



Caribbean Cardiac Society
37th CARIBBEAN CARDIOLOGY
CONFERENCE

Moving Forward, Staying Current



HILTON BARBADOS
RESORT



JULY
25-28,
2024



PROGRAMME

TABLE OF CONTENTS

3	President's Message
5	Message from the Conference Chair
6-7	Caribbean Cardiac Society Past Presidents
8	Past Honourees
9	Tribute
11	Pre-Conference
13	Agenda Day 1
14	Opening Ceremony
16	Agenda Day 2
22	Agenda Day 3
27	Agenda Day 4
29	ECG Workshop
33	CCS 2024 Abstracts

President's Message



Dear Colleagues,

It is my esteemed pleasure to welcome you to our 37th Caribbean Cardiology Conference. The Caribbean Cardiac Society remains dedicated to promoting cardiovascular health and advancing the delivery of cardiovascular care throughout the Caribbean region. Our 2024 conference theme, "Caribbean Cardiology: Moving Forward, Staying Current", speaks to our resolve to educate, innovate and collaborate, as we chart the way forward, and overcome, eliminate, and rise above, the tumultuous waves of cardiovascular diseases in our region.

We thank our Barbados team for so graciously hosting us, and congratulate Dr. Dawn Scantlebury, our 2024 Conference Chair, and her hardworking committee, for the intriguing breadth and relevance of our conference programme offerings this year. This year's programme will include presentations on hypertension, cardiometabolic disease, ischaemic heart disease, heart failure, electrophysiology and cardiac rehabilitation, and will also feature presentations on paediatric and structural heart disease, women and

heart disease, and cardio-oncology. We will also explore the frontiers of digital health and artificial intelligence.

We are sure to be engaged by dynamic case presentations in our annual Interventional Roundtable session and look forward to the showcase of our young talent in the Professor Charles Denbow Young Clinician Award Competition. We are also delighted to have the return of our ECG workshop for medical students, allied health professionals, primary care physicians and internists.

This year, we fondly remember and pay special tribute to Dr. Martin Didier of St. Lucia, our 2008-2010 Past President, who died recently. A true pioneer, colleague and friend, Dr. Didier's vision, zeal and vigour helped to strengthen our collaborative ties with the Inter-American Society of Cardiology and the European Society of Cardiology, and to strengthen the Caribbean Cardiac Society's position as a regional and international vehicle for improved cardiovascular outcomes among the people whom we serve.

Finally, we thank our partner organisations, our sponsors and exhibitors, and you our attendees, for joining us this year. Without you, there would be no conference. We encourage you to refresh old seeds and plant new ones, as we look to a bountiful crop over. Jump onboard, let us collaborate, educate, innovate, and support each other; remaining current, as we chart the way forward together.

Dr. Marilyn B. Lawrence Wright, ScB, MD, MSc, FACP
Caribbean Cardiac Society President

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Message from the Conference Chair



Dear Colleagues,

It is my great pleasure to welcome you to my beautiful island of Barbados and to the 37th Caribbean Cardiology Conference. As the Chair of the CCS2024 organising committee, I am honoured to represent the cardiovascular (CV) community here in Barbados as we host such a prestigious gathering of cardiovascular professionals from around the globe.

Barbados is renowned for its vibrant culture, breathtaking landscapes, and warm hospitality. I hope you all take some time to explore and enjoy what our island has to offer during your stay. Our social events are designed to give you a taste of our island's beauty and culture. This conference is a unique opportunity for us in the region to come together to share knowledge, share experiences and encourage each other in this fight against CVD. The theme for CCS 2024 is Caribbean Cardiology: Moving Forward, Staying Current, reflecting our commitment to improving care for CVD patients across the Caribbean while remaining abreast of the latest developments and best practices.

As a Society, we have overcome significant hurdles to reach this point. From the challenges posed by the global pandemic to the ever-evolving landscape of medical research and practice, our journey has been marked by resilience, innovation, and unwavering dedication.

We have a packed agenda for you. We start with the interventional roundtable where the invasive specialists in the region collaborate and commiserate over difficult cases, innovations, complications and successes. Our opening session on Friday is dedicated to ATTR-CM and includes a special presentation from the caregiver's viewpoint. Other sessions include ischemic heart disease, with a focus on STEMI, paediatric and structural heart disease and a session dedicated to heart disease in women with internationally renowned experts and researchers in the field.

We welcome the president of the American College of Cardiology who will focus our minds inward as we consider the burgeoning epidemic of burnout among healthcare providers. The Professor Charles Denbow Young Clinician Award is a testament to our commitment to moving forward, as is the session on digital health and artificial intelligence.

I would like to extend my heartfelt thanks to our sponsors, partners, and the organising committee for their hard work and dedication in making this event possible. Without their support, none of this would be achievable.

My sincerest wish is that we will continue to grow and thrive as a community. I encourage all of you to take full advantage of this conference by engaging fully. It is through our collective efforts that we improve the cardiovascular health of our Caribbean people.

Once again, welcome to Barbados and to CCS 2024. I look forward to an inspiring and productive conference. Enjoy the conference and your stay in Barbados!

Dr Dawn Scantlebury MBBS, DM, FACP, FACC, FSCAI
CCS 2024 Conference Chair
BARBADOS

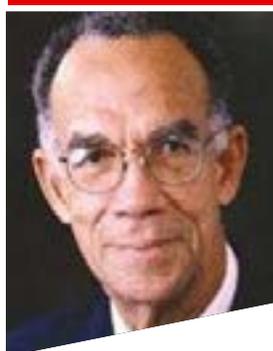
Caribbean Cardiac Society Past Presidents

1989 - 1992



Dr. Donald Christian
JAMAICA

1992 - 1994



Prof. Trevor Hassell
BARBADOS

1992 - 1994



Dr. Roy Tilluckdharry
TRINIDAD & TOBAGO

1994 - 1996



Prof. Howard Spencer
JAMAICA

2000 - 2002



Dr. Yves Donatien
MARTINIQUE

2002 - 2004



Dr. Ivan Perot
TRINIDAD & TOBAGO

2004 - 2006



Dr. Edward Chung
JAMAICA

2006 - 2008



Dr. Conville Brown
THE BAHAMAS

Caribbean Cardiac Society Past Presidents

2008 - 2010



Dr. Martin Didier
ST. LUCIA

2010 - 2012



Dr. Raymond Massay
BARBADOS

2012 - 2014



Dr. Ronald Henry
TRINIDAD & TOBAGO

2014 - 2016



Dr. Henry Steward
CURAÇAO

2016 - 2018



Dr. Richard Ishmael
BARBADOS

2018 - 2023



Dr. Pravinde Ramoutar
TRINIDAD & TOBAGO

Past Honourees

1991

Prof. Mario Garcia Palmieri
Sir Kenneth Stuart
Dr. H.A.L. McShire

1995

Prof. Sir Magdi Yacoub
Dr. Theo Poon King

1999

Dr. S. Sivapragasm
Dr. Winston Ince
Dr. Tarcisio Kroon
Dr. Keith McKenzie
Dr. George Wattley
Dr. Cyril Nelson

2000

Dr. Cecil Bethel

2001

Dr. Donald Christian
Dr. Richard Haynes

2002

Dr. James Ling
Dr. Michael Wooming

2003

Dr. Yves Donatien
Prof. Edwin Besterman
Prof. Howard Spencer

2004

Centre Hospitalier Universitaire
de Fort-de-France

2005

Prof. Trevor Austin Hassell
The Sir Victor Sassoon (Bahamas)

2006

Dr. Knox Hagley
Mrs. Phyllis Francis
Cardiology Unit, University
Hospital of the West Indies

2007

Prof. Gerald Grell
Dr. Dominique Larifla
Dr. Phillipe Cohen-Tenoudji

2008

Prof. Charles Denbow
Mrs. Cynthia Hassett

2009

Dr. Ronald Henry
Dr. Richard Ishmael

2010

Dr. Edward Chung
Mrs. Beverley Dinham-Spencer

2011

The Grenada Heart Foundation

2012

Dr. Mercedes Dullum
Dr. Albert Penco

2013

Dr. Roy Tilluckdharry

2014

Dr. Robert Giugliano

2016

Dr. Conville Brown
Dr. Hafeezul Mohammed

2017

Cleveland Clinic
Community Chest
Dr. Rasheed Rahamaan

2018

Dr. Francois Roques
World Pediatric Project

2019

Dr. Martin Didier
Prof. Charles Gaymes

2021

Dr. Raymond Jeffrey Massay
Dr. William Foster
Dr. Charmaine Scott

2023

Prof. Dabor Resiere



CARIBBEAN CARDIAC SOCIETY

C/O CARDIOLOGY UNIT | THE UNIVERSITY HOSPITAL OF THE WEST INDIES
MONA, KINGSTON 7 | JAMAICA W.I.

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Tribute to Dr. George Martin Didier – Caribbean Cardiac Society

Dr. Martin Didier was a beloved member and Past President of the Caribbean Cardiac Society (CCS) and served the society with humility, kindness and professionalism. An astute clinician, Dr. Didier specialised in Internal Medicine and Cardiovascular Diseases. He became a member of the Caribbean Cardiac Society in 1988, during the early years of the organisation. He remained an active member since, serving as Council member over many years and helping to establish the CCS as a regional voice working towards reducing the burden of cardiovascular disease throughout the Caribbean.

Dr. Didier was actively involved in ensuring the growth of the society by forging ties of affiliation between the CCS and other regional and international organisations such as the Inter-American Society of Cardiology (IASC) and the European Society of Cardiology (ESC) to name a few. During his term as President of the CCS from 2008 - 2010, he worked to establish the CCS as the Caribbean chapter of the European Society of Cardiology. He was among the first group of CCS members to be elected as Fellow of the American College of Cardiology (ACC) through the CCS as the official Caribbean chapter of the ACC. Dr. Didier was also the first Saint Lucian to be elected to Fellowship in the ACC and one of the first two Saint Lucians to be elected to Fellowship in the ESC. He worked to maintain and strengthen the Anglo-Francophone link for medical cooperation that made many procedures available to our patients in the English-speaking Caribbean, at a time when options were very limited or non-existent. He also worked tirelessly on various committees to ensure that the scourge of cardiovascular disease in our region was not overlooked by the relevant authorities. In 2019, Dr. Didier was honoured by the CCS, for his decades of sterling service to the society and to the region.

Dr. Didier was a people person and was able to share his experience with cardiovascular disease in Saint Lucia and the region on many of these different platforms. He encouraged young residents and other Internal Medicine specialists to participate in the activities of the CCS. Whether residents, fellows or colleagues, Dr. Martin Didier was a gentleman to all who interacted with him. Notwithstanding his knowledge and expertise, his warming smile and demeanour and his humility made it easy for all to talk, learn and share experiences. He was a mentor to many, and to several others, a dear colleague and friend. To one of the icons of Caribbean medicine, we salute you Dr. Martin Didier, and bid you farewell.

President

Dr. Marilyn Lawrence-Wright

Vice President

Dr. Taarik Dookie

Secretary

Dr. Kurlene Cenac

Treasurer

Dr. Jeanice Stanley-Jean



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37TH CCS CONFERENCE SCHEDULE

**WEDNESDAY
JULY 24TH**

PRE-CONFERENCE

📍 Standard Distribution, Wildey, St. Michael & Virtual (YouTube)

'Crop over, Culture and Cardiac Disease- Linkages and Solutions'

Public Outreach Session

MODERATOR



Shane Sealy

PANELLISTS



Dr. Yanique Hume
UWI Department of Cultural Studies



Dr. Marilyn Lawrence-Wright
CCS, UHWI



Dr. Kenneth Connell
HCC, NCD commission



Dr. Dawn Scantlebury
QEH, CCS, HSFB

6:30-7:00	Arrivals	
7:00-7:05	Shane Sealy	Introduction to event, Introduction of Panel
7:05-7:15	Yanique Hume	The four pillars of culture
7:15-7:45	Rest of panel	Roundtable opening
7:45-9:00	Town Hall	Discussion, Audience Interaction

SEE PANEL DISCUSSION



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*The recommended dose of JARDIANCE is 10 mg taken orally once daily. JARDIANCE may be taken at any time of the day with or without food, and without dose titration.**

References:

- JARDIANCE (empagliflozin). Product monograph. A108K03 June 2021; 0278-18 May 2023; 0278-19&21 July 2023; 0278-22&23 Jan 2024.
 - Packer M, Anker SD, Butler J, et al. Cardiovascular and Renal Outcomes with Empagliflozin in Heart Failure. *N Engl J Med.* 2020;383(13):1413-1424.
 - Anker SD, Butler J, Filippatos G, et al. Empagliflozin in Heart Failure with a Preserved Ejection Fraction. *N Engl J Med.* 2023;389(16):1452-1461.
 - Wagdy K, Nagy S. EMPEROR-Preserved: SGLT2 inhibitors breakthrough in the management of heart failure with preserved ejection fraction. *Glob Cardiol Sci Pract.* 2021(3):e202117.
- In the EMPEROR-Preserved trial, a randomised, double-blind, parallel-group, placebo-controlled study of 9988 patients with HFpEF, the efficacy and safety of JARDIANCE 10 mg (n=2997) were evaluated vs placebo (n=2991). The primary endpoint in the EMPEROR-Preserved trial was a composite of CV death or HHF, analysed as time to the first event. Patients treated with JARDIANCE experienced a 21% RRR in this endpoint (HR: 0.79; 95% CI: 0.69, 0.90; p < 0.001).
- In the EMPEROR-Reduced trial, a randomised, double-blind, parallel-group, placebo-controlled study of 3730 patients with HFrEF, the efficacy and safety of JARDIANCE 10 mg (n=1863) were evaluated vs placebo (n=1867). The primary endpoint in the EMPEROR-Reduced trial was a composite of CV death or HHF, analysed as time to the first event. Patients treated with JARDIANCE experienced a 25% RRR in this endpoint (HR: 0.75; 95% CI: 0.65, 0.86; p < 0.001).

LCV: cardiovascular; LVEF: left ventricular ejection fraction; HHF: hospitalisation for heart failure; eGFR: estimated glomerular filtration rate.

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If you have questions or need information about this article, do not hesitate to write to informacion.medica.mx@boehringer-ingenheim.com



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<https://carib.boehringerclick.mx/lpp>



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PH-PC-MX-109577

DAY 1
THURSDAY
JULY 25TH

Session 1

Hilton Barbados Resort

Interventional Roundtable

MODERATORS



Dr. Dawn Scantlebury
BARBADOS



Dr. Victor Elliott
JAMAICA

9:00-11:30 Exhibitor set up at Hilton

11:30 -1:00	José Manuel Navarro Curacao Tria Medical	Complex PCI in The Caribbean, Importance of OCT and IVL Lunch Session
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1:00-2:00*	Coronary	Cases
2:00-2:30	Electrophysiology	Cases

2:30-3:00 Coffee Break

3:00-3:30	Paediatric and Structural Heart Disease	Cases
3:30-3:45	Regional Collaboration, Industry Issues	CCS Interventional Group
3:45-4:00	Wellness in the cath lab	Panel Discussion Dr. Cathleen Biga Dr. Dawn Scantlebury Dr. Racquel Gordon Dr. Victor Elliott

*Times are approximate

Opening Ceremony

Hilton Barbados Resort

MASTER OF CEREMONIES



Dr. R. Jeffrey Massay
BARBADOS

KEYNOTE SPEAKER



Sir Trevor Hassell
BARBADOS

6:00	National Anthem of Barbados
6:03	Opening Remarks: Dr Marilyn Lawrence-Wright: President, Caribbean Cardiac Society
6:10	Greetings from the ACC: Ms Cathleen Biga- ACC president
6:15	Introduction of the Featured Speaker: Dr. Dawn Scantlebury
6:18	Keynote I, Feature Address: Sir Trevor Hassell
6:48	Roll call: Dr Kurlene Cenac, Secretary Caribbean Cardiac Society
6:55	Vote of Thanks: Dr Racquel Gordon, Council Member Caribbean Cardiac Society

Reception follows immediately after



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- Dyslipidemia
- Chronic Coronary Syndrome
- Heart failure



DAY 2
FRIDAY
JULY 26TH

Session 2

8:00am - 10:25am

 Hilton Barbados Resort

**Heart Failure I: Four percent of us!
 Why does everyone need to know
 about cardiac amyloidosis?**

MODERATORS



**Dr. Dawn
 Scantlebury**
BARBADOS



**Dr. Marilyn
 Lawrence-Wright**
JAMAICA



**Cathleen
 Biga**
USA

KEYNOTE SPEAKER

SPEAKERS



**Dr. Selma
 Mohammed**
USA



**Dr. Jocelyn
 Inamo**
MARTINIQUE



**Dr. Aderemi
 Soyombo**
BARBADOS



**Jacqueline
 Pilgrim-Jemmott**
BARBADOS

8:00-8:10: Introduction, Housekeeping

Time	Speaker	Title of Talk
8:10-8:25	Selma Mohammed	Overview of Cardiac Amyloidosis
8:25-8:37	Jocelyn Inamo	A snapshot of Cardiac Amyloidosis from Martinique
8:37-8:49	Aderemi Soyombo	The Barbados experience with PYP scanning
8:49-9:04	Jacquelyn Pilgrim-Jemmott	Cardiac Amyloidosis from a patient and caregiver's perspective. Introduction to the Cardiac Amyloidosis Foundation
9:04- 9:16	Jocelyn Inamo	The Caribbean ATTR-CM registry
9:16-9:25	Panel	Discussion

Keynote II

Time	Speaker	Title of Talk
9:25-9:45	Cathleen Biga President, American College of Cardiology	Balancing Paradise and Pressure: Addressing Burnout Among Healthcare Professionals in the Caribbean
9:45- 9:55	Q&A	Audience

9:55-10:25 Coffee Break / **Poster Session 1-** Heart Failure, Women's Heart Disease

Session 3

10:25am - 11:40am

 Hilton Barbados Resort

Ischaemic heart disease: Is the Caribbean Region being left behind in IHD and STEMI management? Where are we and where is the rest of the world?

MODERATORS & SPEAKERS



**Dr. Marcus
St. John**
USA



Dr. Ronald Henry
TRINIDAD &
TOBAGO

SPEAKERS



**Dr. Michael
Chin**
GUYANA



**Dr. Mahendra
Carpen**
GUYANA



**Dr. Joaquin
Azpilicueta**
SPAIN

Time	Speaker	Title of Talk
10:25-10:37	Michael Chin	The one year all cause in-hospital mortality rate in patients with STEMI at Georgetown Public Hospital Corporation Cardiac Intensive Care Unit
10:37-10:52	Marcus St. John Baptist Health	From Champagne to Mauby. Disparities in STEMI management.
10:52-11:07	Ronald Henry	Caribbean STEMI project- Where are we today?
11:07-11:19	Mahendra Carpen	The five-year outcome of Coronary Interventions in the British Virgin Islands
11:19-11:31	Joaquin Azpilicueta Elixir Medical ^l	Description of the Bio-Adaptor DynamX
11:31-11:40	Panel	Discussion

Session 4

11:40am - 1:30pm

 Hilton Barbados Resort

MODERATOR



Dr. Taarik Dookie
TRINIDAD &
TOBAGO



Dr. Sherry-Ann Brown
USA



Dr. Raul Mitrani
USA



Dr. Marina Bersaoui
SURINAME



Dr. Anthony Fletcher
USA

SPEAKERS

Time	Speaker	Title of Talk
11:40-11:55	Sherry-Ann Brown	Innovations in Cardio-oncology
11:55-12:10	Raul Mitrani UHealth	New therapeutic paradigm for patients with atrial fibrillation
12:10-12:22	Marina Bersaoui	Does a single bout of low intense isometric or moderate intense aerobic exercise elicit postexercise hypotension in a population of African and South-Asian descent?

12:22- 1:30 **Lunch sponsored by Novartis**

Session 5

1:30pm - 3:00pm

 Hilton Barbados Resort

Paediatric and Structural Heart Disease: What is up with all these new fancy procedures? Are cardiac surgeons even relevant these days? The Great Debate

MODERATOR



**Dr. Chrisita
Powlett**
BARBADOS

SPEAKER



**Dr. Nish
Patel**
USA

SPEAKERS



**Dr. Zuyue
Wang**
USA



**Dr. Ernesto
Leon Vallejo**
COLOMBIA



**Dr. Lorena
Montes**
COLOMBIA



**Dr. Tahira
Redwood**
JAMAICA



**Dr. Alejandro
Sanchez**
COLOMBIA

Time	Speaker	Title of Talk
1:30-1:45	Nish Patel Baptist Health	Advances in structural heart disease: Innovations in Heart Valve Treatment
1:45-2:00	Zuyue Wang	Mitral Regurgitation: What's the cause, how to treat?
2:00-2:12	Ernesto Leon Vallejo Clinica Imbanaco	Percutaneous pulmonary valve implantation in the RVOT- How did we do?
2:12-2:24	Lorena Montes Hospital Internacional de Colombia	Impact of Cardiovascular Centres of Excellence on Heart Patients Experience, Management and Results
2:24-2:36	Tahira Redwood	Overview of Structural and Adult Congenital experience in the Region.
2:36- 2:51	Alejandro Sanchez Medtronic	Understanding Bio-prosthesis Performance After TAVI Based on Its Design: Lessons Learned from the Smart Trial
2:51-3:00	Panel	Discussion

Session 6

3:00pm - 3:45pm

 Hilton Barbados Resort

The Professor Charles Denbow Clinical Case Competition

MODERATOR



**Dr. R. Jeffrey
Massay**
BARBADOS

SPEAKERS



**Dr. Kemar
Kerr**
JAMAICA



**Dr. Joshua
Greaves**
BARBADOS



**Dr. Cheyanne
Francis**
BARBADOS

Time	Speaker	Title of Talk
3:00- 3:10	Dr. Kemar Kerr	At The 'Heart' of a Bleeding Conundrum; Heyde Syndrome
3:10-3:15	Q&A	
3:15- 3:25	Dr. Joshua Greaves	A Case Presentation of a Spontaneous Coronary Artery Dissection in A Middle-Aged Female
3:25-3:30	Q&A	
3:30-3:40	Dr. Cheyanne Francis	'Peering into Pressure: Unveiling Pulmonary Hypertension via Ocular Clues'
3:40-3:45	Q&A	

3:45-4:15 Coffee break/ **Poster Session 2-** Structural heart disease and Imaging

4:15-4:20 Announcement of Denbow Competition Winner

4:20-6:00 Members only: Annual General meeting-

7-9:30 Awards Banquet



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DAY 3
SATURDAY
JULY 27TH

Session 7

8:30am - 9:25am

 Hilton Barbados Resort

**Electrophysiology:
 Focus on atrial fibrillation**

MODERATOR



**Dr. Mahendra
 Carpen**
 GUYANA

SPEAKERS



**Dr. Christian
 Adams**
 COLOMBIA



Dr. Rogeolle Morris
 BARBADOS,
 CANADA



**Dr. Luis
 Saenz**
 COLOMBIA



Dr. Lana Boodhoo
 TRINIDAD &
 TOBAGO

6:15- 7:00	A Taste of Taiji Wellness activity at Hilton (exact location TBD)
7:30- 8:30	Breakfast Novartis breakfast session invitation only
8:00-8:30	Exhibit Hall open

Time	Speaker	Title of Talk
8:30-8:42	Christian Adams Fundación Valle del Lili	Establishing a Center of Excellence for Integrated Atrial Fibrillation Care: from primary care to advanced interventions
8:42-8:56	Rogeolle Morris	Atrial Fibrillation Registry in the Caribbean
8:56-9:08	Luis Saenz Fundación Cardioinfantil	New Indications for Catheter Ablation of AF: From the Guidelines to Clinical Practice
9:08- 9:20	Lana Boodhoo	Cardiac Arrhythmias in young cannabis users: a case series
9:20-9:25	Panel	Discussion

Session 8

9:25am - 11:30am

 Hilton Barbados Resort

Heart Failure 2

MODERATOR



**Dr. Selma
Mohammed**
USA

SPEAKERS



**Dr. Edward
Contreras Zuniga**
COLOMBIA



**Dr. Felix
Nunura**
JAMAICA



**Dr. Se-Sergio
Baldew**
SURINAME



**Dr. Dabor
Resiere**
MARTINIQUE



**Dr. Rachel
Andrew**
DOMINICA

Time	Speaker	Title of Talk
9:25- 9:37	Edward Contreras Zuniga Clinica de Occidente	Indication for cardiac resynchronization therapy
9:37-9:49	Felix Nunura	Simultaneous initiation of quadruple therapy for heart failure with reduced ejection fraction: initial experience in Afro Caribbean Jamaican population
9:49- 10:01	Se-Sergio Baldew	Developing a Heart Failure Management Program at the Thorax Center Paramaribo in Suriname: The first steps
10:01- 10:13	Dabor Resiere	Prognostic Factors for Severe Dengue with Multivisceral Failure in Patients Admitted to Intensive Care Units (ICUs): A Prospective Study in Martinique
10:13-10:25	Rachel Andrew	Post partum Cardiomyopathy Masquerading as Asthma Exacerbation: A Critical Case Report
10:25- 10:30	Panel	Discussion

10:30- 11:30 **Brunch**

Session 9

11:30am - 12:20pm

📍 Hilton Barbados Resort

Digital Health and AI- What on earth is artificial intelligence anyway? How can it help us in the care of the cardiac patient?

MODERATOR



Dr. Lana Boodhoo
TRINIDAD &
TOBAGO

SPEAKERS



Dr. Diego Joya
COLOMBIA



Dr. Ioannis Chatzizisis
USA



Dr. Shellice Sairras
SURINAME



Dr. Navi Muradali
TRINIDAD &
TOBAGO

Time	Speaker	Title of Talk
11:30-11:42	Diego Joya Fundación Clínica Shaio	Innovation in medicine: Experience of real telemedicine
11: 42-11:57	Ioannis Chatzizisis UHealth	AI in Cardiovascular Medicine
11:57-12:09	Shellice Sairras	The effect of a mobile application in heart failure management in Suriname
12:09- 12:13	Navi Muradali	Exploring Attitudes Towards the Use of AI-Assisted Wellness Apps in Trinidad & Tobago: A Digital Health Perspective
12:13- 12:20	Panel	Discussion

Session 10

12:30am - 2:00pm

📍 Hilton Barbados Resort

Women's Heart Disease: What's so different about the heart of a woman?

MODERATOR



**Dr. Dawn
Scantlebury**
BARBADOS



**Dr. Aderemi
Soyombo**
BARBADOS

SPEAKERS



**Dr. Niti
Aggarwal**
USA



**Dr. Kristen
Callender**
BARBADOS



**Dr. Ijeoma
Isiadinso**
USA



**Dr. Odayme
Quesada**
USA

Time	Speaker	Title of Talk
12:30- 12:45	Niti Aggarwal	Women are from Venus.... Why study heart disease in women?
12:45-12:57	Kristen Callender	Peripartum Cardiomyopathy in the 21st Century: A Case Report and Literature Review
12:57-1:12	Ijeoma Isiadinso	Cardiovascular Disease Prevention in Women
1:12-1:27	Odayme Quesada	Ischemic Heart Disease in Women is more than just Blocked Arteries: Approach to ANOCA and MINOCA
1:27-1:45	Panel	Discussion

2:00 End of Day 3 Sessions.

2:30 pm Social Event: Meet in Lobby of Hilton for transport to Shallow Draught.

8:00 pm: Return to Hilton lobby

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DAY 4
SUNDAY
JULY 28TH

Session 11

8:02am - 10:30am

 Hilton Barbados Resort

**Hypertension, Cardiac Rehab and
 Cardiometabolic medicine**

MODERATOR



Dr. Pravinde Ramoutar
**TRINIDAD &
 TOBAGO**

KEYNOTE SPEAKER



**Dr. Jeroen
 Bax**
NETHERLANDS

SPEAKERS



**Dr. Kenneth
 Connell**
BARBADOS



**Dr. Colette
 George**
BARBADOS



**Dr. Kristen
 Callender**
BARBADOS



**Dr. Suma
 Alluri**
CURAÇAO



**Dr. Dabor
 Resiere**
MARTINIQUE

Time	Speaker	Title of Talk
8:02- 8:17	Kenneth Connell	AI in Hypertension: From COVID to Continuing Care!
8:17- 8:32	Colette George	Amiodarone-induced thyroid disease
8:32-8:44	Kristen Callender	Hyperthyroid Heart Disease in Barbados: A Review and Summary of Real-World Clinical and Echocardiographic Data
8:44- 8:56	Suma Alluri	Pilot study of Hypertension and Neutrophil Lymphocyte Ratio (NLR) variations in the Afro-Caribbean population of Curaçao

Time	Speaker	Title of Talk
9:08-9:20	Dabor Resiere	Long-term exposure to Sargassum-seaweed in the French Caribbean Islands: Clinical characteristics, consequences and outcome cardiovascular effects
9:20- 9:25	Panel	Discussion

Keynote II

Time	Speaker	Title of Talk
9:25-9:45	Dr. Jeroen Bax	The Rise of Imaging in Interventional Cardiology
9:45- 9:55	Q&A	Audience

10:00- 10:30 **Coffee Break**

10:30-4:45 ECG workshop (see following page)

4:45- 4:50 Instructions for CME, Final remarks, Adjourn

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Session 12

10:30am - 4:45pm

 Hilton Barbados Resort

ECG course

ECG WORKSHOP

10:30- 10:35	Welcome
10:35-10:50	Introduction and History of the ECG
10:50-11:00	How to perform an ECG
11:00-11:20	Hands on Session
11:20-11:35	The electrophysiologic basis of the ECG
11:35-11:50	Components of the Normal ECG; Waves, Segments and Intervals
11:50-12:10	Systematic approach to reading an ECG
12:10-1:00	Lunch
1:00-5:00	Interactive learning
1:00-1:15	Rate and rhythm
1:15-1:45	<i>Interactive session: A 70-year-old woman with intermittent palpitations ECG: ECG: tachyarrhythmia</i>
1:45-2:00	<i>The ECG in the evaluation of chest pain.</i>
2:00-2:30	Interactive session: A 60- year-old man with intermittent chest pain. ECG: Ischaemia/ Infarction
2:30-3:00	Break
3:00-3:15	Bradycardias
3:15-3:45	<i>Interactive session: 65-year-old woman with intermittent syncope. ECG: bradyarrhythmia</i>
3:45-4:00	Chamber Hypertrophy
4:00- 4:20	<i>Interactive session: Doc, I can't lie down flat at night: A 55-year-old man presents with shortness of breath. ECG: Ventricular hypertrophy</i>
4:20- 4:30	<i>Assessment- ECG test</i>
4:30- 4:45	Wrap up, Questions, What's next
4:45- 4:50	Instructions for CME, Final remarks, Adjourn

Close, Vote of thanks, Instructions for CME



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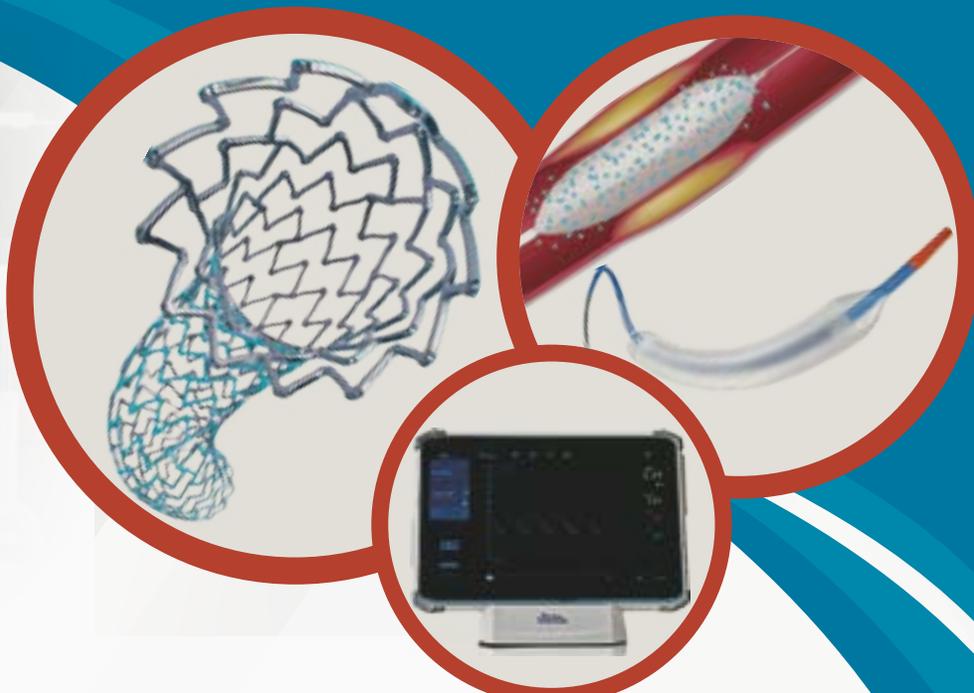
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CCS 2024 Abstracts

ORAL ABSTRACTS

Session II

Overview of Cardiac Amyloidosis.

Selma Mohammed

ATTR-CM (transthyretin amyloid cardiomyopathy) is a progressive, life-threatening condition caused by the deposition of transthyretin protein amyloid fibrils in the heart muscle. This leads to restrictive cardiomyopathy, characterized by the thickening and stiffening of the heart walls, impairing its ability to pump blood effectively. There are two main types: wild-type, which typically affects older adults, and hereditary, caused by genetic mutations. Symptoms often include heart failure, arrhythmias, and peripheral neuropathy. An overview of cardiac amyloidosis with specific focus on ATTR-CM is presented.

A snapshot of Cardiac Amyloidosis in from Martinique.

Jocelyn Inamo, Astrid Monfort, Aissatou Signate, Anna-Gaelle Giguët-Valard

Jocelyn.Inamo@Chu-Martinique.Fr

ATTRv V122I, with the substitution of isoleucine for valine at position 122, is present almost exclusively in individuals of African ancestry with an allele frequency around 3.5%. It results in occurrence around 60 years of age of a severe cardiomyopathy (ATTRv-CM). In Martinique, a French Caribbean Region, a program for active detection and management of Amyloidosis has been put in place since 2010, based on a collaborative team including notably cardiologists, imaging specialists, pathologists, neurologists, hematologists, genetic counsellors, geneticians, patients' associations, and two national networks for Rare Diseases. Consequently, we designed an observatory to collect data on all the patients included in this program.

We present here data collected from the first 271 patients included in this observatory. 118 patients were included retrospectively (patients died before the starting of the observatory), 115 retro-prospectively (patients still alive at the starting), and 38 were prospective patients. Male patients were overrepresented (139, 51.3%). Mean age at diagnosis was 69.7 \pm 23 years. Final diagnosis included: hereditary TTR Cardiac amyloidosis (139, 51.3%), wild-type (22, 8.2%), ATTR CA with no conclusive genetic study (45, 16.6%), AL amyloidosis (12, 4.4%), undetermined Cardiac Amyloidosis (33, 12%), and non-amyloid hypertrophic cardiomyopathy (23, 8.5%).

Patients with hereditary TTR CA had a significant reduced survival compared to wild-type TTR CA. Also, patients diagnosed in the era of available targeted medications past 2018 had a better prognosis compared to patients of the historic cohort.

In conclusion: Martinique, a French Caribbean region, exhibits a high frequency of ATTR Cardiac Amyloidosis in line with the allele frequency expected of V122I variant. This variant carries a worse prognosis. Overall, prognosis improved with recent advances in management and treatment.

Single center experience in 99m Technetium Pyrophosphate Imaging in patients suspected to have cardiac amyloidosis in Bridgetown, Barbados.

Aderemi Soyombo, Raymond Massay, Richard Ishmael, Dawn Scantlebury, Andrew Porte

Cardiac Amyloidosis is a highly prevalent and underdiagnosed cause of heart failure especially in the Caribbean where up to 4% of the population may be affected. Majority of patients who have cardiac amyloidosis have myocardial deposits formed from misfolded light chain (AL) or transthyretin (TTR) proteins. The diagnosis and differentiation between the types is important for prognosis and therapy. The high sensitivity and specificity of 99m Tc -bone compound scintigraphy using pyrophosphate to diagnose cardiac ATTR amyloidosis non-invasively has been confirmed in many studies and specifically its ability to differentiate it from AL amyloidosis.

We present an overview of the PYP amyloid scans performed from November 2021 to July 2024 at Nuclear Medicine Barbados, a private testing facility. Our data represents a minority of patients with suspected amyloidosis due to the many challenges we face in evaluating patients in our resource limited setting. Genetic testing for confirmation and differentiation of the ATTR amyloid subtypes and access to affordable therapeutic options are not readily available in Barbados. Creating awareness in primary care and collaboration within the Caribbean region is critical to devising strategies to collectively combat this disease process.

Cardiac Amyloidosis from a patient and caregiver's perspective. Introduction to the Cardiac Amyloidosis Foundation.

Jacquelyn Pilgrim-Jemmott

Carib TTR: A Collaborative Project to combat Transthyretin Amyloidosis in the Caribbean region.

Jocelyn Inamo, Anna-Gaelle Valard-Giguet, Astrid Monfort, Kurlene Cenac, Dawn Scantlebury, Raymond Massay, Marilyn Lawrence Wright, Handel Emery, Lana Boodhoo, Taarik Dookie, Jeanice Stanley-Jean, Aurelien Darrigol, Loic Emboule, Magalie Vatin

Transthyretin Amyloidosis represent a significant health concern in the Caribbean region, impacting a substantial portion of its population. Within an estimated 4.5 million inhabitants, 35,000 individuals are expected to develop a severe amyloid cardiomyopathy in their sixth decade of life. These estimates are inferred from an expected allele frequency of 3.5% for the V122I pathogenic variant and a penetrance of 10 to 30% in variant carriers.

Given the diverse socioeconomic, cultural and geographical landscape of the Caribbean region, devising comprehensive strategies to combat this disease requires a multi-faceted approach.

Carib TTR aims to fill this critical gap by fostering collaboration and pooling resources to enhance screening, diagnosis, and treatment of the disease, by:

- Raising awareness in the general public through informational materials (brochures, posters) in hospitals, medical practices, and public awareness campaigns.
- Facilitating capacity-building initiatives, including training programs and knowledge dissemination activities, to empower healthcare professionals in effectively managing Transthyretin Amyloidosis.
- Establishing robust diagnostic infrastructure, encompassing molecular genetics platforms and advanced imaging techniques, to ensure accurate and timely diagnosis across the Caribbean region.
- Promoting equitable access to treatment modalities, evaluating the efficacy of locally available pharmacotherapies and exploring affordable therapeutic options.
- Fostering interdisciplinary collaboration and knowledge exchange among stakeholders, including healthcare providers, researchers, policymakers, and patient advocacy groups, to catalyze advancements in disease management.
- To develop research programs aimed at enhancing diagnosis and care of patients with transthyretin Amyloidosis.

Such a project requires adequate human, material, logistical, and organizational resources. The Caribbean Cardiac Society and this scientific meeting are particularly well-positioned to kickstart this project.

Keynote

Balancing Paradise and Pressure: Addressing Burnout Among Healthcare Professionals in the Caribbean.

Cathleen Biga, MSN, FACC, President of the American College of Cardiology

Session III

The one year all cause in-hospital mortality rate in patients with STEMI at Georgetown Public Hospital Corporation Cardiac Intensive Care Unit.

M Chin, S Singh, S Agrippa, G Algu, A Bankey, K Ellis, S Ojha, R Gobin, T Haynes, M Carpen

Background: Cardiovascular disease is a leading cause of mortality in Guyana and places a significant burden on the public healthcare system. Guyana's main cardiac referral hospital, the Georgetown Public Hospital Corporation (GPHC), sees most patients who are diagnosed with ST segment elevation myocardial infarction (STEMI). Currently there is no published data on outcomes for STEMI patients and factors affecting outcomes in Guyana.

Objective: The aim of this study was to determine the all cause in-hospital mortality rate of STEMI patients admitted to the Cardiac Intensive Care Unit (CICU) at the GPHC over a 1-year period.

Methods: This is an institutional based, retrospective, cross-sectional study of the all cause in-hospital mortality rate among STEMI patients admitted to the GPHC CICU between 1st July 2022 to 30th June 2023.

Findings: From a sample population of 233 patients, the all cause in-hospital one year mortality rate was found to be 9.4%. The average age was 58 years with a male preponderance (68%), mostly of East Indian descent (73%) and with hypertension (61%) and diabetes mellitus (45%) being the most common risk factors. Only 24% received reperfusion therapy within 12 hours of onset of symptoms. In-hospital mortality was greater in patients who were male, East Indian, between the ages of 60-70 years, had hypertension and did not receive reperfusion therapy.

Conclusions: The all cause in-hospital mortality rate of STEMI patients was found to be 9.4% and most STEMI patients did not receive reperfusion therapy within 12 hours of onset of symptoms.

From Champagne to Mauby. Disparities in STEMI management.

Marcus St. John

Baptist Health, Florida

Dr. St. John gives an overview of management of ST segment myocardial infarction (STEMI), comparing variations in management between differently resourced settings.

The Caribbean STEMI project- Where are we today?

Ronald Henry

Dr. Henry explains the Caricom STEMI network project and reports on the status of the initiative.

The five-year outcome of Coronary Interventions in the British Virgin Islands.

Mahendra Carpen, Evelyn Salapare, Terrence Haynes, Michael Chin, Heskett Vanterpool

Background: Cardiovascular diseases (CVDs) are a leading cause of morbidity and mortality worldwide, including in the British Virgin Islands (BVI).

CVDs accounted for approximately 35% of all deaths in the Caribbean region in 2016, with ischemic heart disease being the leading cause of death. The Bougainvillea Hospital introduced cardiac catheterizations to the BVI in 2018.

Methods: This was a Retrospective Cohort Analysis of all patients having Coronary Angiograms in BVI from October 2018 to October 2023. Data was gathered by review of charts, procedure reports and follow up visits. Data was analyzed using Microsoft Excel and SPSS 2022.

Results: 202 patients had coronary angiograms, 176 (87.13%) via radial access. Normal/No Significant CAD were seen in 54 (26.73%), Single Vessel Disease in 63 (31.19%), Multivessel Disease in 85 (42.08%) patients. Optimal Medical Therapy recommended in 123 (60.89%), Coronary Artery Bypass Graft 16 (7.92%), Percutaneous Coronary Intervention 63 (31.19%). 19 Patients had Multi-Vessel PCI. Only Drug Eluting stents used. 36 patients had multiple stents. The Mean stent diameter was 2.86 mm +/- 0.399 mm, Variance 0.1595. The Mean stent length was 19.37 mm +/- 5.63 mm, Variance 31.68 mm. All patients had TIMI III flow post PCI. Elective patients were discharged within 24 hours. There were NO Death or Readmissions within 30 days, Renal Failure (Dialysis), Hematoma/Bleeding, Pericardial Effusion, Sustained Arrhythmia.

Conclusions: Coronary interventions can be done safely and effectively in a small population with relatively low volume. Managing patients in home country may save resources and enhance patient comfort.

Table 1 Demographic Data

Total number of Patients	n = 202
Age	61.1 +/- 11.6 years
Gender	117 Males, 85 Females
Diabetes	84 /188 (44.68%)
Hypertension	155/189 (82.01%)
Smoking	10 (5.3%)
Dyslipidemia	78 (41.27%)
LV Ejection Fraction	49.4% +/- 16.67

Table 1: The five-year outcome of Coronary Interventions in the British Virgin Islands, Mahendra Carpen

Description of the Bio-Adaptor DynamX.

Joaquin Azpilicueta

Description of the bioadaptor DynamX, a new device for PCI that preserves the coronary physiology and presentation of the 12 and 24 months results of the CRT comparing the bioadaptor with a state of the art DES (Resolute Onyx).

Session IV

Innovations in Cardio-oncology.

Sherry-Ann Brown

New Therapeutic Paradigms for Patients with Atrial Fibrillation.

Raul D Mitrani, MD, FACC, FHRS

Atrial fibrillation (AF) is a worldwide epidemic causing heart failure, strokes, cardiomyopathy and diminished quality of life. Recent trials have shown the importance of risk factor reduction in patients with atrial fibrillation. This includes weight loss for obese patients, alcohol restriction, BP control, treatment of sleep apnea, and exercise. Multiple studies have shown that control of risk factors for atrial fibrillation together with catheter ablation results in greater efficacy and reduced AF burden compared with standard of care + catheter ablation. The recently completed randomized clinical trial-LEAF study showed that overweight/obese patients with AF, who lost at least 3% of body weight, many of whom were placed on GLP1 agonists, had improved results from catheter ablation compared with patients who did not lose weight prior to ablation.

Early rhythm control is superior to rate control for patients with AF and reduces the composite outcome of cardiovascular death, stroke, and heart failure. Multiple studies have shown that catheter ablation is superior to antiarrhythmic drug therapy for patients with AF resulting in lower AF burden and longer AF-free survival time. Pulse field ablation (PFA) is a nonthermal technique now used for AF ablation and results in quicker procedure times and lower potential for collateral damage.

While pulmonary vein isolation is an effective technique for ablation for patients with paroxysmal AF, the success rate for patients with persistent AF, is still around 50-60%. New research on methods to map AF demonstrate critical areas outside the pulmonary veins that can enhance ablation efficacy.

Does a single bout of low intense isometric or moderate intense aerobic exercise elicit postexercise hypotension in a population of African and South-Asian descent? Bersaoui M, Baldew SM, Toelsie J, Goessler K, Van der Hilst Kwame, Cornelissen VA Kernkampweg 5, Paramaribo, Suriname

Introduction: Hypertension (HT) or high blood pressure (BP) is a modifiable independent leading risk factor for global cardiovascular (CV) morbidity and mortality, with higher prevalence rates in populations of African and South-Asian descent. Acute bouts of moderate intensity aerobic exercise have been shown to transiently reduce BP (i.e., postexercise hypotension [PEH]) in Caucasian populations and as such help in the management of BP on a daily basis. However, less is known about the occurrence of PEH in individuals of non-Caucasian origin with results being inconsistent to date. Therefore, we aimed to investigate the effect of a short bout of aerobic or isometric handgrip exercise on PEH 24 hours after exercise in individuals of African and South-Asian descent.

Method: The HYPE²X trial is a randomized controlled crossover trial on PEH performed in adults (18-65 years) of African (n = 30) or South-Asian descent (n = 30) with high normal BP or grade I hypertension. Patients completed three experimental sessions in random order: an aerobic 30-minute treadmill bout at moderate intensity (40-60% of heart rate reserve); an isometric handgrip session at 30% of maximal handgrip strength and a sitting control session. BP was measured before, immediately after

(i.e., post-30 minutes in the lab) and over 24 hours by means of ambulatory BP monitoring after each session. Statistical analyses were performed using linear mixed models. A two-tailed p-value ≤ 0.05 was considered statistically significant.

Results: We included 30 participants of African descent (mean age: 47.67 \pm 10.53 years, 37.5% male, mean baseline SBP and DBP: 142.98 \pm 11.12 mmHg and 87.89 \pm 7.26 mmHg; body mass index: 31.44 \pm 5.21 kg/m², 73% medicated) and 30 participants of South-Asian-descent (mean age: 50.51 \pm 10.51 years, 50% male, mean baseline SBP and DBP: 138.37 \pm 6.88 mmHg/ 85.75 \pm 4.76 mmHg; body mass index: 31.72 \pm 6.23 kg/m², 75% medicated). A single bout of aerobic exercise resulted in a significant immediate systolic and diastolic BP reductions at 30 minutes postexercise in both the individuals of African descent (- 8.23 [-4.18, -12.28], p < 0.001 / -3.44 [-0.56, -6.32], p = 0.05) and individuals of Asian descent (-6.41 [-1.83, -10.98], p = 0.01 / -3.76 [-1.08, -6.45], p = 0.01). However, the effect was not sustained over the 24h our period (p>0.05). No changes were observed after isometric handgrip exercise (p>0.05).

Conclusion: A single bout of moderate intense aerobic or handgrip exercise resulted in a short postexercise BP-lowering effect lasting for 30 minutes, but this was not sustained over the 24h period in the populations of African or South-Asian descent. Therefore, research is needed exploring different intensities, volumes and types of exercise that might result in 24 hours PEH in individuals of non-Caucasian descent.

Session VI

Advances in structural heart disease: Innovations in Heart Valve Treatment

Nish Patel, Baptist Health, Florida

Mitral Regurgitation: What's the cause, how to treat?

Zuyue Wang

Percutaneous pulmonary valve implantation in the RVOT- How did we do?

Ernesto Leon Vallejo

Impact of Cardiovascular Centers of Excellence on Heart Patients Experience, Management and Results.

Lorena Montes, Hospital Internacional de Colombia

Introduction: The Centers of Excellence (C.E.) are programs specialized in a specific health area or pathology created to developed guidelines and pathways of attention to facilitate the patient access, give an integral attention of the pathology with multidisciplinary teams, generate innovating treatments, and improve the experience of the patient before and after any intervention, and the short- and long-term clinical results. They have become especially popular in the cardiovascular disease field.

Patients and Methods: The aim of this study was to analyze the results of the Centers of Excellence (C.E.) created and accredited in our institution in South America, in the Cardiovascular Field: Heart

Failure, ECMO, LVAD, Heart transplant, Myocardial Infarction and Myocardial Revascularization. The centers of Aorta, Congenital of the adult heart diseases and Unique Ventricle, are still in the process of creation, and were not included in the analysis. We present principally the results of the Myocardial Revascularization C.E. because of the prevalence and importance of this surgery worldwide.

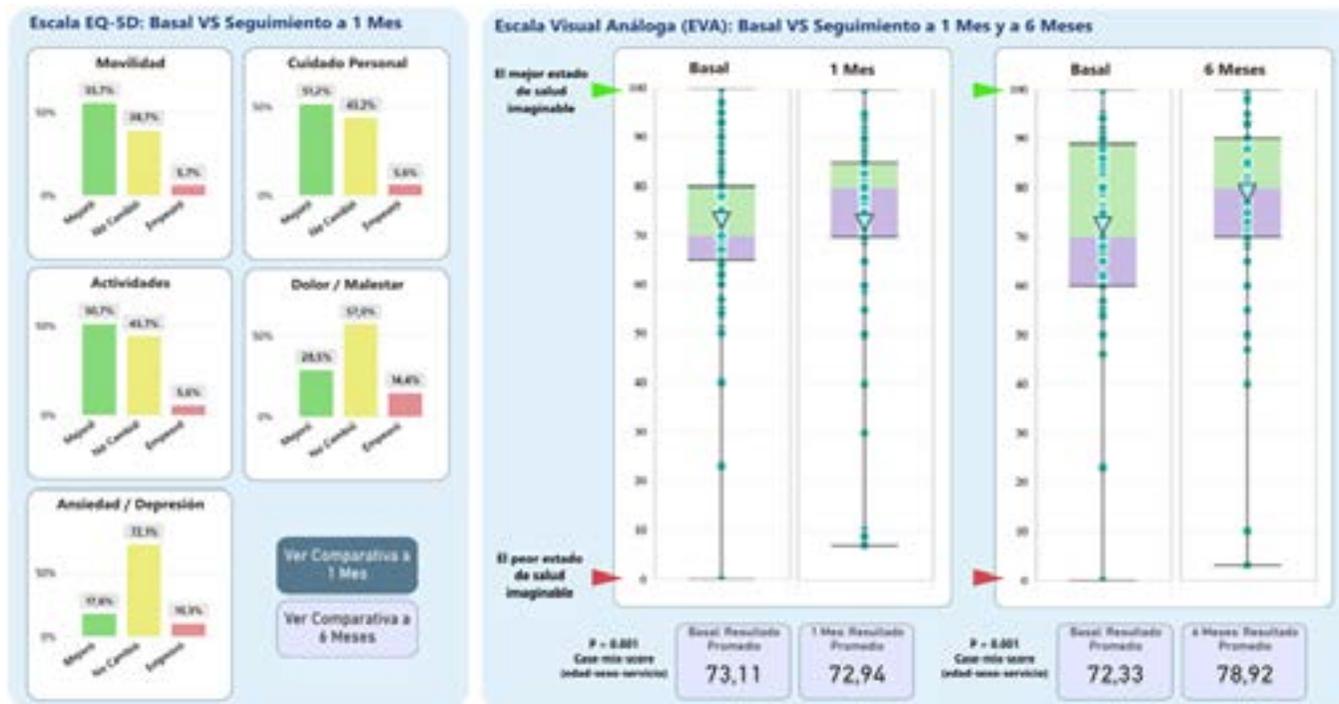
Results: After an analysis of our population, we identified the specific needs, the most prevalent pathologies and the pathologies/procedures that have some difficulty in their processes in terms of access, innovation, results, patient experience, and cost-effectiveness. A minimum of 25 patients in 6 months is obligatory for the creation and maintenance of the C.E. Since the creation of the C.E of Myocardial Revascularization (CABG) the last trimester of 2022 until march 2024, 425 patients have been included, the numbers of CABG have doubled compared to historic (2018: 156, 2019: 164, 2020: 138, 2021: 204, 2022: 204, 2023: 333) with an increase in the complexity of patients and procedures (20% ES2 > 4), and a decreased in complications (Perioperative infarction 0,6%; Stroke 0,7%; Dialysis 0,4%) and mortality (2% (2018-2021) vs 0,3% 2023). OPCAB increased from 10% vs 64%, Arterial CABG from 2% vs 60%, the minimally invasive OPCAB program initiated, and quality intraoperative measures (TTFM) started. In terms of patient's experience was measured in every step and every C.E, showing improvement compared to basal and historic (Fig 1-2 all Heart C.E. Fig 3 CABG C.E.)

Conclusion: In our experience, Heart C.E. improve Access (Volume of patients), clinical results, patient's experience, also leading to improvement of the procedure/innovation offer, increase of investigation and amelioration of cost-effectiveness.

Fig 1-2 (All C.E.)



Fig 3 (CABG C.E.)



Overview of Structural and Adult Congenital in the Region.

Dr. Tahira Redwood

Overview and progress of structural heart disease in the independent English-Speaking Caribbean Countries. Experience with the Balloon-expandable TAVR valve in the Caribbean with reference to the Lndmrk Trial. New and available Congenital and Structural procedures available in the Caribbean.

Understanding Bioprosthesis Performance After TAVI Based on Its Design: Lessons Learned from the Smart Trial

Alejandro Sanchez

This presentation will explore the impact of bioprosthesis design (annular vs. supra-annular) on valve hemodynamic performance and its connection to relevant clinical outcomes, through an in-depth review of the Smart trial results.

Session VI

At The 'Heart' of a Bleeding Conundrum; Heyde Syndrome.

Kemar Kerr

Background

Heyde syndrome is characterised by the inter-association of gastrointestinal bleeding secondary to angiodysplasia and aortic stenosis on the background of acquired von Willebrand disease (avWD).

Clinical Presentation

The case outlined in this paper is one which characterises the above; an 87 yo female, SC, known diabetic, hypertensive with moderate to severe aortic stenosis on echocardiogram who presented with recurrent lower GI bleeds requiring multiple transfusions and hospitalisation.

Diagnostic Evaluation

The patient went on to have bowel evaluation via Upper and Lower GI Endoscopy, CT abdomen before capsule endoscopy finally localised the bleed to be angiodysplasia of the small bowel (jejunum). A repeat transthoracic echocardiogram was also done which showed worsened aortic stenosis compared to the prior. At this point, Heyde syndrome was postulated as a high possibility.

Management/Case Outcome

Same was explained to the patient who was eventually consented and underwent transcatheter aortic valve implantation (TAVI). The procedure was well tolerated and Hb normalised on haematinics thereafter with only 1 episode of a minor lower GI bleed a few months after TAVI. Since then, SC has had nil admissions and nil symptoms/signs of GI bleeding on her multiple follow up consultations. Hence, essentially, aortic valve intervention had high therapeutic efficacy in resolving her lower GI bleed.

Summary/Discussion

GI bleeding associated with Heyde syndrome can be a source of high mortality and morbidity for patients. The Cardiologist's role in diagnosing and therefore prescribing treatment of same with valve intervention is invaluable as this essentially has the most optimal efficacy in curtailing bouts of rebleeding in patients with Heyde syndrome.

A Case Presentation of a Spontaneous Coronary Artery Dissection in A Middle-Aged Female.

Joshua Greaves

Clinical Presentation

A 59-year-old female with a history of psoriatic arthritis presented to the emergency department (ER) following an episode of retrosternal chest tightness radiating to her jaw and left shoulder associated with syncope.

Diagnostic Evaluation

In the ER, an electrocardiogram showed no ST changes, and the troponins were elevated. She was diagnosed with a non-ST elevation myocardial infarction, TIMI score 2. We proceeded to invasive coronary angiography with intent to revascularize as necessary. Angiography revealed generally tortuous coronary arteries. The inferior branch of the first obtuse marginal artery showed a long diffuse smooth narrowing, with 95% diameter stenosis at its most severe extent. The mid-left anterior

descending coronary artery also demonstrated a similar diffuse lesion of 50% diameter stenosis. The overall appearance suggested spontaneous coronary artery dissection (SCAD) type II.

Management and Case Outcome

Given the known risk of poor outcomes with percutaneous coronary intervention in SCAD, her asymptomatic status at the time of the procedure and the small downstream vessels, PCI was deferred. She was maintained on dual antiplatelet therapy, beta blockade and albeit controversial, statin therapy. She remained well during hospitalization without recurrence of chest pain and was subsequently discharged.

Summary

SCAD is a rare type of acute coronary syndrome resulting from nonatherosclerotic, nontraumatic, noniatrogenic separation of the coronary artery wall leading to a false lumen and intramural hematoma formation. It is predominantly seen in women and commonly associated with fibromuscular dysplasia. SCAD presents a clinical conundrum with the underlying mechanisms not fully understood. Given that the patient was stable, we chose a conservative approach in this case, and she had a good outcome.

'Peering into Pressure:' Unveiling Pulmonary Hypertension via Ocular Clues.

Cheyenne Francis

Clinical Presentation:

A 15-year-old female presented with a two-month history of deteriorating vision. She had no known chronic illnesses, but a review of systems revealed a two-year history of exertional dyspnea and intermittent chest pain. Examination showed a lethargic, withdrawn, adolescent in mild cardiopulmonary distress. She exhibited decreased visual acuity, dilated episcleral vessels, elevated intraocular pressures, myopia and a right central retinal vein occlusion with neovascularization and macular oedema. An urgent Paediatric consult was requested, and her physical examination was suggestive of right heart failure.

Diagnostic Evaluation:

Two-dimensional echocardiography revealed an elevated mean pulmonary arterial pressure of 57 mmHg and moderate right ventricular dilatation with systolic function impairment. The right atrium was severely dilated and tense with bowing of the inter-atrial septum into the left atrial cavity. She was assessed as World Health Organisation (WHO) Group 1 Pulmonary Arterial Hypertension with right-sided cardiac failure and assigned a WHO Functional Class of 4.

Management & Case Outcome:

The patient was admitted to the Paediatric ward for medical management and subsequently demonstrated marked clinical improvement. Her functional status improved to WHO Functional Class 2 and she showed synchronous partial resolution of ophthalmic findings.

Summary & Discussion:

This case exhibits a rare, ocular presentation of Pulmonary Hypertension. Increased venous pressure coupled with venous stasis can result in dilation and congestion of the ocular veins and ultimately a myriad of ocular findings. Clinical features of patients with multi-systemic disorders may be atypical or lie outside the perceived organ of origin. Therefore, clinicians must remain astute and have a low threshold for investigation and multidisciplinary referral to avoid misdiagnosis or underdiagnosis of systemic disease.

Session VII

Establishing a Center of Excellence for Integrated Atrial Fibrillation Care: from primary care to advanced interventions.

Christian Adams

Background: Atrial fibrillation (AF) is the most common sustained cardiac arrhythmia, with increasing prevalence in Latin America and the Caribbean (LAC). Despite this, the region faces significant challenges in AF management, including limited access to specialized care, fragmented healthcare systems, and socioeconomic disparities. This presentation outlines the paper and impact of the Center of Excellence (CoE) for Integrated Atrial Fibrillation Care in the LAC region.

We discuss a multidisciplinary, patient-centered CoE models focusing on four key pillars: clinical expertise, research, education, and community engagement. The CoE integrates electrophysiologists, cardiologists, primary care physicians, nurses, and allied health professionals. Key components include a state-of-the-art electrophysiology lab, telemedicine capabilities for remote regions, a research unit focusing on AF epidemiology and outcomes, to design cost / effective, and educational programs for healthcare professionals and patients.

Based in the Colombian and US experience. Preliminary data show a reduction in AF-related hospitalizations and improvement in anticoagulation adherence. Being effective as the Heart failure clinics. Cost-effectiveness analysis suggests significant savings in healthcare expenditures through reduced complications and improved disease management.

The establishment of this CoE represents a paradigm shift in AF care in the LAC region. By providing integrated, evidence-based care and addressing regional challenges, the center improves patient outcomes, enhances professional education, and contributes to the global understanding of AF.

Keywords: Atrial Fibrillation, Center of Excellence, Integrated Care, Latin America, Caribbean, Cardiovascular Health, Healthcare Innovation

Atrial Fibrillation Registry in the Caribbean.

Rogeolle Morris, Andrew Ha

Atrial fibrillation (AF) is the most common arrhythmia worldwide, affecting up to 50 million people. The prevalence of AF is strongly associated with older age; it is estimated to affect 9% of people who are >80 years old. Given the deleterious effect of AF on stroke, heart failure, and quality of life, its impact on health is increasingly recognized as a major global issue. While data on the prevalence, natural history, outcomes, and quality of care have been well-described in North America and Europe, such metrics are poorly characterized in other regions of the world. In addition, the impact of AF on race is not well-described outside of the United States. Accordingly, we sought to develop a registry to describe the prevalence, outcomes, and quality of care among patients with AF who live in the Caribbean islands, a predominantly black population.

Our study objectives include the following: (i) Ascertain the prevalence of AF of people living in the Caribbean; (ii) Identify risk factors associated with AF in people living in the Caribbean (iii) Describe the management of patients with AF; (iv) Examine the use of anticoagulation for AF-related stroke prevention in high-risk patients; (v) Obtain data on quality of life; (vi) Assess cardiovascular outcomes among patients with AF. Upon collection of these outcomes, we plan to compare them to AF patients in Canada to identify potential care gaps in the management of AF patients in the Caribbean.

Study Design: This registry will be implemented in phases. The first phase will be a pilot study examining the prevalence, risk factors, therapies, and outcomes of patients with AF living in Barbados. We propose a retrospective registry of people with AF in Barbados. Patients will be identified by chart review between Jan 1, 2020 to Dec 31, 2021. Barbados has one tertiary care hospital (Queen Elizabeth Hospital) which provides acute care for everyone living on the island. All patients in Barbados who experience AF and who require tertiary care are managed in this institution. Fifty patients with a diagnosis of AF will be identified from the outpatient clinic and emergency department in Queen Elizabeth Hospital. Trained research personnel will abstract information from the clinical charts into care report forms. This pilot registry will be useful for the following reasons: (i) it will allow us to identify challenges with registry-based AF research in Barbados; (ii) it will streamline the data collection process as we will understand the potential challenges and limitations of collecting AF-related data in this part of the world; (iii) it will allow us to develop a database which can then be implemented across multiple institutions; (iv) it will provide us with a “first-look” snapshot of how AF care is delivered in Barbados.

In phase 1 of this registry, patients will be included in the registry if they are ≥ 18 years old and if there is documentation of AF in the clinical chart and confirmed with electrocardiographic proof. Patients are excluded if they are non-residents of Barbados (e.g. travelers). The following information will be collected: (i) demographics and socioeconomic status, (ii) cardiovascular history, (iii) details of AF history (e.g. duration, type), (iv) stroke and bleeding risk, (v) antithrombotic therapy, (vi) medications, (vii) laboratory investigations, ECG data, and echocardiographic information.

Phase 2 of this registry will include 13 Caribbean countries: Antigua and Bermuda, The Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, leveraging the tools and experience accrued from the pilot study.

Relevance and impact

This registry is novel since it will be the first of its kind in the Caribbean. We anticipate that it will provide valuable information on how AF care is delivered for people living in this part of the world. By comparing our data to Canadian ones, we will be able to identify potential differences, disparities, and care gaps in AF care for people living in the Caribbean.

New Indications for Catheter Ablation of AF: From the Guidelines to Clinical Practice.

Dr Luis Carlos Saenz

The burden of AF is significantly increasing, and the related morbidity and mortality is still high despite advances in identification of embolic risk and oral anticoagulation. The traditional care has been aimed to reduce AF related symptoms with beta-blockers to control rate response given that antiarrhythmic medication or catheter ablation for rhythm control had not demonstrated benefit to reduce morbidity and mortality. However, recent randomized control trials have showed that rhythm control therapies as

catheter ablation significantly reduced cardiovascular outcomes when indicated in symptomatic heart failure patients or in high-risk patients after its early instauration within the first year of diagnosis. This new evidence changed the paradigm of treatment in AF patients supporting rhythm control and catheter ablation as first choice treatment in different clinical scenarios, as proposed in the 2024 guidelines.

Cardiac Arrhythmias in young cannabis users: a case series.

Dr Lana Boodhoo; Dr Salman Rasheed. St Augustine Private and San Fernando General Hospitals

Introduction: In December 2022 the possession of small amounts of cannabis was decriminalized in Trinidad and Tobago. We present 3 cases of cannabis-related arrhythmias in young patients who subsequently presented, all of whom habitually smoke cannabis.

Case1: A 16 year old male with no previous illness, and a history of smoking cannabis daily presented with fever, weight loss and fatigue, palpitations and tremor. On examination, he had a goitre. ECG showed atrial tachycardia, 136bpm. Thyroid function confirmed hyperthyroidism, TSH 0.011IU/ml. Carbimazole 15 mg tds and Propranolol 40 mg bd were stated as an inpatient. On day 1 post admission he was found unresponsive, with BP 63/47 mmHg and pulseless. On cardiac monitor he had atrial rate of 140 with ventricular asystole. CPR and external pacing were performed and temporary pacing wire inserted, with subsequent full hemodynamic and cardiovascular recovery. He was subsequently implanted with a dual chamber permanent pacemaker. During follow up he stopped cannabis, remains asymptomatic and in intrinsic sinus rhythm, with no device detected recurrence of AT. He remains hyperthyroid, likely due to noncompliance.

Case 2: A 35 year old male with severe diverticular disease and pectus excavatum was referred for cardiac clearance prior to laparotomy and colon resection. He smoked marijuana daily for pain control. He did not exercise regularly. He was symptomatic of abdominal pain, diarrhoea, constipation, abdominal cramps and constipation. He denied palpitation, chest pain or dizziness. On examination, pulse 41 bpm, BP 134/76. He was biochemically euthyroid. ECG showed ectopic atrial bradycardia 43 bpm, with pr 237 ms. On 24 hr ambulatory ECG this rhythm alternated with sinus rhythm, and heart rates varied from 32-134 bpm. ECHO was normal. As he was asymptomatic, he was cleared for surgery, which was duly performed and during which he remained hemodynamically stable.

Case 3: A 26 year old presented with episodes of light-headedness while standing. His work involved heavy exertion but salt and water intake were adequate. He smoked cannabis daily. On examination pulse varied from 48-55 bpm, resting BP 146/89 and standing 131/85. ECG showed sinus bradycardia and marked sinus arrhythmia. Routine labs and echo were normal. On 24 hr ambulatory ECG has noted to have sinus bradycardia alternating with ectopic atrial rhythm, with heart rates varying from 30-142 bpm. After a 6 week period of abstinence from cannabis he was less symptomatic and repeat Holter showed lower arrhythmia burden.

Conclusion: Cannabis associated arrhythmias may be highly variable and may be confounding especially in conjunction with other medical conditions. Cannabis use should be actively excluded in young patients presenting with a combination of brady and tachyarrhythmias.

Indication for cardiac resynchronization therapy

Edward Contreras Zuniga

Session VIII

Simultaneous initiation of quadruple therapy for heart failure with reduced ejection fraction: initial experience in Afro Caribbean Jamaican population.

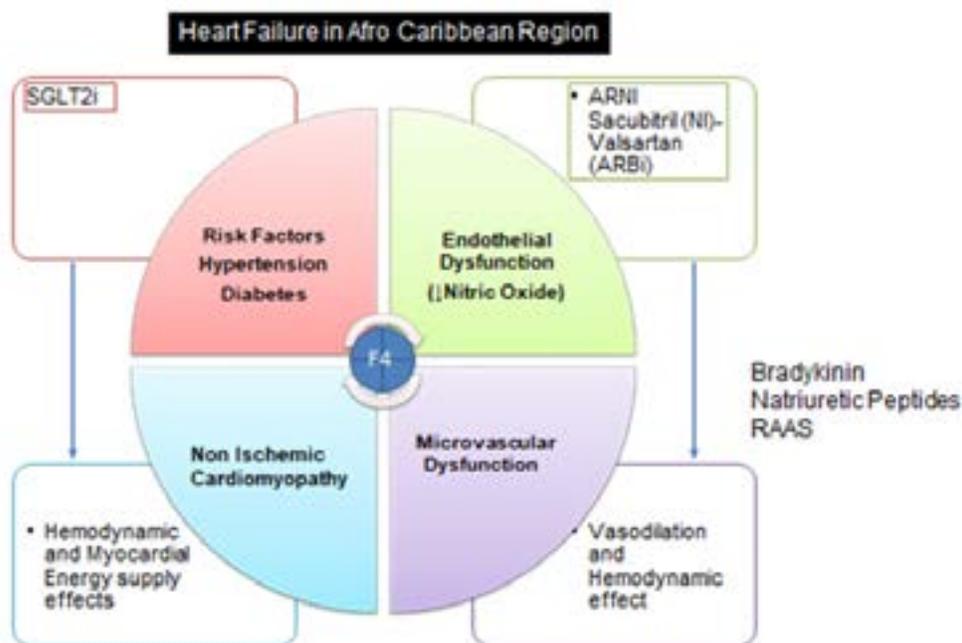
Nunura Felix, Campbell Delani

Background: Among Afro Caribbean Jamaican patients with heart failure with reduced ejection fraction (HFrEF), improvements in cardiac function associated with simultaneous initiation of quadruple therapy, have not been previously reported and we aimed to assess this special population.

Methods: Combined quadruple therapy (angiotensin-receptor neprilysin inhibitor, beta-blocker, mineralocorticoid receptor antagonist, and Sodium-glucose cotransporter-2 inhibitors) was simultaneously initiated in 120 Afro Jamaican patients with HfrEF from the Heart Institute of the Caribbean. Patient data was consecutively recorded in our electronic medical records. Changes in Ejection fraction (EF) and N-terminal pro b-type natriuretic peptide (NT-ProBNP) levels, were evaluated after 90 days and statistically analysed during this two-year study.

Results: Patient mean age was 63 \pm 12.7 years old, 68% male, with mean Body Mass index (BMI) 32.2 \pm 6.7 Kg/m². Hypertension was observed in 62.5 %, T2Diabetes Mellitus in 31.7%, and history of old myocardial infarction in 15.7 %. Atrial fibrillation was present in 7.8% and left bundle branch block in 16.5 %. Other cardiomyopathies (idiopathic, peripartum and non-compaction) were noted in 16.6 %. After the quadruple therapy for a median follow-up period of 90 days, significant improvements of cardiac function were achieved. The mean NT pro-BNP level was significantly decreased from a Baseline of 3111.21 pg/mL \pm 4535 to 1806.6 \pm 2265.3 pg/ml. A mean change in NT Pro BNP of 1305 pg/mL \pm 5069 ($p < 0.001$). The mean left ventricle ejection fraction (LVEF) improved from a baseline of 33.4 % \pm 7.8 to 44.4 % \pm 10.9. A mean change in LVEF of 11.3% \pm 9.1 ($p < 0.001$). Notably, an improvement of $>10\%$ in the LVEF was observed in 41.5% of the total population. In a separate analysis, the subgroup with T2 Diabetes mellitus showed more pronounced (mean change in EF 9.1% \pm 11.0) improvement in LVEF than the non-diabetic (mean change in EF 7.7% \pm 11.7) but no significant differences in the change of the NT pro-BNP levels were noted between both subgroups. The most frequent therapy adverse effect was hypotension (13.63%) followed by cough (6.81%) and kidney dysfunction (2.27%) but none of the patients presented Angioedema.

Conclusion: Among Afro Caribbean Jamaican patients with heart failure and reduced ejection fraction, simultaneous initiation of the quadruple therapy was demonstrated to be feasible, well tolerated and associated with significant functional improvement.



Nunura Felix, 2022

Developing a Heart Failure Management Program at the Thorax Center Paramaribo in Suriname: The first steps

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Background: Heart Failure (HF) affects 26 million people worldwide. Multidisciplinary HF-management programs (HFMPs) are effective for reducing readmissions, but should be country-specific.

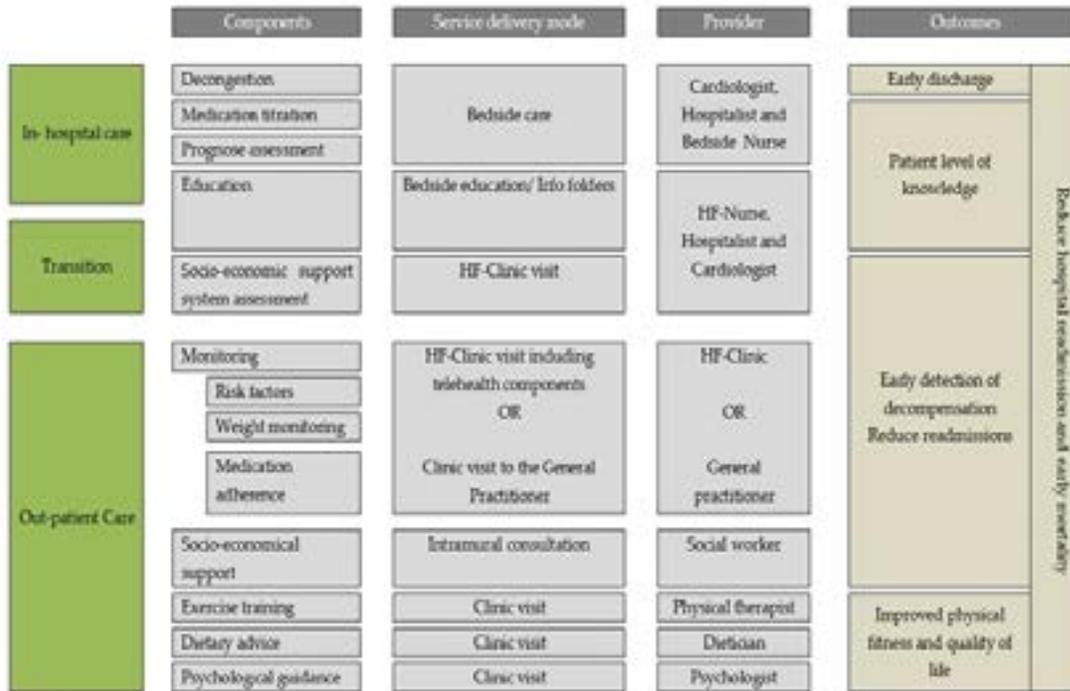
Aim: Describe the development and acceptability of a HFMP at the Cardiology department of the Thorax Center Paramaribo (TCP), Suriname.

Methods: A team (cardiologist, hospitalist, rehabilitation scientist and HF-researcher) developed a framework based on international HF-management guidelines and existing HFMPs. We used the modified Delphi method, consisting of two iterations and a discussion session to reach consensus on the components and its acceptability by the Cardiology department. For both rounds, cardiologists, nurses and hospitalist at the TCP were interviewed using statements and open-ended questions. Only cardiologists were involved in the discussion session.

Results: Twenty participants [11 cardiologists, 6 hospitalists, 3 nurses, 50% women, median of years working experience: 7 (1-30 years)] of TCP were included. Consensus was reached on the included disciplines, the role of the general practitioner and the HF-clinic in monitoring the NYHA I to III patients, and the framework was finalized (Figure 1). Barriers that should be targeted for effectively implementing the HFMP were lack of a HF-specialized cardiologist to coordinate the HFMP and specialized HF-nurses, dispersion of disciplines across different locations, and the out-of-pocket-costs.

Conclusion: We established a framework for a HFMP in Suriname, but need to invest in human resources and training specifically to provide specialized care and coordinate the HFMP. We still need to describe the roles of other included disciplines, referral and interdisciplinary communication procedures and do a cost-benefit analysis.

Figure 1: The Heart Failure Management Program framework



Prognostic Factors for Severe Dengue with Multivisceral Failure in Patients Admitted to Intensive Care Units (ICUs): A Prospective Study in Martinique

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Introduction: Dengue fever is recognized as the most widespread vector-borne disease globally, with its transmission rate increasing more than eightfold over the last two decades. While most cases manifest with mild to moderate symptoms, approximately 5% of patients develop severe disease. Although the mechanisms are not fully understood, immune-mediated activation leading to excessive cytokine expression is suggested as a cause of the critical findings in severe cases: increased vascular permeability, potentially leading to shock, and thrombocytopenia and coagulopathy, which can induce hemorrhage. Risk factors for severe disease include prior infection with a different serotype, specific genotypes associated with efficient viral replication, certain genetic polymorphisms, and comorbidities such as diabetes, obesity, and cardiovascular disease. The World Health Organization recommends careful monitoring and prompt hospitalization of patients with warning signs or a propensity for severe

disease to reduce mortality. This review aims to update the diagnosis and management of patients with severe dengue in the intensive care unit.

Objective: Since the onset of the dengue epidemic in Martinique in July 2023, over 55,000 cases have been diagnosed, with nearly 800 hospitalizations in Martinique and Guadeloupe. Among these, 83 severe cases required ICU admission due to multivisceral failure, exhibiting hematological, cardiovascular, and hepatic impairments upon admission. To date, 13 fatalities have been directly attributed to the dengue epidemic in these two French Departments of America. This study aims to comprehensively evaluate the clinical characteristics, prognostic factors, and complications associated with severe dengue cases.

Methods: This prospective study was conducted in the medical intensive care unit of CHU of Fort de France, encompassing all patients admitted since July 2023 with a confirmed diagnosis of dengue. The diagnosis was determined through early tests employing gene amplification (RT-PCR) or NS1 antigen detection, as well as late tests revealing specific IgM and IgG antibodies. Data are presented as median [extremes] or percentages.

Results: Between July 1, 2023, and May 2024, a total of 370 patients (195 males, 175 females; median age 51 years [31-70]) were managed for dengue, with 43% undergoing RT-PCR testing, revealing serotype 2 in 100% of cases. Out of these patients, 114 (38%) required hospitalization. Among them, 34 patients (28 males, 8 females; age 56 years [18 months-77]) presented with severe dengue fever. Notably, nine patients (38%) had pre-existing morbidities such as sickle cell disease, diabetes, heart failure, chronic alcoholism, epilepsy, or encephalitis. The cohort included two children and one pregnant woman. Tragically, fourteen patients succumbed to multiple organ failure (33%), acute myocarditis (12%), refractory hypoxemia (13%), severe organ failure such as kidney injury (15%), or cerebral hemorrhage (8%).

Conclusion: This study underscores the potential severity of dengue fever, with initial warning signs such as digestive disorders or dyspnea possibly heralding organ failure in the emergency department. Important biological indicators of severity include acute myocarditis, hepatitis, and profound thrombocytopenia. Despite intensive care, the prognosis remains guarded, with a mortality rate of 30%. These findings emphasize the importance of continued research and vigilance in managing severe dengue cases during epidemics.

Post partum Cardiomyopathy Masquerading as Asthma Exacerbation: A Critical Case Report
Dr. Rachel Andrew, Dr. Navin Patil, Dr. Precious Anthony, Dr. Shanti Gurung, Dr. Delia Graham-Durand, Andarz Abedini,

Background: Postpartum cardiomyopathy (PPCM) poses a diagnostic challenge, particularly in women with pre-existing respiratory conditions like asthma, where symptoms may overlap. We present a case emphasizing the importance of considering cardiac etiologies in postpartum women with respiratory distress.

Case Presentation: A 27-year-old postpartum woman with a history of bronchial asthma presented with severe respiratory distress and hypotension. Following a delayed second stage, she achieved a

normal spontaneous vaginal delivery at 40+1/40 weeks on 14 October 2022, following an uncomplicated pregnancy. Two months later, she began experiencing progressive shortness of breath. Initially managed as an asthma exacerbation, her symptoms persisted despite treatment. This deterioration led to her admission to the hospital. Subsequent investigations ruled out pulmonary embolism, and echocardiography revealed postpartum cardiomyopathy (PPCM).

Conclusion: This case underscores the critical need to differentiate between asthma exacerbation and cardiac causes, particularly PPCM, in postpartum women. Early cardiology referral and echocardiographic evaluation are essential for timely diagnosis and management, averting potential complications. Heightened awareness of PPCM in differential diagnoses, especially in patients with pre-existing respiratory conditions, is paramount to prevent misdiagnosis and ensure optimal patient outcomes. Additionally, recognizing the exacerbating effect of beta-agonists on heart failure symptoms is crucial in managing such cases effectively.

Keywords: Postpartum cardiomyopathy, Respiratory distress, Beta Agonists

Session IX

Innovation in medicine: Experience of real telemedicine

Diego Joya

Fundación Clínica Shaio

AI in Cardiovascular Medicine

Ioannis S. Chatzizisis MD, MSc, PhD, FACC, FAHA, FSCAI

Artificial intelligence, computational simulations, and extended reality, among other 21st century computational technologies, are changing the health care system. To collectively highlight the most recent advances and benefits of artificial intelligence, computational simulations, and extended reality in cardiovascular therapies, we coined the abbreviation AISER. The review particularly focuses on the following applications of AISER: 1) preprocedural planning and clinical decision making; 2) virtual clinical trials, and cardiovascular device research, development, and regulatory approval; and 3) education and training of interventional health care professionals and medical technology innovators. We also discuss the obstacles and constraints associated with the application of AISER technologies, as well as the proposed solutions. Interventional health care professionals, computer scientists, biomedical engineers, experts in bioinformatics and visualization, the device industry, ethics committees, and regulatory agencies are expected to streamline the use of AISER technologies in cardiovascular interventions and medicine in general.

The effect of a mobile application in heart failure management in Suriname

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Introduction: Heart failure (HF) management can include mobile application interventions for optimizing self-management behavior and quality of life (QoL). This study assesses the effectiveness of a mobile application, Mi Ati , on the HF knowledge, QoL, and self-management in HF patients in Suriname.

Methods: A stratified randomized controlled trial was conducted in participants with HF decompensation in the past 12 months. The intervention group (Mi Ati + usual care) used the app weekly to: 1. receive six education sessions and messages, 2. enter body weight and blood pressure data, and 3. Conduct a symptom check survey. The control group continued with their usual care. Main outcomes measured at baseline and 90 days: QoL, HF knowledge, and self-management measured using the Minnesota Living with Heart Failure Questionnaire (MLHFQ), the Dutch Heart Failure Knowledge Scale, and the Self-Care of Heart Failure Index (SCHFI), respectively.

Results: 91 participants (46 intervention, 45 control) completed the study. Both groups showed statistical significant improvement in HF knowledge, self-care and QoL over time, but no difference between groups. The intervention group showed statistically significant improvement of the MLHFQ physical subdomain compared to control ($p=0.18$). Those who used the app $\geq 50\%$ of the time (58.2% of the intervention group) significantly improved in the SCHFI subdomains self-care maintenance and confidence compared to control ($p=0.01$ and $p=0.05$, respectively).

Conclusion: Utilization of the Mi Ati app showed favorable physical QoL, self-care maintenance and confidence over time compared to usual care. Further research is needed to enhance app engagement in order to achieve better post HF outcomes.

Exploring Attitudes Towards the Use of AI-Assisted Wellness Apps in Trinidad & Tobago: A Digital Health Perspective

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Background

The adoption of AI-assisted wellness apps has witnessed a surge globally, yet little is known about the attitudes towards their utilisation in the Caribbean region. Understanding these attitudes is crucial for tailoring interventions and maximising the potential impact of such apps in promoting health and well-being.

Methods

This study utilised a mixed-methods approach, combining quantitative surveys and qualitative interviews, to investigate attitudes towards the use of AI-assisted wellness apps in Trinidad & Tobago. Participants were recruited from diverse socio-demographic backgrounds from users on a popular wellness app to ensure representation across Trinidad & Tobago.

Results

Our findings shed light on the diverse attitudes towards the use of AI-assisted wellness apps in Trinidad and Tobago. While some individuals expressed enthusiasm and openness toward incorporating such technology into their health routines, others exhibited skepticism and concerns related to privacy,

reliability, and cultural relevance.

Conclusions

The study underscores the importance of considering the varied attitudes towards AI-assisted wellness apps in Trinidad & Tobago. To foster greater acceptance and adoption, interventions should address concerns related to privacy and cultural relevance while emphasising the potential benefits of these technologies in promoting health and well-being. Tailoring AI-assisted wellness apps to the unique needs and preferences of Caribbean users holds promise for enhancing digital health initiatives in the region.

Session X

Women are from Venus.... Why study heart disease in women?

Niti Aggarwal

Peripartum Cardiomyopathy in the 21st Century: A Case Report and Literature Review of the Pathophysiology and Clinical Trials for Novel Disease-specific Therapeutics

Kristen Callender M.D., Lee-Ann Briggs M.B.B.S. The Queen Elizabeth Hospital, Martindale's Road, Bridetown, St. Michael

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Clinical Presentation

A 25 year old gravida 2 para 1 female with a history of asthma, presented 4 months postpartum complaining of worsening exertional dyspnea, orthopnea, and bilateral leg swelling that began 2 weeks post caesarean section. Exam findings were consistent with acute decompensated heart failure (HF).

Diagnostic Evaluation

Echocardiography revealed a dilated cardiomyopathy, left ventricular ejection fraction (LVEF) of 20%, severe right ventricular systolic dysfunction, moderate tricuspid regurgitation, and a left ventricular apical thrombus (4cm²). Left ventricular end-diastolic diameter (LVEDD) was 5.9 cm.

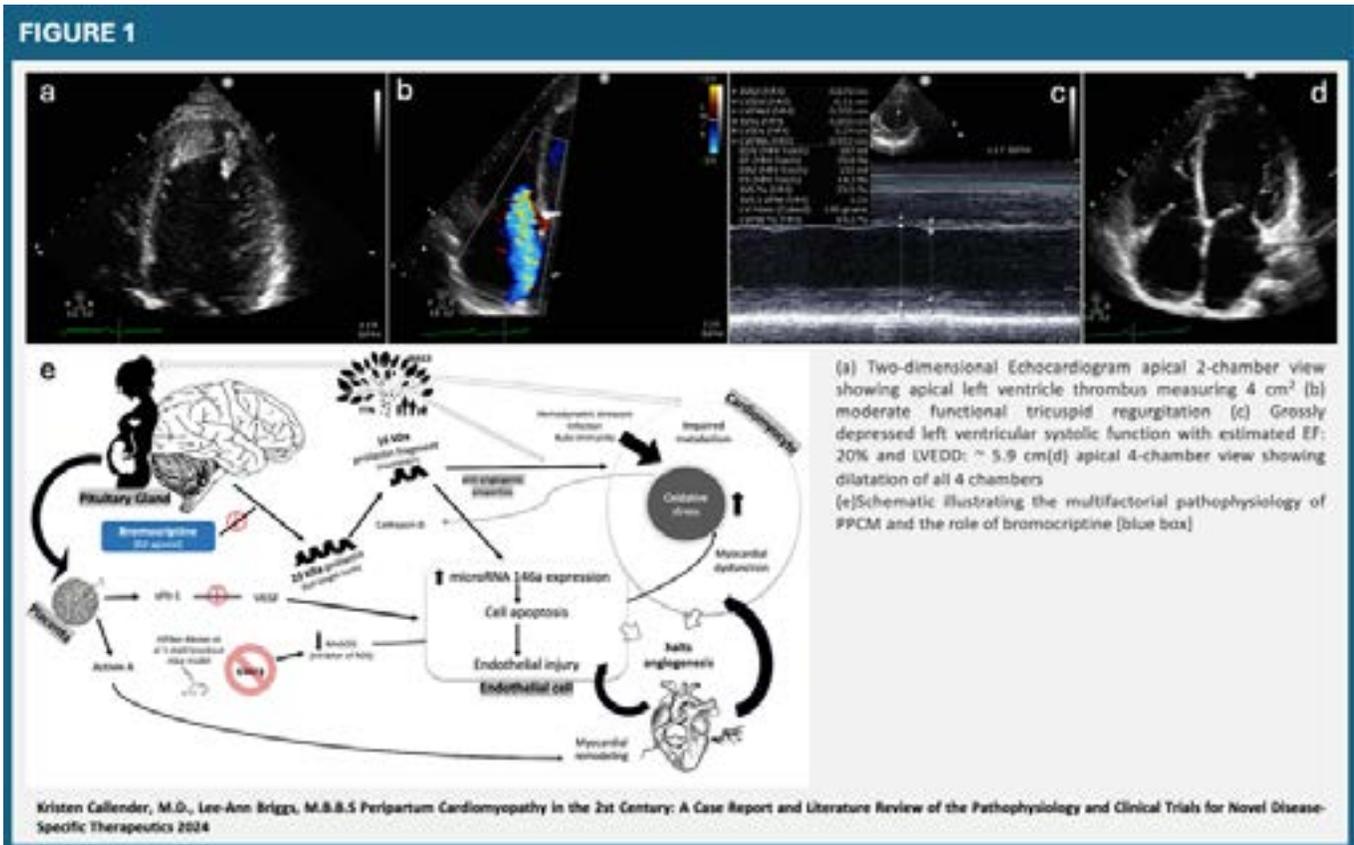
Management and Case Outcome

Standard guideline-directed medical therapy for HF with reduced ejection fraction, intravenous diuretic and direct oral anticoagulant were initiated. On Day 14, she was discharged after an uneventful hospital course. At 4 months follow-up, she was euvolemic, functionally New York Heart Association Class I, with an LVEF of 45% and complete resolution of thrombus. Anticoagulation was discontinued.

Summary/Discussion

Peripartum cardiomyopathy represents a rare manifestation of idiopathic systolic heart failure founded on a complex interplay of genetic predisposition, vasculo-hormonal interactions and hemodynamic stress. Recently, a 16 kilodalton prolactin fragment, Cathepsin D, micro-ribonucleic acid 146a

upregulation, placental proteins and oxidative stress were named key mediators in the pathogenesis. Our case highlights a favorable outcome despite poor prognostic factors: index LVEF <35%, right ventricular systolic dysfunction, increased LVEDD, black race, multiparity and LV thrombus. This article features a comprehensive review of the proposed pathophysiological underpinnings and clinical trials for disease-specific therapeutics, primarily bromocriptine. Gaps in evidence and ripe areas for future research are identified.



Cardiovascular Disease Prevention in Women

Ijeoma Isiadinso

Ischemic Heart Disease in Women is more than just Blocked Arteries: Approach to ANOCA and MINOCA

Odayme Quesada

Session XI

AI in Hypertension: From COVID to Continuing Care!

Kenneth Connell

Amiodarone-induced thyroid disease

Colette George

Amiodarone, a commonly used antiarrhythmic drug, contains 37.5% iodine by weight. Each 200 mg tablet contains 75 mg iodine and the iodine released into the bloodstream is 20-50 times the recommended daily allowance of iodine. Amiodarone affects the thyroid both by direct cytotoxic effects and because of the large iodine load.

Additionally, it is very lipophilic with a large volume of distribution and has a long half-life. This means that the effects of amiodarone on the thyroid may start and/or persist long after the drug has been discontinued.

The effects of Amiodarone on the thyroid includes its effect on the thyroid function tests which has implications for the interpretation of thyroid function in a patient on this drug. It may cause hypothyroidism which is called amiodarone induced hypothyroidism (AIH). It may also cause thyrotoxicosis- amiodarone induced thyrotoxicosis (AIT)- by different mechanisms leading to AIT-1, AIT-2 or a mixed picture.

Using clinical cases, this session will look at the approach to Amiodarone-induced thyroid disease.

Hyperthyroid Heart Disease in Barbados: A Review and Summary of Real-World Clinical and Echocardiographic Data

Kristen Callender

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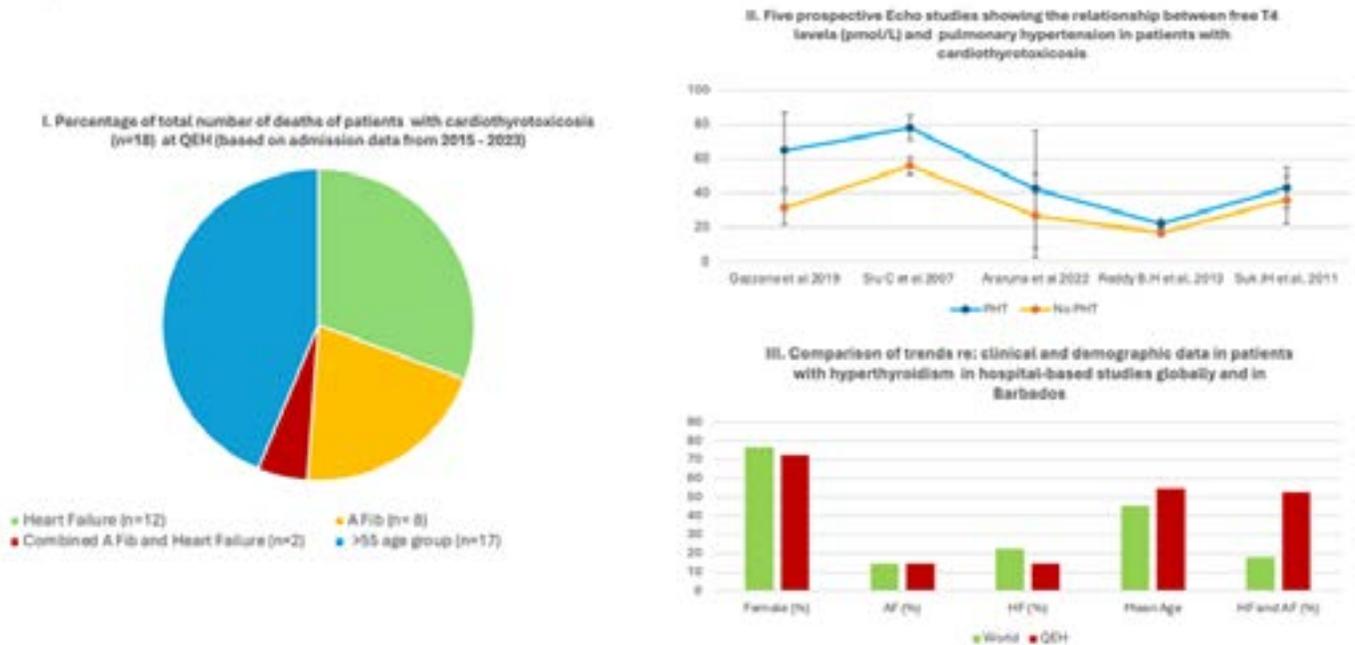
Background: Cardio-thyrotoxicosis describes the well-established myriad of cardiovascular complications of hyperthyroidism. However, paucity of research worldwide, particularly in Barbados addresses characteristic echocardiographic (Echo) parameters indicative of hyperthyroid heart disease (HHD). This review highlights its prevalence in Barbados and summarizes pre-existing data and evidence gaps.

Methods: Records of hyperthyroid patients admitted to the Queen Elizabeth Hospital (QEH) between 2015 to 2023 were reviewed. A review of articles reporting clinical & echocardiographic data associated with hyperthyroidism from Google Scholar was conducted.

Results: 262 hyperthyroidism admissions to the QEH were recorded over an 8-year period. 25% had thyro-cardiac disease with a female preponderance. The proportion of heart failure (HF), atrial fibrillation or both was 15.3%, 15.6% and 5.3% respectively. Highest mortality involved HF (28%) and > 55 age (94%) groups. Our data is consistent with hospital-based data from Asia, Africa and Europe. Authors unanimously report under-representation of right ventricle (RV) structure and hemodynamics. Five prospective echo studies focused on discrepancies with or without pulmonary hypertension; all but one excluded RV parameters. Other parameters are inconsistent and are often reported as categorical variables. Substantial gaps in evidence include 1) the relationship between biochemical status and gravity of echo characteristics 2) differentiation between overt and subclinical echo parameters and 3) the prognostic value of RV dysfunction.

Conclusion: There's a need for large-population, hospital-based prospective studies reporting comprehensive, consistent Echo data in Barbados and globally. A standard of Echo parameters at baseline and with progression is crucial for a preventative and prognostic strategy in HHD.

Figure 1



Pilot study of hypertension and Neutrophil Lymphocyte Ratio (NLR) variations in the Afro-Caribbean population of Curaçao

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Keywords: hypertension, Neutrophil Lymphocyte Ratio (NLR), Afro-Caribbean

Background: Hypertension (HTN) requires effective strategies in the prevention and treatment of cardiovascular disease. Neutrophil to Lymphocyte Ratio (NLR) is a potential indicator of HTN. Studies demonstrated that a higher NLR in HTN is associated with higher mortality and with resistant HTN compared to controlled HTN.

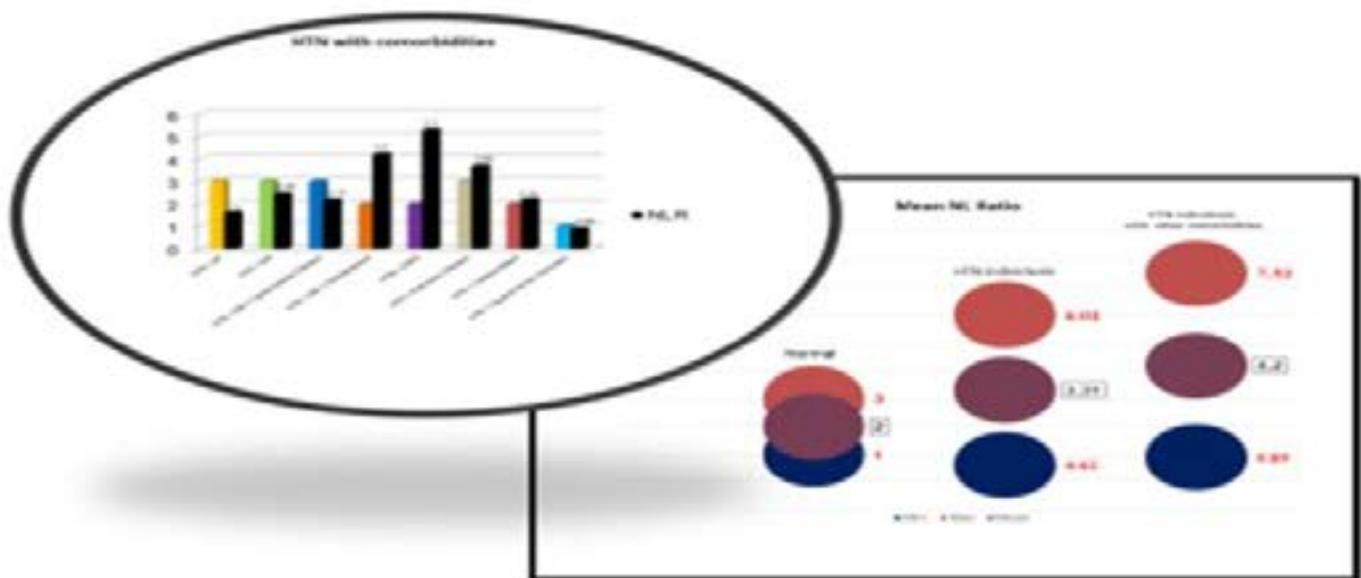
Methods: Pilot study of hypertensive patients. Age, gender and aetiology were collected retrospectively. Inclusion criteria were primary or secondary hypertension with Complete Blood Count (CBC). Exclusion criteria included high Erythrocyte Sedimentation Rate or C-Reactive Protein and no CBC before treatment. NLR was calculated as neutrophils divided by lymphocytes count. Patients were categorized into Elevated, HTN Stage I, HTN Stage II and Hypertensive crisis based on the American Heart Association guidelines.

Results: Forty-two patients were included (comorbidities n=11). 26 females and 16 males, the NLR for

HTN patients Elevated, Stage 1, Stage 2 and Hypertensive crisis 2.06, 2.87, 2.50, and 2.20. The mean NLR ratio for Essential HTN was 3.31 (0.62-6.01), rising to 4.20 (0.89-7.52) for those with comorbidities. Mean NLR age wise < 40years 3.94, 40-60 years 3.52 and >60 years 2.24.

Conclusion

Mean NLR is highest at 2.87 in stage 1 HTN and lower in later stages. In HTN with comorbidities mean NLR was 2.97 highest at 4.20 in HTN with Pulmonary Pathology. NLR is higher in male than female patients and in patients less than 40 years. Present study shows a distinct variation of NLR in gender, age, HTN stages and HTN with comorbidities



Long-term exposure to Sargassum-seaweed in the French Caribbean Islands: Clinical characteristics, consequences and outcome cardiovascular effects.

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Objectives: Evaluate the clinical characteristics, cardiovascular effects, and consequences of long-term exposure to noxious gas emissions from decomposing Sargassum in the local population of Martinique.

Since 2010, there has been an unexplained increasing invasion of Sargassum on the coast of Caribbean countries. During four years, health officials in French Caribbean Guadeloupe and Martinique reported more than 150.000 cases of population intoxication due to noxious gas emission, namely hydrogen sulfide (H₂S) and ammoniac (NH₃), from decomposing Sargassum. While the acute effects after exposure to high H₂S concentrations are well described, the association between long-term exposure and health events is unknown. Preliminary research indicates that exposure to these compounds may trigger inflammatory responses and oxidative stress, both of which are established contributors to cardiovascular disease. We analyzed also air quality data in sargassum-affected regions and conducted epidemiological studies to evaluate the incidence of cardiovascular, respiratory and neurological pathologies among exposed populations

Methods: From March 2018 to December 2022, we conducted a prospective follow-up of a patient cohort admitted to the emergency department (University Hospital of Martinique) due to exposure to sargassum. Patients were managed according to the protocol established by the Research Group on Sargassum in Martinique. We assessed the patient's exposure to Sargassum and air pollutants based on recordings of coastline sensors measuring H₂S and NH₃ levels and data from the Regional Air Quality Observatory. Demographics and clinical data (including cardiovascular, neurological, and respiratory events) were collected.

Results: In the 6-year study period, 560 patients were included (age: 48 \pm 20 years, 250M/310W, history of cardiovascular diseases: hypertension (N=85), diabetes (N=89), asthma (34), chronic renal insufficiency (N=13)). Patients mostly arrived with referral letters from their general practitioner (80%) and presented headaches (76%), developed gastrointestinal disturbances (79%), dizziness (54%), skin lesions (30%), cough (44%), and conjunctivitis (33%). Not all patients were clinically symptomatic. Initial lung function tests were regular (50%). Ten patients were admitted to the intensive care unit. Our findings reveal a significant correlation between exposure to decomposing sargassum and an increase in cases of hypertension, and other cardiovascular disorders.

Discussion: Literature reports several deaths due to acute sargassum poisoning, including cases of cardiac arrest, heart disease, cardiac arrhythmia, heart failure, massive pulmonary edema, and asystole. While most studies on chronic exposure focus primarily on respiratory effects, some research highlights significant cardiovascular impacts. Since January 2018, 30 patients have been urgently transferred for heart transplantation due to severe heart failure, with 12 on ECMO (extracorporeal membrane oxygenation) and 12 on amines. Among these, 8 patients were transferred to France, including 6 on ECMO. An increase in myocardial infarction and cardiovascular disease has been observed in these populations.

Conclusions: Our study indicates that the magnitude of health effects following long-term exposure to Sargassum may be larger than previously recognized. Efforts to limit long-term exposure are mandatory. It is crucial to conduct a risk factor analysis in areas most exposed to sargassum seaweed among populations experiencing cardiovascular events. A prospective study is currently underway to identify and define at-risk populations, which will aid in guiding prevention campaigns.

Reference: 1. Finnbjornsdottir RG, et al. *PLoS One*. 2016

POSTER ABSTRACTS

Cardiovascular disease: Trends, triggers, care and outcome. Are we turning the bend?

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Introduction: Cardiovascular diseases (CVD) are a major public health concern in the Caribbean. Cardiovascular care in the Caribbean revealed encouraging improvements but still less than expectations. This study aims to gain insight into CVD and identify gaps in cardiovascular care in the Caribbean compared to high income countries. More specifically, this review reports on the epidemiology, CVD risk factors, management practices, and patient outcomes [quality of life (QOL) and mortality]. A systematic review of peer-reviewed articles was conducted to assess the CVD of individuals in the Caribbean from 1959 to 2022.

Methods: Using multiple search engines and keywords, a systematic review of relevant peer-reviewed CVD articles was conducted using the necessary inclusion and exclusion criteria. Relevant data of studies were classified by title, publication year, location, type and size of samples, and results. Further analysis grouped patients by epidemiological profile, CVD risk, management, and selected outcomes (quality of life and inpatient mortality).

Results: From the initial review of 1,553 articles, 36 were analysed from Trinidad and Tobago (20), Barbados (4), Jamaica (7), along with the Bahamas (2), British Virgin Islands (1), Bonaire (1) and one article from a Caribbean study. Age-standardized incidence rates (ASIRs) for acute myocardial infarction (AMI) ranged from 67–123 per 100,000, (Japan: 55.2–63.1 per 100,000), with sex and ethnic differences: Indo-Trinidadian men, 141, and Afro-Trinidadian women, 45 per 100,000 populations. The mean age of patients with AMI from Caribbean studies over the last three decades varied between 58 and 71 years (Japan: 70 \pm 13 years). The Cardiovascular risk in the national population is lower than that in the CAD/AMI population, but much higher than Canada and China. Depression (PHQ-9 > 9) among chronic disease patients was 28.3% and among hospitalised patients with cardiac disease was 40.0%. The social environment of fast food, sedentary jobs, and stress determinants are postulated to be precursors for an increase in CV risks. Medication compliance rates were 61.2% among cardiac clinic patients, 44% among hypertensive patients, and among cardiac clinic patients 78.3% did not adhere to the treatment. For ACS patients, mean pre-hospital delay time varied between 7.5 hours to 18 hours (UK: 6.1 \pm 12.9 hours), with approximately 56% of patients presenting within 12 hours. A single study reported 52.5% of patients achieved a door-to-ECG time of less than 10 mins, a median door to needle time of 70 min, with 8.2% of patients having a door to needle time of less than 30 min. A single study reported 57.5% of patients underwent thrombolysis within 30 min. Prescribed pharmacological treatments ranged from 42% to 97%. Primary angioplasty is limited only to the private sector in Trinidad and Tobago. Little or no attention has been paid to cardiac rehabilitation or counselling. In-hospital AMI death rates were 6.18 % (M) and 7.2% (F) to 19% (Netherlands: 3%). The overall QOL of the AMI survivors improved over time in a single study. For CAD patients moderate to severe depression was 34.3% (US: 18.7%).

Conclusion: CVD in the Caribbean reveals a high prevalence of CV risks, suboptimal care, poor compliance, and high inpatient mortality compared with high-income countries. Greater efforts are required to improve CVD care at all stages, including in the social environment.

Keywords: Cardiovascular disease, epidemiology, Cardiovascular risks, Cardiovascular care, Coronary artery disease, Acute myocardial infarction, outcomes

Mean platelet volume - a Novel Biomarker in Various Cardiac Diseases

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Background: Cardiac diseases pose a global health challenge, necessitating the identification of biomarkers for early detection and management. Inflammation plays a role in many cardiac diseases, highlighting the need for inflammatory markers. We propose Mean platelet volume (MPV), as a promising inflammatory biomarker in cardiac diseases.

Methods: Complete Blood Count reports were collected and observed in treatment-naive patients from January 2021 to January 2023, particularly in those having cardiac diseases (Myocardial infarction {MI}, Pericarditis, Myocarditis, and Atrial fibrillation {Afib}), respective changes in MPV counts were observed and tallied. This prospective study investigated the correlation of MPV with various cardiac diseases, considering the age and sex disparities.

Results: The study comprised 87 inpatients with cardiac diseases, the patients with MPV values exceeding 11 fl are as shown on the graph.

The incidence of MPV more than 11fl in the present study is as follows:

50% of Afib exhibited the highest MPV 12.1fl (male 75 yrs).

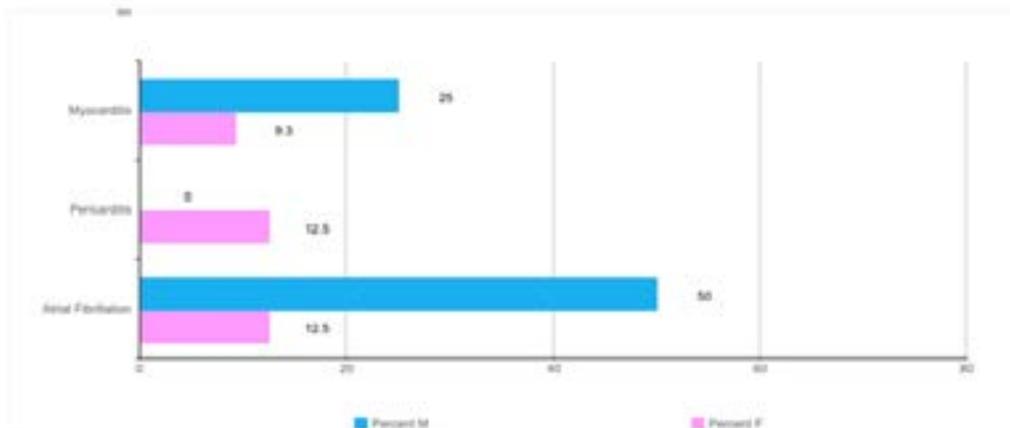
18.8% of Myocarditis had the highest MPV of 11.3fl in both genders, (average 21.5 yrs).

11.9% of Pericarditis showed the highest MPV 11.9 fl (female 18yrs)

12.4% MI recorded the highest MPV of 11.9 fl in both genders (average 47.5 years).

Conclusion: Based on our evidence and the strong association of platelets in the pathophysiology of cardiac diseases we conclude MPV has significance in the following order Afib, Myocarditis, Pericarditis, and MI. Age, sex, and menopausal status also influence the MPV dynamics. Integrating MPV into clinical practice facilitates personalized preventive strategies and risk stratification.

Patients with MPV > 11 fl



Mean platelet volume - a novel biomarker in various Cardiac diseases, Loveth Igburuke

A Tale of Two Tricuspid Valves

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We present two cases of severe tricuspid regurgitation. Case A is a 66 yr old male who presented with a four month history of fatigue, Grade 2 NYHA symptoms of dyspnoea and bilateral pedal edema. Despite a good appetite he lost 13 lbs in two months. Over this period he developed porridge type diarrhoea occurring four to five times per day, particularly after eating. A trans thoracic echocardiogram revealed an abnormal tricuspid valve with severe tricuspid regurgitation. Based on this finding a definitive diagnosis was entertained which was confirmed by a trans esophageal echocardiogram. Case B is a 72 year old female with a four year history of progressive weight loss. In the last year she had lost 30 lbs. She had been extensively investigated for a potential neoplastic lesion. Thyroid function was normal. She felt well with a good appetite and no symptoms of dyspnoea. A trans thoracic echocardiogram showed an abnormal tricuspid valve with severe regurgitation. A transesophageal echocardiogram revealed severe prolapse of all three leaflets with severe regurgitation. A mass was seen in the superior pericardial reflection in the vicinity of the aortic root. The patient had tricuspid valve replacement with the etiology of the mass to be determined.

Are some cardiomyopathies reversible?

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Clinical Presentation

A 70-year-old female presented to the outpatient cardiology clinic with prolonged palpitations, shortness of breath and paroxysmal nocturnal dyspnea with a known history of diabetes mellitus type II, chronic kidney disease, transient hyperthyroidism (kelp seaweed induced) that transitioned to hypothyroidism eventually and atrial fibrillation. PE: BP 100/60 mm Hg; BMI: 28.8 kg/m²; pulse 80/min irregular; JVP not elevated; irregular heart action with variable S1 pitch, variable splitting S2, S3 present, no S4 and a MI grade 3/6 radiating towards the left axilla and peripheral edema.

Diagnostic Evaluation

The workup revealed an elevated NT- pro BNP (2516 pg/mL), elevated FT4 (1.8 ng/dL) with a normal TSH (1.2 uIU/mL) with a reduced eGFR (43 ml/min/1.73 m²). CA score was zero. ECG showed atrial fibrillation with a fast ventricular response. Echocardiogram revealed dilatation of LV and LA with reduced EF (42%); RV and RA were not dilated; VCI did not collapse.

Management/Case outcome

In this patient, presenting with symptoms of heart failure due to cardiomyopathy, CAD was ruled out. The etiology of her cardiomyopathy was subclinical hyperthyroidism with elevated T4 and normal TSH that lead to atrial fibrillation with a fast ventricular response and a dilated left atrium and left ventricle with a MI grade 3/4. Treatment was prescribed according to heart failure guidelines and rate control. Furthermore, the dosage of Levothyroxine was adjusted. A repeat echocardiogram of the patient showed significant improvement with normal LV function, normalized LA dimension and regression of MI to grade 1/4. Renal parameters also normalized.

Discussion

It's important to normalize the metabolic status of cases presenting with thyroid gland disease and heart failure. This case has proven that a holistic approach in medicine leads to a wholesome outcome.

Heart failure with reduced and declining ejection fraction in an ambulatory cardiology clinic.

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Background: Heart failure with reduced ejection fraction (HFrEF) is associated with a five-year mortality of 50%. Heart transplantation has been proven to improve survival in patients with advanced heart failure refractory to medical therapy. Recent technological advances in donor organ perfusion (TransMedics™ Boston MA) prolong donor heart function before transplantation and could potentially facilitate the availability of donor hearts in underserved Caribbean communities.

Methods: We performed a retrospective review of all patients with heart failure at Premier Heart Care, Trinidad in 2023. Heart failure was defined as a left ventricular ejection fraction (LVEF) less than or equal to 50%.

Results: Seven hundred and seven echo studies (650 patients) were performed in 2023. Fifty patients (7.8%) had heart failure. The LVEF range was 17-50%, mean 36%, median 39%. Six patients (12%) had an LVEF <20%. The mean age was 65 + 13 years, 35 patients (69%) were male.

N=51	No of patients	%
LVEF 40-50%	24	47
LVEF 20-40%	21	41
LVEF <20%	6	12

Serial echos were performed in 38/51 (75%) of these heart failure patients. Twenty-six patients (68%) had improving LVEF, 2 patients (5%) had stable LVEF and 10 patients (26.3%) had declining LVEF.

Conclusion: HFrEF patients accounted for 7.6% of echos in a Caribbean private ambulatory cardiology clinic. In the subgroup with serial echo studies, 26% had declining LVEF. These numbers justify the need for a subspecialty heart failure clinic with follow up studies. This would be useful for identifying patients who could potentially benefit from escalation of therapy including heart transplantation with novel organ perfusion.