst normal values of PICP imply less involvement of type I collagen.

Biography:

Pin-Yi Wu is a dedicated and compassionate medical doctor currently undergoing specialist training in Internal Medicine at the University of Witwatersrand, South Africa. She grew up in Bloemfontein, and completed her undergraduate teaching at the University of Pretoria. With a strong passion for delivering exceptional patient care and advancing medical knowledge, Pin-Yi Wu is committed to making a meaningful impact in the field of medicine.



Beatriz Amaral Costa Savino

Hospital de Clinicas of the State University of Campinas, Brazil

Noncompaction Myocardium and Puerperium: Case Report

Introduction: Noncompacted Myocardium Cardiomyopathy (NMC) is a rare condition characterized by abnormal trabeculations in the left ventricle, with a prevalence ranging from 0.9% to 9.8%. During pregnancy, physiological adaptations fail to counterbalance increased maternal hemodynamic demands, and women with preexisting cardiomyopathies may have exacerbation of symptoms of the underlying condition.

Case Report: A 30-year-old female with a history of unspecified congenital heart disease and no regular follow-up developed dyspnea during pregnancy, which worsened postpartum. She progressed to dyspnea on minimal exertion, orthopnea, lower limb edema, and paroxysmal nocturnal dyspnea. She was admitted to the emergency department with symptoms of Heart Failure Profile C and was treated with inotropes and diuretics. Transthoracic Echocardiography revealed global cardiac chamber dilation, eccentric hypertrophy, diastolic dysfunction, and severe systolic dysfunction in both ventricles with left ventricular ejection fraction of 20%, suggestive of cardiomyopathy. Cardiac Magnetic Resonance Imaging confirmed the diagnosis of NMC, showing late enhancement in the left ventricle lateral wall and excessive trabeculation. After stabilization, she maintained severe heart failure with debilitating symptoms despite optimized medical therapy and was listed for heart transplantation in April 2024.

Discussion and Conclusion: NMC results from a failure in myocardial compaction during embryonic development, leading to excessive trabeculations and an increased risk of arrhythmias, thromboembolic events, and heart failure. Pregnancy-related hemodynamic changes, such as increased cardiac output, blood volume, and heart rate, as well as reduced peripheral vascular resistance, can exacerbate ventricular dysfunction in individuals with cardiomyopathies, as observed in this case. Therefore, early diagnosis and timely intervention are crucial for optimizing patient prognosis and mitigating disease progression, thereby reducing the risk of requiring a heart transplant, as illustrated in this report.

Key words: Cardiomyopathy, Ventricular Dysfunction, Heart Transplantation.

Biography:

Beatriz Amaral Costa Savino is a physician specializing in Internal Medicine and a Master's Student at the Hospital de Clinicas of the State University of Campinas (Unicamp), São Paulo, Brazil. With a strong academic background and dedication to patient-centered medicine, her research and clinical interests focus on advancing cardiovascular care, critically ill patient and medical education.



George Wuni
Cooper University, United States

Trends in incidence and in-hospital mortality among women with Acute Myocardial Infarction (AMI) with or without Spontaneous Coronary Artery Dissection (SCAD): A 6-year Nationwide Analysis (NIS 2016-2021)

Background: Over the past few decades, there has been a growing awareness of spontaneous coronary artery dissection (SCAD). Acute myocardial infarction (AMI) can occur in SCAD patients, especially in young, healthy women without traditional risk factors. Nevertheless, there are conflicting data regarding the results of SCAD patients who present with AMI or the advantages of PCI for SCAD in the context of AMI.

Methods: A retrospective review of the National Inpatient Sample database from 2016 to 2021 to assess current trends and in-hospital mortality of women with AMI who presented with or without SCAD. The Cochran Armitage test was used to compare the linear trends of PCI and in-hospital mortality. Chi-Square testing, t-tests, and Mann-Whitney U Test were also used for analysis.

Results: Women with SCAD were younger (55.28 vs. 64.1 years) with less comorbidity. SCAD was associated with lower incidence of overall in-hospital mortality (4.10% vs 7.60%, $p<0.001$). Racial distribution was comparable among both groups. In SCAD patients, there was no change in in-hospital mortality with time (4.80% in 2016 vs 4.20% in 2021, $p=0.909$), and concurred with overall less PCI (34.3% in 2016 vs 20.1% in 2021). In non-SCAD patients, there was a gradual increase in in-hospital mortality (7.4% in 2016 vs 9.0% in 2021, $p<0.001$), and concurred with overall slightly decreased PCI rate (23.9% in 2016 vs 23.2%, in 2021 $p<0.001$). The incidence of SCAD-MI is steadily increasing every year.

Conclusion: This study demonstrates increasing mortality rate for non-SCAD patients and unchanged mortality rates for SCAD patients. Nonetheless, it appears that the number of SCAD-MI patients is rising steadily every year. Further research is needed to understand the underlying factors for these outcomes.

Key words: Women, SCAD, MI, PCI

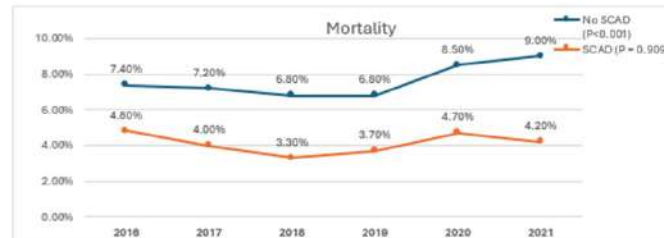


Fig. 1. Trends in-hospital mortality rates in woman with and without SCAD, year 2016 to 2021.



Fig. 2. Trends of PCI rates in woman with and without SCAD, year 2016 to 2021.

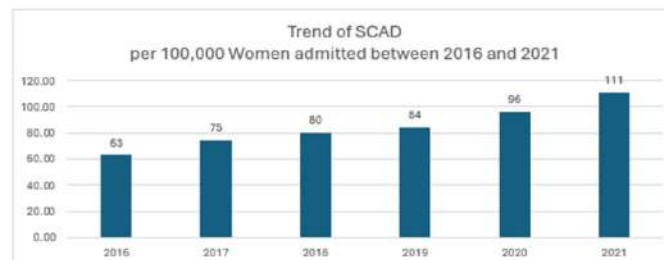


Fig. 3 Demonstrates incidence of SCAD per 100,000 women admitted between 2016-2021.

Biography:

George Wuni completed his medical training at the University of Ghana and his internship and residency training at Harlem Hospital Center in New York. He is currently an advanced hospital medicine fellow at Cooper University in New Jersey and an MBA candidate at Cornell University in New York. His clinical interests are in cardiovascular disease and population health.



Alieva R.B.*, ZH. Alieva, Yakhyoeva M.U
RSCPMCC, Uzbekistan

Correlation of Echo CG parameters in PTS with Breast Cancer with the number of Chemotherapy courses

Republican Specialized Scientific Practical Medical Center Of Cardiology, Tashkent, Uzbekistan 55 patients with breast cancer were examined after surgical treatment. All patients received both neoadjuvant and adjuvant chemotherapy. Depending on the number of chemotherapy courses, three groups were identified: group I – 18 patients with chemotherapy courses from 2 to 4 (median 2.8 ± 1.1); Group II – 26 patients with chemotherapy courses from 5 to 9 (median 7.5 ± 1.2); Group III – 11 patients with chemotherapy courses from 10 to 20 (median 13.9 ± 3.2). When conducting an echocardiography study, the following indicators were taken into account: stroke volume (SV, ml), left ventricular ejection fraction (LVEF, %), myocardial mass (LVMM, g), and its indexed indicator (LVMI), relative wall thickness (RW).

Results: Analysis of intracardiac hemodynamic parameters in the analyzed groups established that patients in group III were characterized by the lowest values of CO (by 13.2 and 8.0 ml compared with similar indicators in groups I and II) and LVEF (by 13.3 and 5.8% compared with groups I and II), as well as LVMM (difference with I group – 15.9 g and with II group – 2.6 g) and its indexed indicator (difference 28.9 and 2.6 g/m², respectively with the I and II groups). The calculation of the RWT established that the lowest values of the were also observed in women of the III group, which amounted to 0.39 ± 0.05 units, i.e. was < 0.45 units. This was due to the small number of people with RWTh a level ≥ 0.45 units, which occurred in only 18.2% of women in this group.

Assessment of LV IMM and RWT in order to clarify the geometric type of LV showed that the majority of women had LV IMM $> N$, RWT < 0.45 - which corresponds to eccentric LV hypertrophy, and only 16 patients (29.1% of the entire sample) had LV IMM $> N$, RWT ≥ 0.45 – which corresponds to concentric LV hypertrophy. All women had previously received chemotherapy. The average number of chemotherapy courses in the group as a whole was 7.3 ± 4.3 courses. When conducting a correlation analysis between the number of chemotherapy courses and LVEF values, an inverse relationship was established ($p < 0.05$), i.e. The more courses of chemotherapy the patients received, the worse the LVEF values were ($p = 0.037$; $t = -2.142$; $r = -0.287$).

Conclusions: In breast cancer, as the number of chemotherapy courses taken increased, there was a decrease in SV and LVEF, while the majority of women were characterized by the development of eccentric LV hypertrophy. However, it is also necessary to take into account the side effects of chemotherapy itself, especially its cardiotoxicity.

Biography:

Alieva R.B. has completed his PhD at the 2019 at the PSSPMCC and postdoctoral studies from RSSPMCC at 2024. He is the director of Lipid Center of Uzbekistan Cardiology Assosuation. He has published more than 85 papers in reputed journals and has been serving as an editorial board member of repute.



Kelsey Mendell, ScM*¹, Adithi Chandra², Robin A. Horn, MD, MS, FACC³

¹New York Institute of Technology College of Osteopathic Medicine, Old Westbury, NY, USA

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Enoxaparin as alternative long-term therapy for mechanical mitral valves

Current standard of care in preventing mechanical mitral valve thrombosis consists of a warfarin-based regimen. However, managing patients intolerant to warfarin safely and effectively is a unique challenge. Data on long-term low molecular weight heparin, specifically enoxaparin, are limited. We offer a successful long-term anticoagulation strategy for a patient with a mechanical mitral valve with warfarin intolerance.

The patient is a 67-year-old male who underwent mitral valve repair with subsequent redo surgery. His medical history is significant for atrial fibrillation, chronic diastolic heart failure, severe pulmonary hypertension, renal transplant due to chronic kidney disease and cirrhosis. Initially on warfarin, the patient was hospitalized seven times in one year with severe gastrointestinal bleeding and highly variable INRs. He underwent multiple endoscopies, which revealed gastric ectasia, portal gastropathy, and gastric ulcers. Warfarin was switched to once daily enoxaparin with anti-factor Xa monitoring due to recurrent bleeding and inability to maintain a therapeutic INR range. Due to the patient's advanced renal disease with a GFR of 30 mL/min and fluctuating creatinine levels, a fixed dose enoxaparin regimen was not feasible. Long-term enoxaparin use relied on maintaining anti-Xa levels between 0.8-1.2 U/mL. Levels were measured 3-4 hours post-injection, checked weekly initially and later bimonthly. Although there was no standardized recommendation on proper dose adjustment, based on limited published data, this formula was utilized to calculate dose changes: $\text{New dose} = [(\text{Current dose}) \times (\text{Goal anti-Xa level})] / (\text{Current anti-Xa level})$. Notably for fourteen months, the patient was successfully managed without significant change in his mitral valve gradient or major bleeding before expiring from pneumonia.

Enoxaparin may be a safe and effective long-term anticoagulation option for warfarin-intolerant patients with mechanical mitral valves, provided there is careful anti-Xa monitoring and dose adjustment. Further studies or registries are needed to strengthen evidence and refine management for this high-risk population.

Biography:

Kelsey N. Mendell is a third-year medical student currently attending the New York Institute of Technology in New York, USA who has completed a Master of Science degree in medical sciences from Brown University and a Bachelor of Arts degree in biology with a minor in chemistry from the University of Pennsylvania. This abstract was completed in coordination with Adithi Chandra, a high school student at Sanford School in Hockessin, DE, USA under the guidance of principal investigator Dr. Robin A. Horn, MD in the department of cardiology at Christiana Care Health System in Newark, DE, USA.

Fadoua Lahnaoui
Chu Tanger, Morocco

Heart Valve Disease in Hurler-Scheie Syndrome: A Case Report of a 14-Year-Old with Severe Mitral Stenosis

Introduction: Hurler-Scheie syndrome is a genetic disorder caused by a deficiency in the enzyme alpha-L-iduronidase, leading to the accumulation of glycosaminoglycans (GAGs) in tissues. Cardiac involvement, particularly mitral and aortic valve disease, is common and can lead to severe complications. Early diagnosis and intervention are essential for managing these patients.

Case Presentation: A 14-year-old boy with Hurler-Scheie syndrome presented with dyspnea classified as NYHA stage II. He had a history of dysmorphic syndrome, statural and weight retardation since the age of 4, surgery for an inguinal hernia at 2 years, and recurrent bronchial infections. The clinical examination showed facial dysmorphism, a short neck, arthrogryposis (contracture) of the hand joints, and a diastolic rumble at the mitral area. The ECG was normal.

An echocardiogram revealed mitral stenosis with a planimetric area of 0.9 cm² and a mean gradient (Gmoy) of 13 mmHg. The left atrium was dilated, but the left ventricle remained non-dilated with preserved function. There were no signs of aortic stenosis or pulmonary hypertension. Although percutaneous dilation of the mitral stenosis was indicated, the patient tragically died before the procedure could be performed due to a pulmonary infection.

Conclusion: Cardiovascular disease in Hurler-Scheie syndrome presents significant management challenges, particularly mitral valve involvement. Surgical repair is difficult, and valve replacement is often required. Enzyme replacement therapy can slow organ damage but has limited effects on valve disease. A multidisciplinary approach, including early intervention and monitoring, is crucial for improving long-term outcomes and the quality of life in these patients.

Keywords: Hurler-Scheie syndrome, mitral stenosis, enzyme replacement therapy.

Biography:

Fadoua Lahnaoui is a resident at the end of her 4th year in the cardiology department at CHU of Tangier, Morocco. She has contributed to scientific articles in indexed journals such as SCRIP, Annales de Cardiologie, and ACC Middle East.

Evelyn Inga, MD

Department of Internal Medicine - The University of New Mexico, United States

Analyzing the effectiveness and outcomes of atrial fibrillation ablation in patients with LVEF >35% by stratifying the data into three subgroups: Systematic review and meta-analysis

Background: Atrial fibrillation (AF) ablation is a critical therapeutic intervention for patients with reduced left ventricular ejection fraction (LVEF). However, the effectiveness of this approach in patients with LVEF greater than 35% remains uncertain, as findings from this group do not consistently align with earlier results. This meta-analysis aims to compare the efficacy of catheter ablation versus medical therapy in patients with LVEF >35%.

Methods: We systematically searched the Cochrane Library, PubMed, and Embase up to March 2025 for randomized controlled trials (RCTs) that compared catheter ablation and medical therapy specifically in patients with LVEF >35%. Key outcomes included improvements in LVEF, AF recurrence rates, hospitalization incidents, and all-cause mortality. We assessed study quality using the Cochrane risk of bias tool (ROB2). Statistical analyses involved calculating pooled effect sizes, assessing heterogeneity with the I^2 statistic, and evaluating publication bias through funnel plots.

Results: Our analysis encompassed eight RCTs published from 2012 to 2025, involving 1,481 patients (745 underwent ablation, 736 received medical therapy). Catheter ablation resulted in a significant mean LVEF improvement of 8.2% (95% CI: 6.5–9.8, $p < 0.001$) compared to medical therapy. Additionally, ablation reduced AF recurrence rates (HR: 0.62, 95% CI: 0.45–0.86, $p = 0.005$) and decreased heart failure hospitalization rates (HR: 0.67, 95% CI: 0.53–0.85, $p = 0.002$). While there were trends suggesting lower mortality (HR: 0.79, 95% CI: 0.58–1.07, $p = 0.11$), these findings were inconsistent. The I^2 statistic indicated moderate heterogeneity (42.3%), and funnel plot assessment revealed minimal publication bias, with sensitivity analyses confirming the robustness of study outcomes.

Conclusion: Patients with LVEF >35% undergoing catheter ablation exhibited more significant LVEF improvements and lower AF recurrence rates compared to those receiving medical therapy. Further research is necessary to optimize patient selection criteria and to evaluate long-term survival outcomes, underscoring the need for a stratified treatment approach based on LVEF in AF management.

Biography:

Evelyn Inga, MD, is a second-year internal medicine resident at the University of New Mexico with a strong research background. Her research interests center on improving outcomes for underrepresented minorities in cardiology. Dr. Inga's experience includes research fellowships at Beth Israel Deaconess Medical Center, Harvard University. She has presented her research at local, state, national, and international cardiology conferences. She already has several publications and more on the way. Dr. Inga is committed to advancing cardiology care through research and clinical practice.



Shivi Kumar

Mind Matters Foundation, Marcus High School, Flower Mound, Texas,
United States

NeuroCardioTrace-X: A Dual-Modality EEG and HRV Platform for Predicting Cognitive and Cardiovascular Decline in Adolescents at Genetic Risk for Neurodegeneration and Vascular Dysfunction

Cardiovascular and neurodegenerative disorders are deeply intertwined, yet early risk detection across both domains remains a challenge—especially in youth populations. This project presents

NeuroCardioTrace-X, a dual-modality, non-invasive diagnostic platform that combines electroencephalography (EEG) and heart rate variability (HRV) to predict early cognitive and cardiovascular dysfunction in adolescents carrying the APOE $\epsilon 4$ allele and other polygenic risk factors.

We employed datasets from the National Sleep Research Resource (NSRR) and GEO (Gene Expression Omnibus) to train a hybrid model that maps correlations between EEG-derived functional connectivity (specifically frontal alpha asymmetry and theta-gamma coupling) and HRV-based autonomic balance (LF/HF ratio, RMSSD, SDNN) under resting-state and stress-response conditions. Results were further refined using a deep learning classifier to detect signature patterns indicative of emerging dysfunction in both cardiac vagal tone and cortical excitability.

Our hypothesis suggests that abnormalities in cortico-autonomic feedback loops precede clinical manifestation of either cognitive or cardiovascular disease. In preliminary simulations, adolescents at higher genetic risk exhibited statistically significant reductions in EEG synchrony and parasympathetic modulation—suggesting potential for dual-risk stratification.

The innovation of NeuroCardioTrace-X lies not only in its cross-system prediction capability, but also in its low-cost, portable design that could be deployed in schools, clinics, or public health screening settings. By capturing early deviation from neuro-cardiac homeostasis, this platform opens the door to truly integrative preventive medicine, where personalized brain-heart feedback informs targeted intervention before irreversible damage sets in.

This project bridges neuroscience, cardiovascular epidemiology, and digital health—offering a new paradigm in adolescent risk prediction and early intervention.

Keywords: Adolescents, APOE $\epsilon 4$, Cardiovascular Risk, Cognitive Decline, Cortico-Autonomic Coupling, EEG, Heart Rate Variability, HRV, Neurodegeneration, Precision Medicine, Preventive Cardiology

Biography:

Shivi Kumar is a passionate high school researcher and aspiring physician-scientist with a deep commitment to advancing scientific knowledge in the fields of neuroscience and genomics. As an emerging researcher, Shivi has made significant contributions to understanding complex medical topics, including metabolic hypoxia and brain tumors. Her work in these areas has earned her recognition as a semifinalist for the AAN (American Academy of Neurology) Research Neuroscience Award and a participant in the prestigious Regeneron Science Talent Search.

Shivi's academic journey is marked by her extensive involvement in various research projects, most notably her current focus on AI-powered precision medicine for neurofibromatosis, where she combines machine learning and genomic data to create innovative therapeutic solutions. With a strong interest in neurodegenerative diseases and brain cancer, Shivi is determined to make groundbreaking contributions in the medical field, aspiring to one day win a Nobel Prize for her research.

In addition to her academic pursuits, Shivi is an active member of her community. She is the founder of the Mind Matters Foundation, which aims to raise awareness and support research for marginalized pediatric populations diagnosed with neurodegenerative diseases. Through this foundation, she advocates for better healthcare resources and more equitable access to medical care for underserved groups.

Shivi is also a dedicated leader, co-founding the nonprofit GEWL (Global Education Women Leaders), which focuses on empowering young girls through education, mentorship, and leadership opportunities. Outside of her research and philanthropic endeavors, Shivi enjoys mentoring others and fostering the next generation of women in STEM.

With her eye on the future, Shivi is focused on expanding her knowledge and skills, constantly seeking opportunities to enhance her understanding of neuroscience, genomics, and AI to push the boundaries of what is possible in the field of medicine.

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