

THE LIBYAN CARDIAC SOCIETY (LCS) ESTABLISHED IN 2001

THE LCS NEWSLETTER SEP 2023

Both Hard copies and Electrical
copies are available in the LCS
website (Newsletter section):
Languages: English and Arabic.

The Newsletter aims to publish meaningful content by publishing the society's news and activities, as well as a collection of useful articles and advice on a regular basis that will spread community awareness of the prevention and treatment of cardiovascular diseases.

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جَمْعِيَّةُ الْقَلْبِ اللَّيْبِيَّةِ
LIBYAN CARDIAC SOCIETY



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LIBYAN CARDIAC SOCIETY

THE THIRD EDITION OF THE LIBYAN CARDIAC SOCIETY NEWSLETTER

SEP 2023



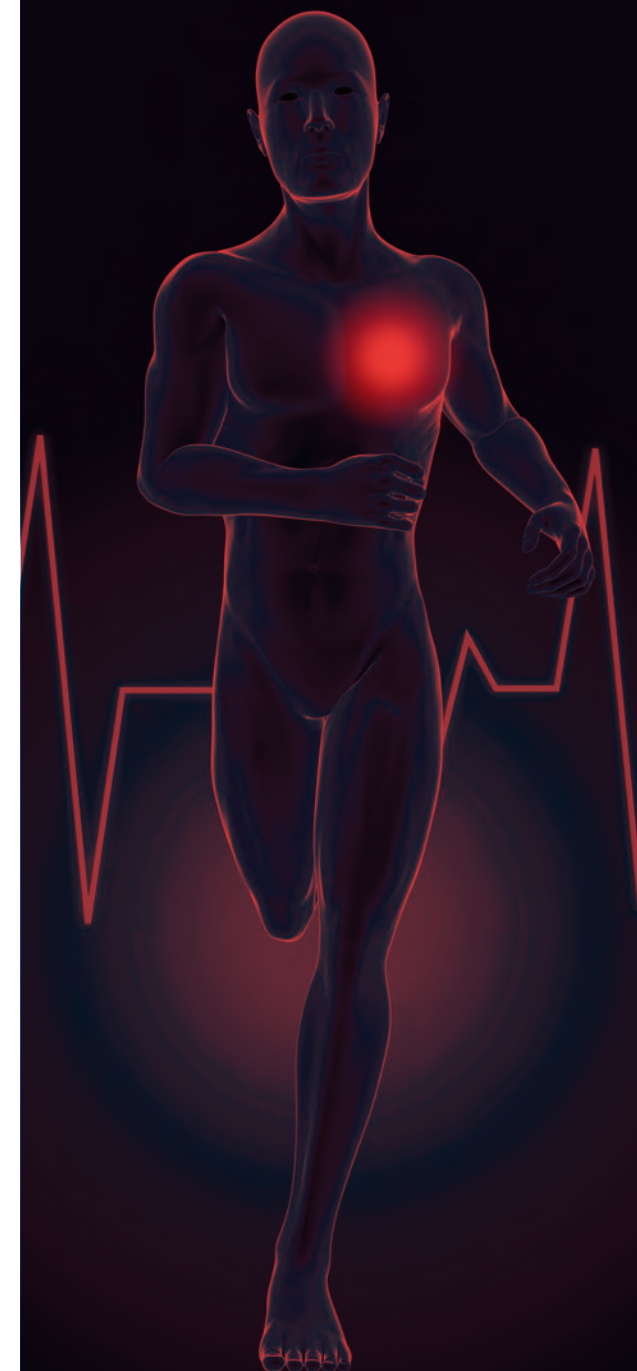
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SEP 2023

www.lcs.org.ly



About Our SOCIETY

20 years of giving, more than 600 members from all over Libya.

The first meeting of the General Assembly was held on 2/2/2002 in Tripoli to launch its scientific activity and to be a beacon of science, aiming to raise the scientific level of healthcare professionals and reduce the burden of cardiovascular disease in Libya.

20
YEARS
GIVING

600
CARDIAC SPECIALIST

20
YEARS
GIVING

INTRODUCTION

The Libyan Cardiac Society (LCS) is a non-profit scientific society established in 2001 by 51 founding members and now has more than 600 members across Libya.

The first meeting of the General Assembly was held on the February 2nd, 2002 in the city of Tripoli. The LCS obtained the European Society Cardiac membership in 2004, then obtained the membership of the World Heart Federation & the International Society of Hypertension in the year 2010.

The Libyan Cardiac Society (LCS) has education channels including the LCS website at www.lcs.org.ly. Also, the YouTube channel with livestreaming educational lectures.



NEWSLETTER – THIRD EDITION September 2023

- Second Edition, (Volume 2): May 2023
- Electronic and Hard copies
- Can be downloaded at the society website (Newsletter section): English and Arabic

The Society Mission:

The LCS aims to decrease the burden of cardiovascular disease in Libya, promote scientific research and raise public awareness about heart disease. The Libyan Cardiac Society provides many educational activities to its members and community including annual scientific meetings, conferences, workshops, lectures and webinar series.

The Society Goals & Objectives:

- 1- Contribute to scientific research in the field of cardiovascular disease.
- 2- Enhance the learning of the society members & provide most updated information & research updates in the cardiovascular field.
- 3- Organizing scientific conferences and symposia locally and contributing to the Arab and international scientific conferences.
- 4- Issuing scientific journals and periodicals related to cardiovascular disease. Cooperation with Arab, African and international scientific bodies and societies in the cardiovascular field.
- 5- Conduct research projects and field research and carrying out health awareness campaigns involving medical students and specialists in the field.
- 6- Strengthening scientific links and links between cardiovascular physicians, surgeons and other health professional allies at home and abroad.
- 7- Coordinating with other scientific societies that are concerned with health in all medical specialties.

**Libyan Cardiac
Society**

جمعية القلب الليبية

know more

تعرف علينا



Dr. Abdulgani Abonowara
Editor-In-Chief of the LCS newsletter

MESSAGE OF THE LCS NEWSLETTER EDITOR-IN-CHIEF

Dear Colleagues,

It's my honor and pleasure to present the third edition of the Libyan cardiac society (LCS) newsletter. I'd like to extend the warmest welcome to all of you and we are delighted to have such distinguish physicians, and healthcare professionals in the field, who are interested in exchange knowledge and explore the advancement in such dynamic field. The newsletter serves as a platform to foster collaboration, share insides to enhance education and development in the field.

Best regards,
Dr. Abdulgani Abonowara; MD, FRCPC, FACC
Editor in chief of the LCS newsletter,
General and Interventional Cardiologist.
Associate Clinical Professor, McMaster University.
Niagara Health, SCG hospital, Ontario – Canada



" TWe would like encourage all of you to actively engage in discussions, networking and to take the opportunity to improve the cardiac services, "There is always room for improvement" so we all can provide the highest standards of care and therapy to our patients in Libya. It's a team effort so I would like to encourage you all to contribute to make it more successful.

Our TEAM

Libyan Cardiac Society Executive Board Members:



Dr. Osama Bheleel; MBBCh, Fachartz (Germany)
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Interventional Cardiologist
Tripoli University Hospital

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Cardio-Oncology
Invasive Cardiologist
Wyoming Medical Center, USA

NEWSLETTER SECTIONS

The Libyan cardiac society involves all scientific cardiac divisions, the members of each section involved in the management of patients with cardiac diseases and help to organize educational activities and workshops..



Adult Cardiology

This involves physician who are involved in the management of adult patients with cardiac diseases; including the diagnosis and treatment of adult patients with cardiac conditions



Pediatric Cardiology

This involves physician who are involved in the management of children with cardiac diseases; including the diagnosis and treatment of children patients with cardiac conditions mostly children with congenital heart disease



Cardiac Surgery

This involves surgeons who are involved in the surgical management of patients with cardiac diseases; including the bypass surgery, valve surgery and correction of congenital heart disease



health Alliances

This involves health care cardiac workers who are involved to help physicians and surgeons in the management of patients with cardiac diseases; under the supervision



Health Educations

This involves and physicians and health care cardiac allies who are involved in the prevention of cardiac disease and cardiac rehabilitations.



Clinical Pharmacology

This involves and physicians, pharmacists and health care cardiac workers who are involved in the management and dispensing of cardiac medications.

The LCS Working Groups

List as following:

- Prevention of CVD Working Group
- Echocardiograph Working Group
- Heart Failure Working Group
- Interventional Cardiology Working Group
- Coronary Artery Disease Working Group
- Pediatric Cardiology Working Group
- Adult Congenital Heart Disease Working Group
- Arrhythmia and Cardiac Devices Working Group
- Cardiac Surgery Group
- Valvular Heart Disease Working Group
- Cardiovascular Pharmacotherapy Working Group
- E-Cardiology Working Group
- BLS/ACLS Working Group
- Cardiac Nurses & technicians Working Group
- Hypertension Working Group
- Myocardial & Pericardial Diseases Working Group

Note : You can join up to 3 working groups.



The society working groups are the backbone for the society scientific activities. We rely on the members of each working group to organize at least one educational activity per year. Herein, we invite you to join one of our working groups.

PIONEERS IN CARDIOLOGY

Dr. Hasan Ahmed Maghur; MBBCH, FRCS



"This section will be dedicated to highlight important figures in cardiology, express the appreciation and gratitude to all members who have dedicated their career to improve the cardiac services in Libya"

Libyan Cardiac Society (LCS).

Dr. Hasan Ahmed Maghur is one of the founders of the Libyan Cardiac Society (LCS). He obtained his medical degree MBBCH from the University of Tripoli then he finished his post graduate studies in the UK and obtained FRCS degree from the University of Glasgow, FRCS in general surgery and Cardiothoracic surgery.

Dr. Hasan Maghur Graduated from faculty of medicine Tripoli university 1981 1st in his class with degree of Honours. He completed his post gradual training in UK – Dublin in 1985 in general surgery, then Obtained FRCS Cardiothoracic surgery (CTh) in 1990 then returned to Libya in the year 1991 and worked in Tajoura Hospital cardiothoracic surgery department between 1991-1994 as consultant cardiothoracic surgeon. He started a cardiothoracic unit at Miatiga Hospital, he also started a cardiothoracic department in Msellata hospital between 1994-1998.

He worked as consultant cardiothoracic surgeon in Zayed military hospital –UAE between 1998-2000 then he returned to Libya and started working at Tripoli Medical Center since the year 2000.

Dr. Hasan Maghur is a professor of surgery at the department of cardiothoracic surgery and Consultant pediatric cardiothoracic surgeon practicing at the Tripoli University hospital, National Health Center - Tajoura and Alkkalil Hospital where he started pediatric cardiothoracic department - program in the year 2001 and he also started pediatric cardiothoracic department - program at Alkkalil Hospital - Tripoli.

Dr. Hasan Maghur is one of the founders of the Libyan cardiothoracic society (LCS) in 2004 along with his other colloquies involved in cardiology and cardiac surgery.

"During my career, I have performed more than 5000 pediatric surgery cases with a success rate of more than 90%".

Dr. Hasan Maghur.

"We highly appreciate what you have done to the cardiac services; your contributions, sacrifices and exemplary work is highly appreciated and it did not go unnoticed; Thank you"

Libyan Cardiac Society (LCS).



مصحة الرازي
التخصصية



مع الرازي أنت بين أسرته

نبذة عنا

مصحة الرازي التخصصية نقدم لكم الخدمات الطبية المتميزة والراقية بأعلى معايير الجودة والسلامة للمرضى ودائماً ما تحرص إدارة المصحة على توفير أحدث الأجهزة والمعدات الطبية ذات التقنية والمعايير العالمية في جميع التخصصات ، والتي تساهم في إعطاء نتائج سليمة وبمعايير طبية تساعد في تشخيص وعلاج المريض .



خدماتنا

تتميز مصحة الرازي التخصصية بوجود شبكة واسعة من أمهر الاستشاريين و الاخصائيين في القسطرة القلبية و الطرفية و الدماغية و جراحة الاوعية الدموية و في شتى المجالات الطبية، لتقديم كل الدعم الطبي علي مدار 24 ساعة 7 ايام أسبوعياً.



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INTERESTING CASE REPORTS

Case One

20/08/2023; 3.3.1
SHORT CASE PRESENTATION AND QUIZ.
Dr. Nadia Sunni

INTRODUCTION:

A 33-year-old, female who was hospitalized with history of breathlessness, hemoptysis, chest pain and depressed conscious level although responding to verbal commands. She was able to vocalize and responding to commands. Her history was limited due to decrease LOC and it was vague.

On physical examination; she looked ill, pale, cachectic, distressed tachypenic with RR 30/min, O₂ saturations 97% on room air, sinus tachycardia with HR of 115/min, BP was 117/70 mmHg, and she was afebrile with temperature of 36.4 C.

Her laboratory investigations revealed that her serum biochemistry and hematology were very deranged, it also showed acute kidney injury, hyperkalemia, hypoalbuminemia, CRP > 300, anemia, and severe thrombocytopenia.

Below was her CXR, below (See Figure -1).

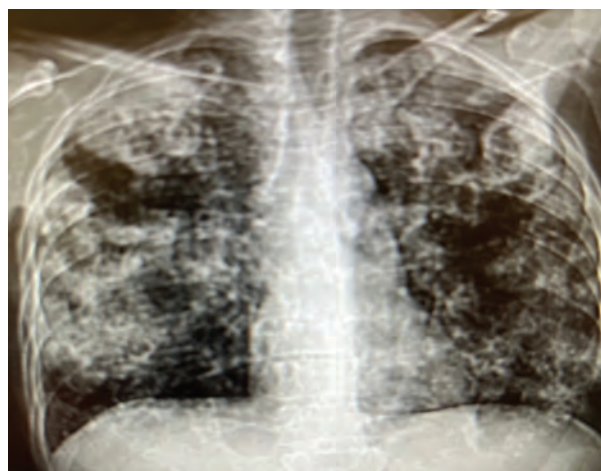


Figure -1: CXR on presentation.

DISCUSSION:

Q: What is your differential diagnosis?

Q: What else would you look for in the history and examination to guide you?

A: The Differential diagnosis of multiple cavitating lung lesions with acute kidney injury as following:-

- Staph aureus, Klebsella pneumonia and lung abscesses
- Pulmonary Aspergelliosis
- Pneumocystis jirovecii (previously P carinii)
- Wegner's granulomatosis/with polyangiitis
- Septic embolization; -Tuberculous.
- Lymphangitis carcinomatosis.
- Metastatic angiosarcoma.
- Lymphocytic interstitial pneumonia e.g. in HIV, connective tissue disorders e.g. Sjogren's disease.
- Langerhans cell histiocytosis.

Q: What else would you look for in the history and examination to guide you?

A: Features to suggest immunocompromised state: Lymphadenopathy, are there narcotic dependency-needle tracks, percutaneous fistula from previous injection, pupil size. Features of systemic vasculitis and or systemic embolization and any pathological murmurs. This will focus your investigations to obtain a diagnosis, as in the image below; (See Figure -2). Her still image of a resting transthoracic echo showing a four-chamber view with a very large tricuspid valve vegetation of infective endocarditis.

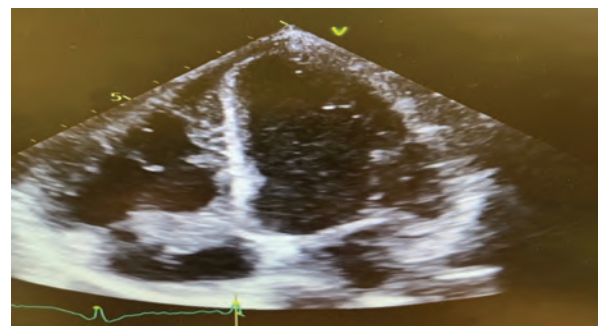


Figure -2: Echo; Apical 4 chamber view

CONCLUSION: Final diagnosis: Severe Native Tricuspid Valve Infective Endocarditis with severe pulmonary embolization and systemic sepsis in an intravenous drug abuser.

DR. NADIA SUNNI

Consultant Cardiologist and Cardiac Electrophysiologist, UK.

INTERESTING CASE REPORTS

Case Two

CASE - 2; 20/08/2023; 3.3.2
ACUTE STEMI LEAD TO THE DISCOVERY OF TYPE-A AORTIC DISSECTION:
Dr. Abdulgani Abonowara

INTRODUCTION:

A 59-year-old female who presented with history of severe chest and epigastric pain for couple of hours. She has history of hypertension and dyslipidemia, no other significant cardiac risk factors.

DISCUSSION:

The patient presented with chest pain and was assessed by an ER physician and kept for observation for few hours, then discharged home after being stable in ER. Her ECG was unremarkable and Troponin - I was initially negative. However, after short period of time the patient came back to the ER as she developed worsening chest pain. Her repeat ECG showed diffuse ST elevation, more in antero-septal STEMI (See ECG Figure-1). Physical exam: initially showed elevated BP at 163/91 mmHg otherwise normal, subsequently the patient developed Hypotension and tachycardia. CVS exam revealed early diastolic murmur.

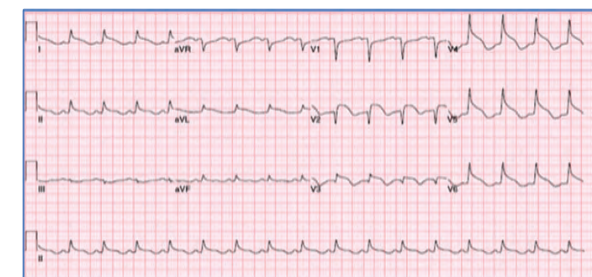


Figure -1: Initially ECG showing diffuse ST elevation

The patient was taken to the cath lab, revealed a hazy LM, hazy critical LAD disease, with mid LD occlusion, so attempted PPCI was done, however, it was difficult to pass the PCI guide wire but after some time the wire passed to LAD (See Figure - 2)

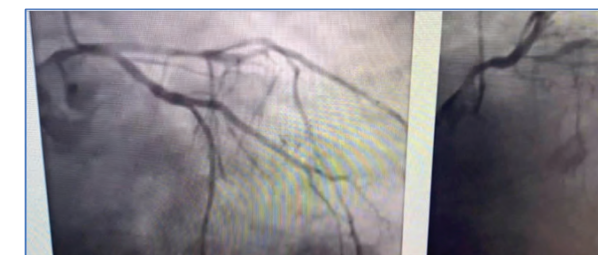


Figure -2: Cardiac cath images; showing hazy LM. hazy critical LAD disease, with mid LD occlusion.

Initially SCAD was suspected so a decision was made to use IVUS to assess the LAD closely; IVUS showed coronary dissection extending back to LM and to the aorta (See Figure - 3)

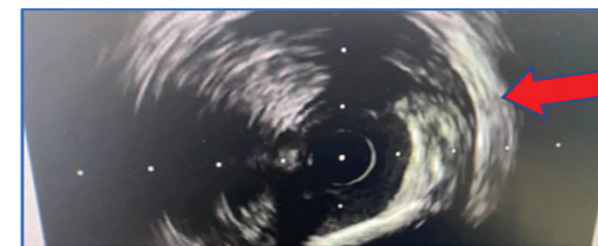


Figure -3: IVUS; coronary dissection (at 2 clock area).

Urgent Echocardiography was done which showed normal LV systolic function and type-A aortic dissection with large flap and severe aortic insufficiency (AI) (See Figures - 4)

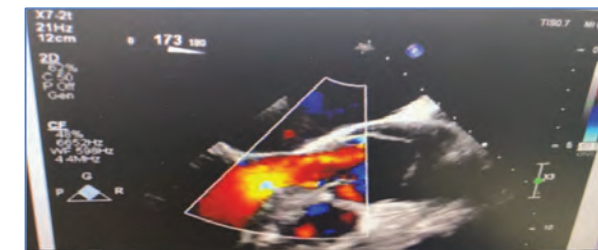


Figure -4: Echo image; showing Aortic root dissection flap with severe AI on color Doppler.

CONCLUSION: Type A aortic dissection can present with acute STEMI, so it is impotent to specifically look for that and consider Echo when indicated to assess for that before processing with PCI "Treat the patient not only to treat the ECG". Also, to look for other causes of aortopathy.

DR. ABDULGANI ABONOWARA; MD, FRCPC, FACC
General and Interventional Cardiologist
Associate Clinical Professor, McMaster University.
Niagara Health, SCG, Hospital, Ontario, Canada

INTERESTING CASE REPORTS

Case Three

20/08/2023; 3.3.3

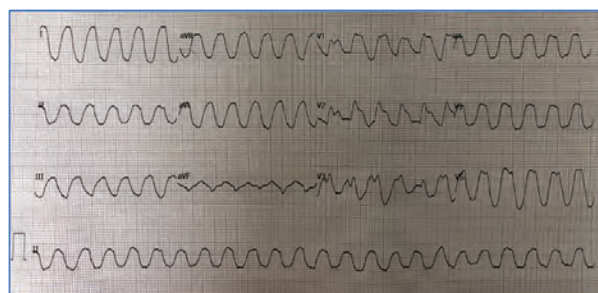
SEVERE HYPERKALEMIA CAUSING A WIDE COMPLEX TACHYCARDIA :
Dr. Basem Elbarouni

INTRODUCTION:

A 75-year-old patient presented to a rural emergency department with palpitations and dizziness and was found to have a wide complex tachycardia (WCT) on ECG, that was terminated with IV calcium gluconate. The patient has end stage renal disease on hemodialysis.

DISCUSSION:

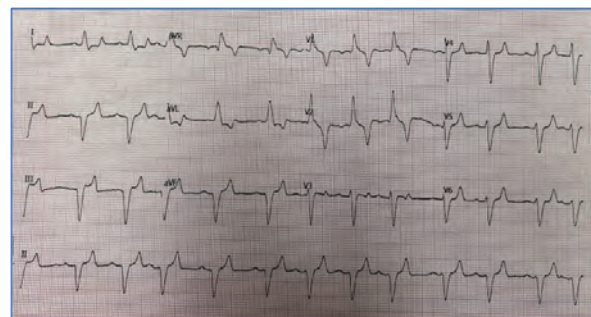
The patient was found to have a wide complex tachycardia (WCT), initially an electrical cardioversion was attempted twice in the ER without success. At which point the ER physician discussed the case with the cardiologist on call; the past medical history was significant for end-stage renal disease requiring hemodialysis. On reviewing the ECG with the ER physician (ECG-1) was advised to administer IV calcium gluconate and check the potassium level.



ECG-1: Hyperkalemia induced wide complex tachycardia (WCT).

The second ECG was recorded after administration of IV calcium gluconate (ECG-2). The potassium level was found to be significantly elevated at 8 mmol/L.

ECG findings in hyperkalemia may include: 1. Peaked T waves: These are tall and narrow T waves that are often the earliest and most common ECG sign of hyperkalemia. .



ECG-1: Hyperkalemia induced wide complex tachycardia (WCT).

2. Widened QRS complexes: This is due to slowing of conduction through the ventricles, resulting in a prolonged duration of the QRS complex 3. Prolonged PR interval: This is often seen in conjunction with a widened QRS complex and can indicate impairment of the atrioventricular (AV) node conduction. 4. Loss of P waves: This may occur as the hyperkalemia worsens and can indicate atrial standstill or complete heart block. 5. Sine wave pattern: In severe cases, a sine wave pattern can be seen on the ECG, which represents a continuous, smooth wave-like pattern with no discernible P or T waves. Hyperkalemia should always be considered in patient at high risk, including those on dialysis or patients on ACE inhibitors or aldosterone receptor antagonists.

Management of hyperkalemia in general includes early administration of IV calcium gluconate or calcium chloride to stabilize the myocardial cells. Followed by shifting of the potassium into cells with the usual therapy like insulin and glucose administration. Then finally eliminating the extra potassium through diuresis, dialysis or through the G.I. tract depending on the clinical presentation.

CONCLUSION: Hyperkalemia is not uncommon cause of wide complex tachycardia (WCT), so it to be consider in patient who presents with WCT, it should always be considered in patient at high risk like patients with end stage renal disease. WCT should be urgently terminated with IV calcium and the hyperkalemia to be treated using the usual therapy.

DR. BASEM ELBAROUNI, MBBCH, FRCPC, DRCPC
Associate Professor, University of Manitoba,
Program Director, Interventional Cardiology Training Program, Winnipeg, Canada

INTERESTING CASE REPORTS

Case Four

20/08/2023; 3.3.4

Interesting case: Giant Eustachian Valve
Dr. Emad Fhema

INTRODUCTION:

A 77-year-old hypertensive female was suffering from recurrent chest pain, exertional dyspnea and lower limbs swelling. Her vitals were stable, apart from irregular-irregular pulse of a newly diagnosed atrial fibrillation (A. Fib). Clinically, raised JVP and oedematous legs were observed, in addition to loud pan-systolic murmur at the tricuspid area and audible fine bibasal crepitation.

DISCUSSION:

Echo (TTE) showed preserved left ventricular (LV) function (LVEF >55%) Interestingly, a detectable membranous structure extends from IVC orifice to the middle of inter atrial septum (IAS) and divides right atrium (RA); keeping with a Prominent Eustachian Valve structure (Figer - 1).

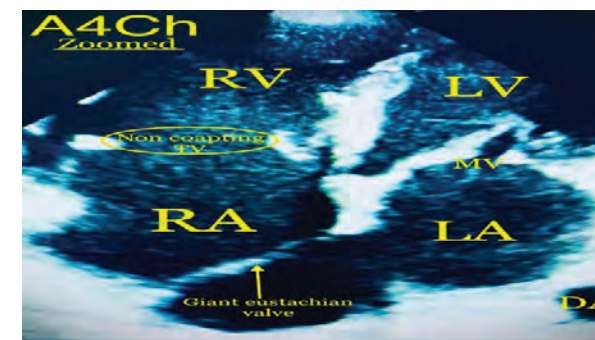


Figure - 1: Echo showing, giant Prominent Eustachian Valve.

Aortic valve (AV) components were heavily calcified. All of her Right sided heart structures were dilated, associated compressed LV (D-shaped) by the hugely dilation right ventricle (RV). Besides that, the tricuspid valve (TV) was not coapting normally and resulting in a severe tricuspid regurgitation (TR) (Figer - 2).

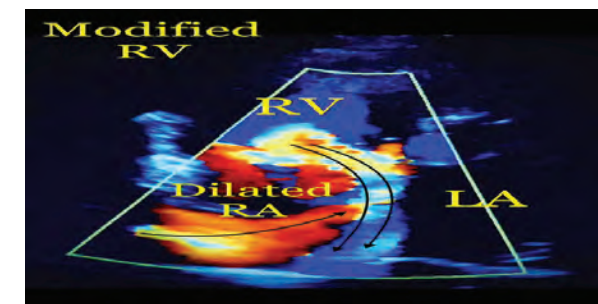


Figure - 2: Echo showing Tricuspid valve (TV) was not coapting normally and resulting in a severe TR

That was also seen on cardiac MRI (CMR) (Figer -3).

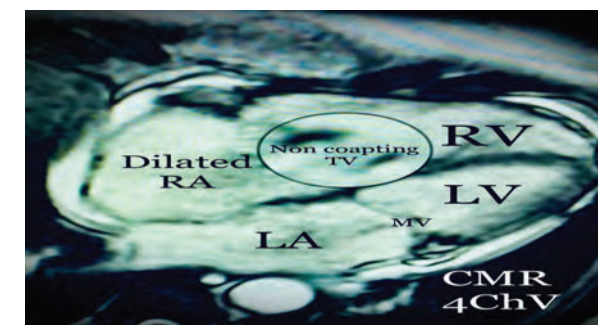


Figure - 3: Cardiac MRI (CMR) showing Tricuspid valve (TV) was not coapting normally.

DICUSSION:

Eustachian valve is a small embryologic portion located at the entrance of the inferior vena cava (IVC) to right atrium (RA). During fetal life, it directs the oxygenated blood from IVC towards foramen ovale.

Early in life and after the physiologic closure of foramen ovale, the Eustachian valve either disappears completely or remains as a moving filamentous web-like structure with no specific function, then it's termed as (Chiari network). Rarely, it can persist as giant, prominent-elongated mobile structure that may occasionally be confused with thrombus or other abnormal structure. Additionally, it's tendency for vegetation or thrombi formation if it was large enough or linked to patent foramen ovale (PFO).

CONCLUSION: Eustachian valve is a normal common finding on Echo but it can be giant prominent-elongated mobile that may occasionally be confused with thrombus or other abnormal structure.

Dr. Emad Fhema; MBBCh, PgDip.
Cardiology, Alkhadra Hospital, Tripoli

2023 ESC CLINICAL PRACTICE GUIDELINES

20/08/2023; 3.3.1

ESC Clinical Practice Guidelines: 2023 ESC Guidelines for the management of acute coronary syndromes (ACS).



Recommendations for antiplatelet and anticoagulant therapy in acute coronary syndrome		
Antiplatelet therapy		
Aspirin is recommended for all patients without contraindications at an initial oral LD of 150–300 mg (or 75–250 mg i.v.) and an MD of 75–100 mg o.d. for long-term treatment.	I	A
In all ACS patients, a P2Y ₁₂ receptor inhibitor is recommended in addition to aspirin, given as an initial oral LD followed by an MD for 12 months unless there is high bleeding risk.	I	A
A proton pump inhibitor in combination with dual antiplatelet therapy is recommended in patients at high risk of gastrointestinal bleeding.	I	A
Rescue PCI is recommended for failed fibrinolysis (i.e. ST-segment resolution <50% within 60–90 min of fibrinolytic administration) or in the presence of haemodynamic or electrical instability, worsening ischaemia, or persistent chest pain.	I	A
In patients with a working diagnosis of STEMI and a time from symptom onset >12 h, a PPCI strategy is recommended in the presence of ongoing symptoms suggestive of ischaemia, haemodynamic instability, or life-threatening arrhythmias.	I	C
Routine PCI of an occluded IRA is not recommended in STEMI patients presenting >48 h after symptom onset and without persistent symptoms.	III	A

Invasive strategy in NSTEMI-ACS		
An invasive strategy during hospital admission is recommended in NSTEMI-ACS patients with high-risk criteria or with a high index of suspicion for unstable angina.	I	A
A selective invasive approach is recommended in patients without very high- or high-risk features and a low index of suspicion for NSTEMI-ACS.	I	A
An immediate invasive strategy is recommended in patients with a working diagnosis of NSTEMI-ACS and with at least one of the following very high-risk criteria: <ul style="list-style-type: none">• Haemodynamic instability or cardiogenic shock• Recurrent or refractory chest pain despite medical treatment• In-hospital life-threatening arrhythmias• Mechanical complications of MI• Acute heart failure presumed secondary to ongoing myocardial ischaemia Recurrent dynamic ST-segment or T wave changes, particularly intermittent ST-segment elevation.	I	C
Oxygen is recommended in patients with hypoxaemia (SaO ₂ <90%).	I	C
It is recommended that EMS transfer patients with suspected STEMI to a PCI-capable centre, bypassing non-PCI centres.	I	C
It is recommended that ambulance teams are trained and equipped to identify ECG patterns suggestive of acute coronary occlusion and to administer initial therapy, including defibrillation, and fibrinolysis when applicable.	I	C
It is recommended that all hospitals and EMS participating in the care of patients with suspected STEMI record and audit delay times and work together to achieve and maintain quality targets.	I	C

2023 ESC CLINICAL PRACTICE GUIDELINES

Recommendations	Class ^a	Level ^b
It is recommended to base the diagnosis and initial short-term risk stratification of ACS on a combination of clinical history, symptoms, vital signs, other physical findings, ECG, and hs-cTn. ^{1,17,18}	I	B
ECG		
Twelve-lead ECG recording and interpretation is recommended as soon as possible at the point of FMC, with a target of <10 min. ^{5,19}	I	B
Continuous ECG monitoring and the availability of defibrillator capacity is recommended as soon as possible in all patients with suspected STEMI, in suspected ACS with other ECG changes or ongoing chest pain, and once the diagnosis of MI is made. ^{20,21}	I	B
The use of additional ECG leads (V3R, V4R, and V7–V9) is recommended in cases of inferior STEMI or if total vessel occlusion is suspected and standard leads are inconclusive. ^{22–24}	I	B
Rescue PCI is recommended for failed fibrinolysis (i.e. ST-segment resolution <50% within 60–90 min of fibrinolytic administration) or in the presence of haemodynamic or electrical instability, worsening ischaemia, or persistent chest pain.	I	A
In patients with a working diagnosis of STEMI and a time from symptom onset >12 h, a PPCI strategy is recommended in the presence of ongoing symptoms suggestive of ischaemia, haemodynamic instability, or life-threatening arrhythmias.	I	C
Routine PCI of an occluded IRA is not recommended in STEMI patients presenting >48 h after symptom onset and without persistent symptoms.	III	A
Multivessel disease in haemodynamically stable NSTEMI-ACS patients undergoing PCI		
In patients presenting with NSTEMI-ACS and MVD, complete revascularization should be considered, preferably during the index procedure. ^{513,514}	IIa	C
Functional invasive evaluation of non-IRA severity during the index procedure may be considered. ^{518,527,528,532}	IIb	B

Recommendations for the initial management of patients with acute coronary syndrome		
It is recommended that the pre-hospital management of patients with a working diagnosis of STEMI is based on regional networks designed to deliver reperfusion therapy expeditiously and effectively, with efforts made to make PPCI available to as many patients as possible.	I	B
It is recommended that PPCI-capable centres deliver a 24/7 service and are able to perform PPCI without delay.	I	B
It is recommended that patients transferred for PPCI bypass the emergency department and CCU/ICU and are transferred directly to the catheterization laboratory.	I	B
Recommendations for non-invasive imaging in the initial assessment of patients with suspected acute coronary syndrome		
Emergency TTE is recommended in patients with suspected ACS presenting with cardiogenic shock or suspected mechanical complications.	I	C
Routine, early coronary computed tomography angiography in patients with suspected ACS is not recommended.	III	B
The use of additional ECG leads (V3R, V4R, and V7–V9) is recommended in cases of inferior STEMI or if total vessel occlusion is suspected and standard leads are inconclusive.	I	B
An additional 12-lead ECG is recommended in cases with recurrent symptoms or diagnostic uncertainty.	I	C
It is recommended to measure cardiac troponins with high-sensitivity assays immediately after presentation and to obtain the results within 60 min of blood sampling.	I	B
It is recommended to use an ESC algorithmic approach with serial hs-cTn measurements (0 h/1 h or 0 h/2 h) to rule in and rule out NSTEMI.	I	B

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Recommendations for clinical and diagnostic tools for patients with suspected acute coronary syndrome	Class ^a	Level ^b
It is recommended that patients with suspected STEMI are immediately triaged for an emergency reperfusion strategy.	I	A
It is recommended to base the diagnosis and initial short-term risk stratification of ACS on a combination of clinical history, symptoms, vital signs, other physical findings, ECG, and hs-cTn.	I	B
Twelve-lead ECG recording and interpretation is recommended as soon as possible at the point of first medical contact, with a target of <10 min.	I	B
Continuous ECG monitoring and the availability of defibrillator capacity is recommended as soon as possible in all patients with suspected STEMI, in suspected ACS with other ECG changes or ongoing chest pain, and once the diagnosis of MI is made.	I	B
Patient discharge information should be provided in both written and verbal formats prior to discharge. Adequate preparation and education for patient discharge using the teach back technique and/or motivational interviewing, giving information in chunks, and checking for understanding should be considered.	IIa	B
Assessment of mental well-being using a validated tool and onward psychological referral when appropriate should be considered.	IIa	B
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Vaccination		
Influenza vaccination is recommended for all ACS patients.	I	A
Anti-inflammatory drugs		
Low-dose colchicine (0.5 mg once daily) may be considered, particularly if other risk factors are insufficiently controlled or if recurrent cardiovascular disease events occur under optimal therapy.	IIb	A
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Recommendations	Class ^a	Level ^b
Patient-centred care is recommended by assessing and adhering to individual patient preferences, needs and beliefs, ensuring that patient values are used to inform all clinical decisions.	I	B
It is recommended to include ACS patients in decision-making (as much as their condition allows) and to inform them about the risk of adverse events, radiation exposure, and alternative options. Decision aids can be used to facilitate the discussion.	I	B
It is recommended to assess symptoms using methods that help patients to describe their experience.	I	C
Use of the 'teach back' technique for decision support during the securing of informed consent should be considered.	IIa	B
Imaging		
In patients with pre-discharge LVEF ≤40%, repeat evaluation of the LVEF 6–12 weeks after an ACS (and after complete revascularization and the institution of optimal medical therapy) is recommended to assess the potential need for sudden cardiac death primary prevention ICD implantation.	I	C
Cardiac magnetic resonance imaging should be considered as an adjunctive imaging modality in order to assess the potential need for primary prevention ICD implantation.	IIa	C
Outpatient follow-up After 4–6 weeks		
LDL-C <1.4 mmol/L or 55 mg/dL ³		
No change in therapy		
On highest tolerated statin, add ezetimibe (Class I)		
On highest tolerated statin and ezetimibe, add PCSK9i (Class I)		
After further 4–6 weeks		
LDL-C <1.4 mmol/L or 55 mg/dL ³		
No change in therapy		
On highest tolerated statin and ezetimibe, add PCSK9i (Class I)		
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Beta-blockers		
Beta-blockers are recommended in ACS patients with LVEF ≤40% regardless of HF symptoms.	I	A
Routine beta-blockers for all ACS patients regardless of LVEF should be considered.	IIa	B
RAAS system inhibitors		
Angiotensin-converting enzyme (ACE) inhibitors ^d are recommended in ACS patients with HF symptoms, LVEF ≤40%, diabetes, hypertension, and/or CKD.	I	A
Mineralocorticoid receptor antagonists are recommended in ACS patients with an LVEF ≤40% and HF or diabetes.	I	A
Routine ACE inhibitors for all ACS patients regardless of LVEF should be considered.	IIa	A
If the LDL-C goal is not achieved despite maximally tolerated statin therapy and ezetimibe after 4–6 weeks, the addition of a PCSK9 inhibitor is recommended.	I	A
It is recommended to intensify lipid-lowering therapy ^e during the index ACS hospitalization for patients who were on lipid-lowering therapy before admission.	I	C
For patients with a recurrent atherothrombotic event (recurrence within 2 years of first ACS episode) while taking maximally tolerated statin-based therapy, an LDL-C goal of <1.0 mmol/L (<40 mg/dL) may be considered.	IIb	B
Combination therapy with high-dose statin plus ezetimibe may be considered during index hospitalization.	IIb	B
In selected patients with high-degree AV block in the context of an anterior wall MI and acute HF, early device implantation (CRT-D/CRT-P) may be considered.	IIb	C
Pacing is not recommended if high-degree AV block resolves after revascularization or spontaneously.	III	B
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In smokers, offering follow-up support, nicotine replacement therapy, varenicline or bupropion, individually or in combination, should be considered.	IIa	A
Pharmacological treatment		
Lipid-lowering therapy		
It is recommended that high-dose statin therapy is initiated or continued as early as possible, regardless of initial LDL-C values.	I	A
It is recommended to aim to achieve an LDL-C level of <1.4 mmol/L (<55 mg/dL) and to reduce LDL-C by ≥50% from baseline.	I	A
If the LDL-C goal is not achieved despite maximally tolerated statin therapy after 4–6 weeks, the addition of ezetimibe is recommended.	I	B
Recommendations		
Cardiac rehabilitation		
It is recommended that all ACS patients participate in a medically supervised, structured, comprehensive, multidisciplinary exercise-based cardiac rehabilitation and prevention programme.	I	A
Lifestyle management		
It is recommended that ACS patients adopt a healthy lifestyle, including: <ul style="list-style-type: none">• stopping all smoking of tobacco• healthy diet (Mediterranean style)• alcohol restriction• regular aerobic physical activity and resistance exercise• reduced sedentary time	I	B
Lipid lowering therapy in ACS patients		
During admission		
Prior treatment		
LLT-naïve, irrespective of LDL-C values	Initiate high-potency high-dose statin (Class I)	Combination therapy with statin and ezetimibe (Class IIb)
On low-potency/low-dose statin, irrespective of LDL-C values	Change to high-potency high-dose statin (Class I)	Combination therapy with statin and ezetimibe (Class IIb)
On highest tolerated statin	LDL-C <1.4 mmol/L or 55 mg/dL ³	No change in therapy
On highest tolerated statin and ezetimibe	LDL-C <1.4 mmol/L or 55 mg/dL ³	Add PCSK9i (Class I)
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CLINICAL LIBYAN DATA

Therapeutic Cardiac Cath at Albida Medical Center for the year 2022.

Procedure	Number
CATH	747
PCI	225
Total number	972

Referring center	Number
ABYAR	2
ALABRAG	13
ALBIDA	675
BENGHAZI	38
DARNA	44
EJDABYA	2
FAYDEA	11
GERNADA	9
GUBA	19
KUFRA	2
MARJ	19
OMAR MUKHTAR	5
SHAHAT	43
SOSA	15
TOBROK	20
WSAETA	2
SABHA	3
OTHER	50
Total number	972

Referring center	Percentage
ALABRAG	1.34%
ALBIDA	69.59%
BENGHAZI	3.92%
DARNA	4.54%
EJDABYA	0.21%
FAYDEA	1.13%
GERNADA	0.93%
GUBA	1.96%
KUFRA	0.21%
MARJ	1.96%
OMAR MUKHTAR	0.52%
OTHER	5.15%
SABHA	0.31%
SHAHAT	4.43%
SOSA	1.55%
TOBROK	2.06%
WSAETA	0.21%
Total	100.00%

Dr. Aeshah Emran Abouqeelah; MBBCH
Resident at cardiology and medical department at Albida Medical Center.
Teaching assistant at Omar Al mukhtar University.

THE CORONARY ARTERY DISEASE WORKING GROUP PREPARED AND ORGANIZED THE FIRST CORONARY ARTERY DISEASE (CAD) SYMPOSIUM:



The Libyan Cardiac Society (LCS) coronary artery disease symposium in Tripoli, sponsored by the WHO, hosted the first coronary artery disease (CAD) symposium supported and led by the Libyan cardiologists from Libya Canada and the USA. It was done at Soufara Al alim Center - Tripoli



Also, a similar Symposium was done at Berenice Hotel / Alsalmani – Benghazi, which was sponsored by the ALAFIA pharmaceutical company. The symposium started with lectures, followed by interesting case presentations, and then cardiac cath workshop hands-on sessions, supervised by Dr. Abdulgani Abonowara, Dr. Hamza Rayes and Dr Mohsen Saleh.

IMPORTANT DATES & EVENTS

The following are some of the important dates that the LCS always participates in reviving and raising awareness about, Such as World Heart Day, World No Tobacco Day, and World Blood Pressure Measurement Day.

FEBRUARY 14th
World Congenital Heart Disease Awareness

APRIL 7th
World Health Day

MAY 7th
Blood pressure measurement campaign

MAY 31th
World no smoking Day

September 29th
World Heart Day

December 29-31
The 9th LCS Congress

With greetings from the LCS president and executive board members, also best greeting of the LCS and the editor-in-chief of the LCS newsletter and its editorial board members..

”You can contact us and we are happy to receive your feedback via the LCS e-mail and follow us on social media platforms online”
LCS Newsletter editorial board



visit the LCS website: www.lcs.org.ly

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CARDIOLIBYA 2023

THE 9TH ANNUAL SCIENTIFIC MEETING
OF THE LIBYAN CARDIAC SOCIETY
DECEMBER 29-31 2023



كَمَـعِيَّةُ الْقَلْبِ اللَّيْبِيَّةُ
LIBYAN CARDIAC SOCIETY

STAT OF THE ART LECTURES - KEYNOTE SPEAKER - WORKSHOPS
BLS/ACLS COURSES - POSTER SESSION - JEOPARDY COMPETITION
YOUNG INVESTIGATORS AWARD

Register at

[/http://www.lcs.org.ly/Congress](http://www.lcs.org.ly/Congress)

Submit your abstract NOW



BENGHAZI
LIBYA



29-31
DECEMBER 2023



FROM 8:00
TO 17:00



EBAC Accredited CME Program

Contact us: Email: newsletter@lcs.org.ly

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Derna
It will bloom again

درنة

سوف تزهر من جديد