Conference Abstracts

Selected Abstracts of the 8th Libyan Cardiac Society Congress, July 1 to 3, 2022, Tripoli, Libya

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The eighth Annual Scientific Meeting of the Libyan Cardiac Society Congress was held between July 1st and 3rd, 2022, in Rixos Convention Center in Tripoli, Libya. Abstracts were received in three categories: clinical vignette, research, and quality improvement. All abstracts underwent a peer-review process by the scientific committee and independent reviewers. A grading system was used based on the abstract's quality, novelty, and clinical significance. Here, we present both the oral and poster abstracts as submitted by the authors after minimal restyling to suit publications purposes. Most abstracts were clinical vignettes from Libya, Tunisia, Turkey, and the United States of America. They are published here for rapid communication and to benefit those who could not attend the congress physically.

The eighth Annual Scientific Meeting of the Libyan Cardiac Society, known as the eighth LCS Congress, was held between July 1st to 3rd, 2022, in Rixos Convention Center in Tripoli, Libya. Fifty-four abstracts were received in three categories: clinical vignette, research, and quality improvement. Most abstracts were clinical vignettes from Libya, Tunisia, Turkey, and the United States of America. All abstracts underwent a peer-review process by the scientific committee and independent reviewers. A grading system was used based on the abstract's quality, novelty, and clinical significance. Each abstract was evaluated and scored by two reviewers. Out of 54 abstracts, 40 were accepted, and one was retracted by the author prior to the meeting. The main reasons for rejections were as follows: poor quality, unrelated to cardiology, and duplicate publication.

Here, we present both the oral (OA) and poster abstracts (PA) of the eighth LCS Congress as submitted by the authors. The first five abstracts (PA 1–5) are the winners of young investigator awards for best posters during the eighth LCS Congress poster competition. If not published yet, we invite all authors to submit a full manuscript of their abstracts to the journal for a peer-review process.

Authors' Contributions

The guest editors prepared the abstracts for publication in this journal. However, the authors of the individual abstracts are responsible for the contents of their own abstracts.

Compliance with Ethical Principles

The preparation and submission of this abstract book do not need an ethical approval per se. However, The Libyan Cardiac Society accepts abstracts on the understanding that all due ethical approvals and consents were obtained for all forms of human research.

Sponsorship and Funding

None.

Conflict of Interest

None declared.

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ORAL PRESENTATIONS

OA1. Case Series: Multiple Rhabdomyomas in Monozygotic Twins and Their Father

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Rhabdomyomas are the most common cardiac tumors in infants and childhood. Positive family history and multiple cardiac rhabdomyomas are significantly associated with Tuberous Sclerosis Complex (TSC) (2). We document postnatal monozygotic twins with rhabdomyomas and their father, who has been diagnosed and operated on for rhabdomyomas in his childhood. Globally, this documentation is the third case of monozygotic twins with rhabdomyomas. Case presentation: Twin I: A preterm newborn male, a part of monozygotic twins and a product of first-degree consanguineous marriage. At birth, the baby was sick, and his two-dimensional echocardiography (2D echo) showed numerous intracardiac, intramyocardial, and extracardiac rhabdomyomas along the intraventricular septum in both the right and left ventricular apices, masses measured 5 mm to 35 mm suggestive of rhabdomyomas. Twin II: Screened at the age of 2 weeks, was completely asymptomatic. His 2D echo revealed multiple echogenic cardiac masses, ranging in size from 4 mm to 35 mm, in the right ventricle wall, left ventricular and intraventricular septum—the twin's father. Family history revealed that the father is a known case of tuberous sclerosis. His 2D echo at the age of 6 months revealed a large endomyocardial mass attached to the apex and occluding the right ventricular outflow. He had cardiac surgery in 1988. Macroscopic examination revealed a large mass measuring 35×25 mm. Histopathology confirmed the diagnosis of rhabdomyomas.

OA2. Anomalous Left Coronary Artery from Pulmonary Artery

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Introduction: The incidence of the left coronary artery from the pulmonary artery (ALCAPA) ranges from 1:30,000 to 1:300,000 people. Heart failure is apparent within the first few months of life and may be exacerbated by respiratory infection. The only definitive treatment is surgical repair.

Case Presentation: A 45-day-old girl, part of a twin, was referred to our cardiac clinic for tachypnea. Cardiovascular examination was unremarkable, and chest X-ray revealed cardiomegaly. ECG showed deep Q waves in lead I, T wave inversion in the lateral leads with positive T wave in lead V1. An inverted T wave in the left precordial leads is abnormal and is associated with an abnormal T axis in the right upper quadrant in the frontal plane; all imply myocardial ischemia or infarction. Transthoracic echocardiography revealed severely reduced LVEF of 15%, and the left coronary arises from the pulmonary artery (ALCAPA). The family was immediately informed about the diagnosis and the need for surgical intervention, which was done by excising the left coronary artery LCA orifice as one button from the main pulmonary artery MPA, Trap door incision created in the aorta, LCA button anastomosed directly to aorta. The patient was discharged home after 6 days.

Discussion: ALCAPA or Blade-White-Garland syndrome is a severe but rare congenital cardiac malformation. It represents 0.25 to 0.5% of all congenital heart defects. Most ALCAPA patients will present with coronary artery steal, myocardial ischemia, mitral regurgitation, and left ventricular dysfunction. Symptoms of myocardial ischemia and congestive heart failure, including crying and diaphoresis with feeding, tachypnea, poor weight gain, and pallor, are present in 85% of infants. Some patients do not present with symptoms until later in childhood or adulthood, likely due to early and adequate coronary collateralization. Coronary CT angiography is an appropriate and practical diagnostic option when ALCAPA is suspected compared with conventional invasive angiography. The current management recommendation is to operate at any age when the diagnosis is made due to ventricular arrhythmias and sudden death. Practices differ according to preferences in each cardiac unit. For instance, a direct anastomosis may be performed on the anomalous coronary artery from the pulmonary artery to the aorta. Alternatively, for patients in whom a direct transfer of the coronary artery is not feasible, an intrapulmonary aortocoronary tunnel may be performed. Although ALCAPA is a rare congenital heart defect, one should consider it in the differential diagnosis of young infants presenting with heart failure due to dilated cardiomyopathy. The ECG is a beneficial diagnostic tool, and echocardiography is considered as one of the most confirmatory diagnostic methods in young children. The earlier the diagnosis, the better the outcome of the surgical intervention.

OA3. The Role of CT Angiography Compared to Echocardiography in Evolution of Congenital Heart Disease in Tripoli Children Hospital

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Introduction: Echocardiography is the mainstay for the diagnosis of CHD. The recent developments in CT angiography techniques increase the role of CT in evaluating CHD. We aim to highlight the role of CT in evaluating cardiovascular abnormalities and clinical indications above echocardiography.

Methods: We included 70 patients who were referred or followed in the cardiac clinic in Tripoli Central Hospital from January 2013 to October 2018. All patients with a history or clinical suspicion of cono-trancal defect were included in the study; for all patients full history and clinical examination were obtained. An echocardiography and CT angiography were done.

Result: Pulmonary anomalies represent the majority of 37 cases (53%), and the commonest pulmonary anomaly is pulmonary stenosis. The majority of patients show the same finding in echocardiography and CT angiography, which represent 47 cases (67.1%), while in 12 cases (17%), CT angiography adds more details concerning the size of great vessels and peripheral structure. CT angiography rule-out the echocardiography finding in only 11 cases (15%). Out of 23 patients with aortic anomaly, 19 cases (82.6%) CT has the same finding as echocardiography, while in three cases (13%), the CT rolled out the echo finding.

Conclusion: CT angiography is considered a diagnostic and complementary tool in diagnosing complex heart defects, especially pulmonary anomalies.

OA4. Late Diagnosis of COA in 33-Years Female Patient with Atypical Presentation

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Introduction: The incidence of coarctation of the aorta (CoA) is 4 in 10,000 live births, accounting for 5 to 8% of congenital heart disease, and the mean life expectancy of patients with CoA is 35 years. Furthermore, 90% of those patients die before reaching the age of 50 years. Complications occur in patients who have not had surgery or those operated on in later childhood or adult life. A 33-year-old female was referred for the management of recurrent seizures and headache. She was put on antiepileptic drugs for a long time with no improvement. She had a history of persistent headache and calf pain. On examination, there was hypertension in the upper limbs (190/100 mm Hg), lower limb blood pressure was 100/60 mm Hg, with weak radial and lower limb pulse with radio-femoral delay. Neurological examination was normal, and her ECG showed sinus rhythm and normal QRS axis with no criteria for ventricular hypertrophy. CXR shows a normal cardiothoracic index, a high positioned aortic arch with a discreet "3" sign, and no rib notching. An echocardiogram on the suprasternal view revealed signs of aortic coarctation, with a peak systolic gradient of 59 mm Hg at the coarctation site and diastolic run-off at Doppler evaluation. CT angiogram revealed evidence of 2.8 cm at ascending aorta, with 2.5 cm at the arch of aorta and descending aorta 1.7 cm with coarctation at descending aorta 1.2 cm with high gradient CoA in the presence of hypertension. The patient underwent balloon angioplasty with stent placement. The pressure gradient across the CoA segment was measured and found to be 60 mm Hg. Afterward, a long sheet was introduced, and a covered stent was positioned at the coarctation site. Immediately after the stent placement, clinical reevaluation showed palpable pulses of the dorsalis pedis, posterior tibial, popliteal, and femoral arteries, and normal blood pressure with minimal treatment (decreased dose of CCB) was achieved during the following days. Repeat Doppler evaluation revealed an improved peak gradient at 29 mm Hg. At the 6-month follow-up visit, the clinical examination showed preserved lower-limbs pulses. The patient needed a low dose of antihypertensive therapy. Echocardiography showed a peak systolic gradient in the descending aorta of 27 mm Hg.

Discussion: CoA may be recognized in adults because of systemic arterial hypertension and discrepant upper- and lower-extremity pulses. Patients may complain of exertional headaches, leg fatigue, or claudication. Different methods for treating CoA in adults include surgical or percutaneous balloon angioplasty with or without stent placement and medical therapy.

Conclusion: The case presented best illustrates that CoA is a congenital cardiac malformation that can go undiagnosed until old age, with only hypertension as a marker of its presence. Clinical signs can be subtle and overlooked if a complete physical examination is not performed. Nowadays, different surgical and interventional types of treatment are available. However, these should be individualized for each patient and each type of coarctation (native coarctation or recoarctation after surgical or interventional treatment).

OA5. Anticoagulant Therapy of Atrial Fibrillation Patients, Where We Are from the Guidelines? Tripoli University Hospital, Cardiology Department 2021

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Introduction: Atrial fibrillation (A-fib) is the commonest cardiac arrhythmia with more than 33 million patients in the world, risk of ischemic stroke is increasing in (A-fib) patients, where up to 23.7% of them are found to have underlying (A-fib). Patients with (A-fib) who suffer an ischemic stroke appear to have a worse outcome than those who have an ischemic stroke in the absence of (A-fib). Oral anticoagulation is effective in the prevention of strokes secondary to (A-fib), reducing overall stroke numbers by approximately 64%. Effective stroke prevention with oral anticoagulant (OAC) is the cornerstone of the management of patients with AF and it reduces the risk of stroke and death, such therapy is associated with an increased risk of bleeding .

Aim: To assess the adherence of physicians providing care to A-fib patients with the ESC guidelines of (A-fib) treatment regarding anticoagulation therapy.

Methods: This audit was performed with a case series design by reviewing the medical records of 114 patients diagnosed with atrial fibrillation who were admitted to the cardiology department at Tripoli University Hospital from January to December 2021. Data was collected in a predesigned worksheet and analyzed by SPSS software V.22.

Results: Of the 114 patients, 68 were females (59.6%), the mean age of A-fib patients was 65.6 ± 14 years, 51.8% were elderly older than 65 years, 44.7% were adults aged 41 to 65 years, and only 3.5% were young adults aged 20 to 40 years. 33.3% live outside Tripoli. Regarding the cause of A-fib, 45 patients (39.4%) have one cause, hypertension was first in the rank and cause of A-fib in 59.6% of the patient, cardiomyopathy in 40.3% of patients, ischemic heart disease in 33.3%, and valvular heart disease in 26.3% of the patient. Regarding the other co-morbidity with A-fib, diabetes mellitus was found in 50% of patients, renal impairment in 21.9%, and heart failure in 20% of patients. History of CVA was documented for 15.8% of patients. anticoagulants were prescribed for 71 patients (62.3%) on discharge, warfarin for 83.3%, and Xarelto for 16.7%. No anticoagulant was prescribed to the other 43 patients (37.7%). By applying the HAS-BLED score to the 43 cases who did not receive the anticoagulants, one case had four points, 10 cases had three points, 13 cases had two points, 14 cases had one point, and five cases had zero points. Of the 43 patients, 38 (88.3%) had CHA2DS2VASc ≥ 2. Of these 38 patients, aspirin only was prescribed for 14 (36.8%), aspirin and clopidogrel were prescribed for 13 (34.2%), and the other 11 patients (28.9%) were discharged with none with no apparent cause documented in the medical records.

Conclusion: About one-third of the patients under study were discharged without prescription of any anticoagulant, although according to the ESC guideline of AF treatment. It is recommended to increase physicians' awareness of the importance of anticoagulants in preventing thromboembolic complications in A-fib patients. Also, a further multicenter study on the reason for non-prescribing anticoagulants on discharge for (A-fib) the patient is needed.

OA6. Unexpected Acute Left Main Coronary Artery Occlusion following Transcatheter Self-Expandable Aortic Valve Replacement without Recognized Coronary Obstruction Risk Factors: A Case Report

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Introduction: Transcatheter aortic valve implantation (TAVI) is the recommended mood of intervention in severe aortic stenosis in 75 years old patients or older, those who are at high risk or unfit for surgery. This procedure has some rare complications, including coronary ostium obstruction which could be life-threatening and needs urgent diagnosis and treatment. Case presentation: We report an 81-year-old female with symptomatic severe aortic stenosis. The aortic valve peak velocity was 4.87 m/s, the maximum and mean gradients were 99 and 59, respectively, and the aortic valve area was 0.6 cm^2. Transfemoral aortic valve self-expandable prosthesis Evolutpro (Medtronics Inc., Minnesota, United States) implanted, complicated immediately by acute left main coronary artery (LMCA) occlusion, and hemodynamic collapse was successfully treated by balloon angioplasty and stent implantation.

Discussion: Obstruction of the coronary arteries during the valve implantation is rare, but it is a well-documented and life-threatening complication of TAVI. The incidence of this complication in subsequent large TAVI series and registries has been low, but the 30-day mortality rate after coronary artery occlusion remained very high. The left main coronary ostium is the most frequently affected, and the obstruction mainly results from dislocated calcium from the cusps or commissures after balloon dilatation and/or prosthesis expansion. To the best of our knowledge, there are two cases reported so far for this valve type.

Conclusion: Coronary occlusion during or immediately after TAVI is a life-threatening complication and is not always predictable. This complication must be considered when periprocedural hemodynamic deterioration, electrocardiographic changes, and ventricular arrhythmias occur.

OA7. Relationship between Blood Pressure Indices and Severity of Coronary Atherosclerosis

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Introduction: The optimal BP treatment target is still being debated. A reduction in pulsatile components of BP may be useful. However, a severe drop in steady-state components leads to coronary hypoperfusion, especially in patients with obstructive CAD pulsatile components (systolic BP, SBP; pulse pressure, PP; pulsatility index, PI) be more important in comparison to the steady-state components (DBP & MAP). Case demonstration: 66-year-old hypertensive male with chest pain. NON-INVASIVE BP INDICES: SBP = 145, DBP = 60, MAP = 88.3, PP = 85. INVASIVE BP INDICES SBP = 140, DBP = 58, MAP = 58.3, PP = 82. ECG widespread T wave inversion is most prominent in the lateral leads. Coronary angiography: showed 80 to 90% proximal and mid-stenoses in the left anterior descending (LAD) artery, the left circumflex (LCX) artery, and the right coronary artery (RCA). SYNTAX score: 34 (high).

Discussion: Our study found that patients with high SYNTAX scores had significantly higher dynamic pulsatile components and lower DBP than patients with low SYNTAX scores. There is a positive correlation between SYNTAX score with invasive pulsatile parameters than noninvasive BP parameters.

Conclusion: Pulsatile components are more important in comparison to the steady-state components for the extent of coronary atherosclerosis which can be identified by the presence of a high SYNTAX score.

OA8. Disappearing Left Ventricular Mass in a Young Patient with Normal Systolic Function

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Cardiac masses, in general, are commonly encountered in the form of a thrombus or vegetation following ACS or IE, respectively. However, this term encompasses multiple entities aside from the conditions mentioned above, namely cardiac tumors with their different types, origin, and malignant condition. Intracardiac thrombi are the most common, and they are often seen in patients following an acute myocardial infarction or any condition that may cause hematic stasis within the heart chambers. One characteristic feature is that wall motion abnormalities almost invariably accompany them. Vegetations will almost always be a consequence of infective endocarditis, in a patient presenting with the typical picture of disease. Different cardiac tumors have different, specific age groups, most notably cardiac myxomas, the most common primary cardiac tumor in adults, and cardiac rhabdomyomas, the most common cardiac tumor seen in children. In this paper, we will discuss the strange presentation of an LV mass in a young patient with a completely normal systolic function, and with no history of any cardiac or medical conditions, and the disappearance of said mass after several months after the diagnosis, without any medical or surgical intervention.

POSTER ABSTRACTS

PA1. Gender Disparities in the Clinical Outcomes of Patients with Stress Cardiomyopathy (Takotsubo Syndrome)

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Introduction: Stress cardiomyopathy is more common in females. Male sex in stress cardiomyopathy has a low incidence, and it is still not well characterized. We sought a meta-analysis to evaluate the gender difference in the outcome of stress cardiomyopathy.

Methods: We searched PubMed, Cochrane Central Register of Clinical Trials, EMBASE, and ClinicalTrial.gov (inception through May 2022) for studies evaluating the gender difference in the outcome of stress cardiomyopathy. We used the random-effect model to calculate the risk ratio (RR) with a 95% confidence interval (CI). In-hospital all-cause mortality was the primary outcome. Secondary outcomes include cardiogenic shock, mechanical ventilation, left ventricular thrombus, ventricular tachycardia/fibrillation, and length of hospital stay.

Results: Nine studies with 50,434 patients (4,748 males and 45,686 females) were included. As compared with female, the male group has statistically significant increase in in-hospital all-cause mortality (RR 2.17; 95% CI 1.79–2.62; $p < 0.0001$), cardiogenic shock (RR 1.53, 95% 1.36–1.62, $p < 0.00001$), and ventricular tachycardia/fibrillation (RR 1.72, 95% CI; 1.52–1.94: $p < 0.0001$). There was no significant difference between males and females in terms of mechanical ventilation (RR 0.80, 95% CI; 0.54–1.21: $p = 0.29$), left ventricular thrombus (RR 0.66, 95% CI; 0.16–2.71: $p = 0.57$), and length of hospital stay (-0.34, 95%[-0.81–1.49], $p = 0.57$).

Conclusion: Our meta-analysis suggests that in stress cardiomyopathy male gender is associated with a nearly two-fold increase in in-hospital all-cause mortality and higher rates of cardiogenic shock compared with females. Further studies with propensity score matching are needed to evaluate the gender-based difference in the outcomes of stress cardiomyopathy.

(1st Place Best Poster Award)

PA2. The Role of Fragmented QRS in Patients with Heart Failure with Preserved Ejection Fraction

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Introduction: Fragment FQRS has also been reported in various cardiac conditions such as ischemic and dilated cardiomyopathy, sarcoidosis, myocarditis, arrhythmogenic ventricular dysplasia, and Brugada syndrome. FQRS was associated with an increased risk of arrhythmic events and lower ejection fraction. The aim of our study was to study the role of fragmented QRS in patients with heart failure with preserved ejection fraction.

Methods: The study was an observational cross-sectional study. It was conducted at the Cardiology Department, Zagazig University Hospitals. The studied sample consisted of 95 patients with diastolic dysfunction. All patients were stratified into two groups according to the presence or absence of fragmented QRS complex in resting surface ECG. Electrocardiogram, conventional echocardiographic examination, tissue Doppler imaging, and 6-minute-walk test were done.

Results: There was a statistically significant difference between 6-minute-walk test of heart failure with preserved ejection fraction patients with and without FQRS. In addition, we found that 6-minute walk test is considered a good parameter to discriminate between heart failure patients with and without FQRS with a sensitivity of 81.5%, specificity of 69.6%, and accuracy of 72.9%.

Conclusion: The value of FQRS in cardiology is much higher than what is being understood currently. FQRS is considered an indicator of myocardial fibrosis or scar tissue and has already been closely associated with a greater probability of adverse cardiac consequences and reduced tolerance of exercise in patients with HFpEF. We also concluded that FQRS is a helpful indicator for heart failure with preserved ejection fraction patients with low exercise tolerance measured by 6-minute walk test.

(2nd Place Best Poster Award)

PA3. Penetrating Vascular Injuries of the Lower Limbs: Predictive Factors Associated with Limb Loss and Mortality

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Introduction: Penetrating vascular injuries of the lower limbs are associated with high rates of mortality and limb loss. Identifying the predictive risk factors associated with limb loss and mortality is highly important to improve the surgical management of these injuries.

Methods: For this, we conducted a descriptive and retrospective study. For 10 years (January 2008 to December 2018), we included patients presenting with penetrating vascular injuries of the lower limbs.

Results: We noted 52 patients with lower limb ischemia (77.6%). Twenty-nine patients had isolated arterial injuries, and 32 (48%) had combined arterial and venous injuries. The most frequent arterial site of injury was the SFA, while the most frequent arterial type of injury was a transaction. Different arterial repair techniques were realized; vein graft was the most performed technique in 19 patients (28.4%). We identified four predictive clinical factors of amputation and mortality, hemorrhagic syndrome, compartment syndrome, neurological deficit, and external pre-hospital hemostatic compression.

Conclusion: Penetrating vascular injuries of lower limbs are serious injuries that might threaten limb vitality and even be lethal. An efficient bleeding control followed by vascular repair is life and limb saving.

(3rd Place Best Poster Award)

PA4. Unrecognized Fascicular Ventricular Tachycardia

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Introduction: Fascicular tachycardia is a distinct subgroup of idiopathic ventricular tachycardia, characterized by a relatively narrow QRS complex (110 ms to 140 ms) and hence can be confused with supraventricular tachycardia. Case presentation: a 29-year-old man presented with a sudden onset of palpitations. He denies syncope, has no family history of sudden cardiac death, is a non-smoker, and denies alcohol intake or illicit drug use. On examination: the heart rate was 167 bpm, blood pressure 110/70 mm Hg, and transthoracic echocardiography revealed no structural abnormality. Intervention: The emergency doctors reviewed

the ECG, and diagnosed it as an acute episode of SVT. He did not respond to vagal maneuvers, adenosine, metoprolol, or amiodarone. Subsequently, the patient became hypotensive and received three unsuccessful synchronized DC with 200 J. Four hours later, he spontaneously converted to sinus rhythm.

Discussion: The differential diagnosis of a narrow complex tachycardia with right bundle branch morphology includes SVT with aberrancy and fascicular VT. Fascicular VT has an RBBB morphology and can be classified into three types according to the QRS axis: left axis deviation with posterior fascicular tachycardia (most common) and right axis deviation with anterior fascicular tachycardia; normal axis with upper septal fascicular VT. The medical treatment of choice is verapamil, and radiofrequency ablation can be curative.

Conclusion: Fascicular VT should be considered as one of the differential diagnoses of relatively narrow QRS, with the right bundle branch block morphology.

(4^{th} Place Best Poster Award)

PA5. Isolated Pulmonary Embolism Post-COVID-19 Vaccination

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Acute pulmonary embolism (PE) is a common cause of hypoxemic respiratory failure and emergency department visits. Since the COVID-19 epidemic, the number of cases has risen. While COVID infection is a prothrombotic condition, the introduction of COVID vaccines increased the risk of spontaneous venous thrombus development and pulmonary embolism to a lesser level. PE is most commonly related to deep vein thrombosis (DVT), with only a few isolated or De novo PE instances reported in the literature. We report a case of isolated PE associated with COVID-19 vaccinations. We aimed to highlight the need to suspect isolated PE in patients presenting with syncope and arrhythmias days to several weeks following COVID-19 vaccination and emphasize the importance of post-discharge follow-up for evaluating chronic thromboembolic pulmonary hypertension (CTEPH).

(5^{th} Place Best Poster Award)

PA6. Thrombocytopenia with Huge Right Atrium Myxoma

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Introduction: Cardiac myxoma is the most common cardiac tumor. Most cardiac myxomas arise in the left atrium —case presentation: a 56-year-old male presented with dyspnea, syncope, fever, and weight loss. Physical examination revealed tachycardia and distended jugular veins. There was thrombocytopenia 22,000/mm^3. Chest CT showed a large mass in the right atrium extending into a pulmonary trunk. Transthoracic echocardiography revealed a large mobile mass originating from the right atrium and extending into the right ventricle. Total excision of the tumor was performed. Pathology confirmed the diagnosis of cardiac myxoma. During the follow-up visit, the platelet count increased to 323,000/mm^3.

Discussion: Syncope is rare with cardiac myxoma, reported in 1% of cases. Our patient had recurrent episodes of syncope that may be due to outflow obstruction. Thrombocytopenia is a rare manifestation of cardiac myxoma, as reported in the literature. The mechanism remains unclear, although it has been postulated that abnormal mechanical shear stress caused by tumor-induced flow obstruction may be responsible for that. Improved platelet count supports this fact after the removal of cardiac mass.

Conclusion: We have herein two rare, unique presentations of myxoma syncope and thrombocytopenia, the exact cause is yet not known. Further in-depth studies are required to establish a clear explanation. Myxoma should be considered in the differential diagnosis of unexplained syncope.

PA7. Analysis of Coronary Artery Lesions and Related Risk Factors in Patients who Underwent Coronary Angiography, A Single-Center Study

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Introduction: Coronary artery disease (CAD) continues to be a significant cause of mortality. A combination of various risk factors results in the development of CAD. The primary purpose of this study is to determine whether risk factors are linked to a larger extent of CAD.

Methods: This single-center retrospective cross-sectional study was performed between May and November 2021. The medical records of patients who underwent coronary angiography (CA) at Albida medical center were reviewed for risk factors and CA results.

Results: Of 192 patients included in the study, 130 (67.7%) were males. Their mean age was 60 ± 10.08 years. The prevalence of coronary artery lesions was 65.1%. The group of patients with CAD compared with those without CAD had a higher proportion of males (73.6%). The diseased group had a high prevalence of hypertension (65.7%), diabetes (54.4%), and smoking (36.8%). Sixty percent of patients with coronary artery lesions had more than one risk factor.

Conclusion: Risk factors most prevalent and strongly associated with coronary heart disease in this population were classical, including hypertension, diabetes, smoking, and male gender. Controlling cardiovascular risk factors screening at-risk groups and improving coronary interventional treatments are all critical.

PA8. Associated Right Atrial Thrombus with Pulmonary Embolism in Post Intrauterine Fetal Death Patient: A Case Report

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Introduction: Pulmonary embolism (PE) is frequently complicated by hypotension and shock, leading to mortality rates exceeding 50%. Patients with right ventricular (RV) dysfunction are another subgroup with a guarded prognosis, as are those with right heart thrombus. Cardiac thrombus is not a common finding in non-structurally heart disease, especially in this young lady with free PMH, with a 2-month history of bed-bound pre-IUFD termination, which was initially suspected to be a myxoma. Case presentation: A 37-year-old woman G6P4A2 with a 2-month history of bed rest secondary to fragile pregnancy that unfortunately ended by CS because of IUFD. She was on fraxiparine SC 0.3 mL once during these 2 months with poor compliance. Post CS, she got dyspnea with tachycardia, and EKG showed just sinus tachycardia. Furthermore, transthoracic ECHO showed a right atrial mass (approximately greater than 2 cm and less than 4 cm) with preserved LV function and no signs of pulmonary hypertension. CT pulmonary angiography proved PE

diagnosis, and LL Doppler USS showed proper popliteal DVT UFH infusion started with target APTT 50 to 60. After 4 days of intensive care admission, the dyspnea subsided, and HR remained normal. Later, the patient was discharged in good general condition on Xarelto 20 mg daily. Four weeks later, on follow-up, the patient was asymptomatic with no remaining thrombus on transthoracic echo and CT chest angiography.

Discussion: Echocardiography can detect right heart thrombi, a marker of worse prognosis, the prevalence of which is 4 to 18% in the setting of an acute PE and usually found in those more hemodynamically compromised. Free-floating right heart thrombi are almost exclusively associated with PE. The association of the mass in the right atrium in high-risk pregnant bed-bound patients supported the diagnosis of thrombus. However, a myxoma could not be completely ruled out due to reduced facilities. Atypical presensation of thrombus can be challenging to differentiate from cardiac myxoma.

Conclusion: We presented a case of a patient in whom a right atrial mass was the first sign of bed-bound-induced coagulopathy. The case of a few months bed-bound high-risk pregnant woman underscores the importance of anticoagulant prophylaxis in such cases.

PA9. Acute Anterior Myocardial Infarction in a Young Man Who Recently Recovered from COVID-19 Infection

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Introduction: The myocardial injury/infarction (MI) appears to be a common feature in coronavirus disease (COVID-19). Some studies suggest that the increased risk of both venous and arterial thromboses due to a hypercoagulable state in patients with COVID-19 might theoretically explain the increased risk of MI in patients with COVID-19. Case presentation: A 26-year-old man recently diagnosed with COVID-19 was managed as an outpatient. Three weeks after the diagnosis of COVID-19, the patient presented to the hospital with sudden severe central chest pain. The electrocardiogram (ECG) showed ST-segment elevation in leads V2–V6. He was given thrombolytic therapy to manage the STEMI. A transthoracic echocardiogram revealed no cardiac abnormalities, and serum troponin was elevated. Coronary angiography was performed that showed a thrombus in the proximal LAD. The patient did well during his hospital stay and was discharged in stable condition.

Discussion: COVID-19 is associated with an increased risk of myocardial injury regardless of the severity of symptoms. Many studies suggest that the hypercoagulable state in COVID-19 patients might be related to the increased risk of ischemic events. The exact explanation is not clear yet. However, there was a high incidence of late presentation of STEMI cases during the pandemic period of COVID-19, which is most likely due to the strict hospital regulations at that time.

Conclusion: This is a compelling case of post-COVID-19 in a young patient with no co-morbidities who presented with acute myocardial infarction. This case warrants further study in this population at significant thrombotic risk and the role of antithrombotics in such cases.

PA10. Left-Sided Infective Endocarditis in Intravenous Drug Abuse: A Case Report

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Introduction: Infective endocarditis (IE) involving the mitral valve is uncommon in IV drug abusers (IVDA). We present an interesting case of left-sided infective endocarditis. Case presentation: a 22-year-old male was admitted with a fever of unknown origin. He presented with fever, chills, and fatigue. He is known to be an IV drug abuser (IVDA) and has had those symptoms for about 10 days. On the day of admission, his physical examination revealed a low-grade fever, systolic murmur, crackles in the right middle and lower lung zone, and right upper abdominal tenderness. His ECG showed sinus tachycardia, and the chest X-ray showed right pulmonary edema. The laboratory investigations showed marked inflammatory changes. TTE showed small mobile masses attached to mitral valve leaflets and papillary muscles in keeping with vegetations. A complete rupture of posteromedial and anterolateral papillary muscles led to severe mitral regurgitation (MR). He was also found to have an atrial septal defect (ASD). Blood culture was done, and he was started antibiotic therapy with ceftriaxone and vancomycin. Cardiac surgery was considered to be done urgently to prevent further complications.

Discussion: Typically, in infective endocarditis in IVDA, the tricuspid valve is the most commonly affected. However, our patient had left-side infective endocarditis with ASD and ruptured papillary muscles causing severe MR and high mortality risk. This patient had a clear indication for cardiac surgery as his IE was associated with severe mitral regurgitation. We treated him with broad-spectrum antibiotics and referred him for urgent mitral valve replacement and closure of his ASD. Unfortunately, the patient was unable to access cardiac surgery due to financial issues and the unavailability of a surgeon. The patient developed multiorgan failure and died a few days later.

Conclusion: This is a call to develop a better health care system to treat patients like ours. The treatment of endocarditis needs teamwork and effort and involves a primary physician, cardiologist, infection disease specialist, and cardiac surgeon when needed. Be aware of the need for IE antibiotic prophylaxis when indicated; counseling is done to stop IV drugs for such patients.

PA11. Endovascular Repair of Popliteal Artery Aneurysm

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Introduction: The popliteal aneurysm is the most common peripheral aneurysm. Surgery remains the reference treatment. Nevertheless, developing new endovascular techniques and their good outcomes encourage such approaches for special patient populations. Case presentation: A 56-year-old male patient was admitted for painful swelling of the right popliteal fossa, associated with intermittent claudication. When assessing the patient, we discovered a pulsatile and expansive mass of the right popliteal fossa. There were no signs of ischemia. The computed tomography angiography confirmed the presence of a >3 cm popliteal aneurysm. The decision was taken to perform endovascular treatment with a covered stent. After a

1-month follow-up, the patient described no pain with a patent stent graft.

Discussion: There are two strategies for the treatment of PAA. There is the traditional open surgery and the endovascular approach. Several morphological criteria are favorable to endovascular treatment. These are the supra-articular location of the aneurysm, an angulation of less than 60 degrees, the presence of an intravascular thrombus that provides some stability to the prosthesis, a healthy proximal and distal neck (> 1 cm), a length does not exceed one stent, and more than one patent vessel distally.

Conclusion: Endovascular treatment of popliteal aneurysm is a relatively easy and minimally invasive procedure. It does not close the door to open surgery.

PA12. Popliteal Artery Pseudoaneurysm Caused by Exostosis: A Case Report

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Introduction: Osteochondroma is a common benign bone tumor, usually affecting either the lower or upper extremities during childhood and adolescence. It rarely involves the nearby vascular structures, leading to the development of arterial complications. Case presentation: A 20-year-old male patient with no medical history was admitted for painful swelling of his right popliteal fossa. Magnetic resonance imaging concluded with an osteochondroma of the posterior face of the distal femoral metaphysis, complicated with a popliteal pseudoaneurysm of 93 × 74 in diameter, which extended longitudinally for 150 mm. A reversed autologous saphenous vein graft interposition was performed for arterial reconstruction, and the bone exostosis was excised. The postoperative course was uneventful.

Discussion: Osteochondroma are usually asymptomatic, and complications may occur in just 4% of cases. These complications include neurological compromise, malignant degeneration, growth abnormality, and vascular damage. This latter, in particular, in the form of arterial-venous fistula formation, false aneurysm development, vessel occlusion, or stenosis, essentially develops in the second decade of life. Nevertheless, children may also be affected. Open surgery management is the gold standard, allowing the treatment of the pseudoaneurysm and bone exostosis resection at the same time.

Conclusion: False aneurysms should be considered in young patients presenting painful swelling or pulsatile masses in the extremities.

PA13. Epidemiological Study of Hypertension in Pediatrics Age Group in Benghazi Children's Hospital

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Introduction: Provide a relevant introduction regarding your study's background and purpose, preferably in no more than two or three sentences. The prevalence of HTN is rising in children and adolescents. The causes, risk factors, clinical outcomes, and complications have been assessed in this study in children who were admitted to a hospital. The case–control study was performed from December 2019 to 2020. Most cases noticed in 7 to 12 years age group, 58% were male, 91.5% from Benghazi city ($p = 0.001$), 92.7% were White race ($p = 0.23$), family history of renal disease was 10.98%, low birth weight has had a statistical significance as risk factor ($p = 0.001$), preterm delivery was not a risk factor for HBP ($p = 0.25$), regarding the cause 11% was primary HTN and 89% was due to secondary HTN (renal disease 45.12%, malignancy 21.95%, miscellaneous 21.95%, autoimmune 4.88%, drugs 6.10%), echo result (45.1% was normal, Lt VH 19.5%, hypertensive cardiomyopathy 9.8%, not done in 23.3%, COA with Lt vH 2.4%), and clinical presentation (63.4% no complication, 20.7% cardiac problems, 11% CNS insult, CNS and cardiac 3.7%, epistaxis 1.2%); 80.5% received medicine. As age increases, the hypertensive frequency increases; male predominance. Low birth weight was a risk factor, while the race was not. A family history of renal disease was significant. Secondary HTN was the most common type. Primary HTN is diagnosed in patients older than 6 years but more frequent in age older than 13 years. Renal disease and malignancy were the predominant causes of HTN. HTN have significant co-morbidity, mainly cardiac and CNS. Cardiac co-morbidity was more with renal HTN.

PA14. Case Report of Fascicular Ventricular Tachycardia in a COVID-19 Patient

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Introduction: Fascicular ventricular tachycardia (FVT) is rare and was discovered to be responsive to verapamil. It is characterized by sustained monomorphic ventricular tachycardia (VT), right bundle branch block (RBBB), and left axis deviation, mostly in healthy young adults. Case presentation: A 29-year male physician presented to our emergency room with palpitations and chest tightness for 1 day. Clinical assessment revealed mild-moderate COVID-19 pneumonia and sustained monomorphic VT with RBBB and left axis deviation on ECG with stable hemodynamics. Pulse rate and temperature were 182 bpm and 38.5°C, respectively. Carotid massage and IV adenosine were unsuccessful. Amiodaron only slowed heart rate. A 10 mg of IV verapamil immediately restored sinus rhythm. Therefore, the diagnosis of FVT was confirmed. On follow-up, transthoracic echo showed no abnormality.

Discussion: Emergency physicians can misdiagnose FVT as SVT with aberrancy or ischemic VT. Failure to restore sinus rhythm after Valsalva maneuvers, adenosine, and amiodarone suggested FVT diagnosis. FVT as a presentation of mild-moderate COVID-19 was not described in literature before, and further studies need to demonstrate such a possible association. The limitation of our case report is the lack of a confirmatory SARS-CoV-2 RT-PCT test. Our diagnosis of COVID-19 was based on: recent positive exposure to SARS-CoV-2 and clinical, laboratory, and radiological manifestations (viral pneumonia, with lymphopenia, negative serum procalcitonin, and positive SARS-CoV-2 Immunoglobulins).

Conclusion: Fascicular ventricular tachycardia can be the main presentation of mild-moderate COVID-19 infection. It can be missed in emergency settings.

PA15. Efficacy and Safety of Transcatheter Device Closure of ASD in NHC Benghazi

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Introduction: ASD secundum is common congenital heart disease. The mortality rate from untreated can approach 25%, and transcatheter closure has become the method of choice to manage most patients with secundum ASDs.

Objectives: We report our experience and assess the safety and efficacy of the Transcatheter closure device. To evaluate the immediate and short-term results of the Transcatheter closure device of ASD secundum at the National Heart Center, Benghazi-Libya.

Methods: This case series we conducted at National Heart Center Benghazi from January 2020 to 2022 on a total of 36 patients. Of these 36 patients, 17 were adults, while 19 patients' were children and adolescents, and the mean age was 22.9 (6–62 years). A transesophageal echocardiogram was done in all patients before the procedure.

Results: In 36 patients, ASD device closure was successfully done without major complications. Size of ASD devices was 12 to 30 mm, the size of defect measured by TEE ranged from 11 to 25 mm, attack of supraventricular tachyarrhythmia was seen in one patient at the end of procedure and was successfully managed medically.

Conclusion: The study shows our early experience in ASD closure devices with excellent clinical outcomes. In the present study, the risk of complications was minimized by careful selection of device diameter based on the accurate measurements of the defect size and rims by transesophageal echocardiogram and sizing balloon.

PA16. Invasive BP Measurement as an Accurate Predictor of Coronary Artery Disease Severity

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Introduction: Hypertension is a common risk of CVD. Severe reduction in BP might compromise coronary perfusion and result in ischemia, especially in patients with obstructive CAD. Using invasive central BP indices may help obtain optimal hypertension treatment targets. The pulsatile components of invasive central BP indices (systolic blood pressure [SBP], pulse pressure [PP], and amp; pulsatility index [PI]) are more critical in predicting future CV adverse events compared with the steady-state components (mean arterial pressure [MAP], diastolic blood pressure [DBP]). Reducing pulsatile components may be helpful, but a severe drop in steady-state components leads to coronary insufficiency. We studied 90 consecutive stable patients with evidence of obstructive CAD as detected by elective coronary angiography divided into two groups according to SYNTAX scores High & Low.

Results: Invasive BP indices are more accurate predictors. Patients with high syntax scores have significantly higher SBP, PP & PI, and lower DBP & MAP Brachial BP indices, less accurate predictors.

Conclusion: Invasive central aortic pressures were more predictive than noninvasive peripheral brachial pressures for the extent of coronary atherosclerosis, which is identified by the presence of a high SYNTAX score. A definite significant association between both low steady-state components & high dynamic pulsatile component of central aortic pressure and high SYNTAX Score in stable patients with obstructive CAD.

PA17. Spontaneous Coronary Artery Dissection in a Young Female Case Report Study

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Spontaneous coronary artery dissection (SCAD) is a complex disease. It is a rare cause of acute coronary syndrome (ACS) and sudden cardiac death, seen mostly in young females with no known history of underlying coronary artery disease but nowadays still poorly understood. Various etiologies are thought to be responsible for this condition, but atherosclerosis seems to be the most common. It is also reported to be linked to intense exercise, chest trauma, and the use of certain drugs. When compared with atherosclerotic coronary artery disease, SCAD has fewer risk factors. It is usually diagnosed via coronary artery angiography, the primary diagnostic tool. The overall incidence ranges from 0.28 to 1.1% in angiographic studies. However, the actual incidence is higher due to the substantial number of spontaneous dissections present as sudden death. The rarity and limited knowledge of the disease make its management challenging. Early diagnosis of this condition is crucial because it usually ends with asymptomatic or sudden cardiac death prior to diagnosis. The optimal therapeutic options may vary depending on hemodynamic stability and the dissection's location, including medical therapy for distal lesions, percutaneous coronary intervention (PCI), or coronary artery bypass graft (CABG) for proximal lesions. In general, the prognosis for spontaneous coronary artery dissection therapy is very good—prompt treatment and proper counseling decrease both short- and long-term complications.

PA18. Hypereosinophilic Syndrome Presented by Heart Failure Preserved Ejection Fraction: A Case Report of the Importance of Multimodality Cardiac Imaging in Loeffler Endocarditis

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Introduction: Loeffler endocarditis is a rare form of restrictive cardiomyopathy caused by hypereosinophilic syndrome (HES), characterized by hypereosinophilia and fibrous thickening of the endocardium causing heart failure and thrombosis. Case presentation: a 47-year-old woman presented with severe shortness of breath, her blood pressure was 115/75 mm Hg, Spo2 was 91%, pulse rate was 105 bpm, mitral and tricuspid holosystolic murmur, S3 and S4, crepitations in both lungs, and moderate pedal edema. Transthoracic echocardiography showed Ef 50%, mass filling two-thirds of the left ventricular (LV) cavity, tricuspid, and mitral regurgitations, and the E/A ratio was 2.75. Cardiac magmatic resonance imaging (CMR) revealed endomyocardial fibrosis and thrombus equipping LV apex. Laboratory tests revealed multiple elevated eosinophils (58%, 13,360 mm^3).

Discussion: Loeffler endocarditis is caused by degranulation of eosinophils in the myocardium, resulting in fibrosis and thrombosis. Echocardiographic signs are elevated filling pressure, progressive endomyocardial thickening, valve regurgitation, and intracardiac thrombosis. During the acute phase, the T2 signal increased by CMR and late gadolinium enhancement (LGE). In the thrombotic stage thrombi at the ventricular apices. Finally, late gadolinium enhancement is seen in the chronic stage, consistent with fibrosis. The typical delayed enhancement pattern in endomyocardial fibrosis (EMF) "double V" sign, characterized by a three-layered appearance consisting of normal myocardium, thickened enhanced endomyocardial, and overlying thrombus, is seen in our case.

Conclusion: LGE by CMR with HES indicates Loeffler endocarditis. The unique observation in the presented case is the "double V" sign at the ventricular apex. Further studies are needed on the privilege of CMR in Loeffler endocarditis.

PA19. Clinical Profile and Short-Term Outcome of Children with COVID-19 Related Multisystem Inflammatory Syndrome (MIS-C) Diagnosed at Tripoli Children's Hospital

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Introduction: The pandemic of COVID-19 since its eruption from Wuhan, to date, has rapidly captured the whole world. There have been few cases of children affected by COVID-19. Some cases have been reported with an inflammatory condition similar to those of Kawasaki disease and Toxic Shock syndrome named multisystem inflammatory syndrome.

Methods: This prospective observational study included children who satisfied CDC and WHO case definitions of MIS-C criteria admitted to Tripoli children's hospital from November 2020 to June 2021.

Results: In total, 14 patients fulfilling the criteria of MIS-C were included in this survey. Patients' ages range from 2 months up to 15 years, with a mean age of 4.3. High-grade fever 78%, vomiting 71.4%, and abdominal pain 57% were the most common presenting symptoms. Four patients, 28.4%, were diagnosed with heart failure. Four patients presented with renal failure 28.4%, only one presented with encephalitis 7.1% while two patients 14.3% presented with a shocking state. The outcome of our patients in our study: 10 patients recovered fully, two patients died, and two patients had a sequel of the disease.

Conclusion: MIS-C is a treatable condition, but it might lead to death or children might have a sequel of disease for which MIS-C must be considered in children presenting to ER, especially with a previous history of COVID-19 infection fulfilling WHO criteria.

PA20. Cardiac Troponin I Level and Outcomes in COVID-19 Patients in Alhawari Hospital Benghazi

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Objectives: We aimed to determine the association between cardiac troponin I (cTnI) levels and outcomes in COVID-19 patients.

Methods: A retrospective analysis of 319 patients, admitted with COVID-19 in Alhawari General Hospital (a public health center dedicated as an isolation center for COVID-19 patients) in Benghazi city – Libya between January 2021 and December 2021, was performed, COVID-19 was confirmed by a positive PCR test for SARS CoV2. We specifically looked for levels of cTnI during admission. Elevated cTnI was defined above the upper limit of normal according to our local laboratory assay ($>$0.3 ng/mL).

Results: In total, 94 patients had a documented troponin level in their files, all of them had moderate to severe illness. From 94 patients, 40 had elevated cTnI concentrations. Out of 40 patients 28 died in hospital (70%) their levels were as follow: 0.3 to 0.9 ng/mL 11 (27.5%), 17 (42%) $>$0.9 ng/mL. In the elevated troponin levels group, there was no gender difference, (20.2%) men and women (21.2%). Fifty percent of patients who died had a hospital length of stay $<$10 days, and mortality rate to diabetic, hypertension, and established CAD patients was 30.5, 35, and 36%, respectively.

Conclusions: In the group of patients with elevated levels of troponin I, mortality rate was higher in those with a level exceeding 0.9 ng/mL. Also the length of stay in hospital was shorter in comparison to those with normal cTnI which may reflect a more sever disease.

PA21. Unusual Presentation of Tetralogy of Fallot

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Introduction: Tetralogy of Fallot (TOF) is the most common cyanotic congenital heart defect and occurs in 5 to 10% of all CHDs. It included: a large VSD, RVOT obstruction, RVH, and overriding of the aorta. TOF may be associated with pulmonary artery atresia and absent pulmonary valve and is rarely associated with the absence of either pulmonary artery branch. We present a 3-year-old female child with TOF and pulmonary trunk agenesis, Rt pulmonary artery agenesis, and hypoplastic Rt upper and lower pulmonary veins with Rt lung hypoplasia. Case presentation: 3-year-old female child was term born via cesarean section with average body weight and diagnosed at 5 days of age as TOF with Small Paul. Artery and kept on Inderal and iron with regular follow-up. She has two healthy sisters, and one brother died at neonatal age (b/c of birth asphyxia). No F/H of CHD. O\E: stable, no dysmorphic features, no RD, mild cyanosis, mild clubbing, average body built. last O_2 saturation (90–92%), BP 90\50 mm Hg, weight 12 kg (10th cent), height 94 cm at 50th cent. Chest: No deformity, visible pulsation, apex beat at Lt parasternal border at 5 TH ICS. Normal s1 & amp s2 with ejection systolic murmur grade 5, no heave. Echo: S. solitus, mesocardia, dextroposition, large VSD, overring aorta, a vessel from RV, looks like the main pulmonary artery with infundibular stenosis CXR: mesocardia with small Rt lung field. ECG: sinus rhythm, RAD, RBBB. Inv.: Hb 11.1 g/dL, MCV 76FL, Hct 34%.

Discussion: The right pulmonary artery is absent more often than the left. The absence of the left pulmonary artery is associated mostly with other congenital malformations. The left lung usually receives blood supply via one or more expanded bronchial or accessory arteries. The absence of the right pulmonary artery is usually not associated with other malformations. The affected lung is generally supplied via an artery that arises from the ascending aorta. Because the lung is receiving systemic and abnormal blood supply, it often becomes hypoplastic.

Conclusion: Our case was diagnosed at neonatal age, as the case of classic Fallot. She was on a regular follow-up until the age of 2 years. She was planned for surgery by the Novick team in BMC, but the surgery was postponed because they had doubts about pulmonary artery anomalies. At that time, she was sent for CT angiography (discovered the pulmonary trunk agenesis and right pulmonary artery agenesis, with prominent patent, left main pulmonary artery 1.7 cm with good pulmonary distribution to the left lung, hypoplastic right upper and lower pulmonary veins.

PA22. Surgical Treatment of Recurrent Thigh Sarcoma Invading the Femoral Vessels

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Introduction: Undifferentiated pleomorphic sarcoma (UPS) is a soft tissue sarcoma (STS), occurring most commonly on the lower extremities and thighs. It is characterized by high local recurrence and significant metastasis. Case report: A 60-year-old man, operated on for a UPS of his right thigh 2 years previously, presented with a swelling of the medial

right thigh. MRI revealed a 12-cm heterogeneous muscle mass, which invaded the superficial femoral artery and the femoral vein. We performed an en-bloc resection of the tumor and the invaded vessels. Artery and vein grafts with lateral-to-end anastomosis were performed. The postoperative course was uneventful.

Discussion: Soft tissue sarcomas (STS) are mesenchymal tumors that account for 1% of all cancers. Surgical treatment must balance oncological with functional considerations because wide resection would compromise function by soft tissue defects or vascular lesions. In this case, to avoid amputation and preserve limb function, we performed an arterial graft to restore lower limb vascularization and a veinous graft to prevent edema and thrombosis. The management must be multidisciplinary. The NCCN guidelines also support radiotherapy and chemotherapy as adjuvant options to reduce recurrence in STS with high-risk features (high-grade tumors, large tumors, deep tumors, tumors abutting neurovascular structures, pathological findings such as the UPS type).

Conclusion: Soft tissue sarcoma is rare. Most of them are revealed by a limb tumoral mass. Recognition of UPS with its high recurrence is essential for patient prognosis and management must be multidisciplinary.

PA23. Digoxin Toxicity Mistaken for ST-Elevation Myocardial Infarction

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Introduction: Digoxin toxicity may cause many ECG changes, including ST elevation, depression, and cardiac dysrhythmias. Case Presentation: A 64-year-old man presented with a past medical history of non-ischemic cardiomyopathy. He presented with nausea and vomiting for 1 day. On arrival to ED, ECG with diffuse ST depression and with ST elevation in AVR and less marked in V1. STEMI was called. The patient underwent a coronary angiogram and showed normal coronaries. His laboratory showed normal renal function, potassium of 5.3 mmol/L, and digoxin level >10 ng/mL. Digoxin toxicity was diagnosed. The patient was treated with digoxin immune FAB. Patient symptoms and ECG changes have resolved.

Conclusion: Diagnosis and treatment of digoxin toxicity can be clinically challenging, and a high index of suspicion is needed.

PA24. The Value of Multimodality Imaging in the Diagnosis of Aortic Valve Prosthesis Malfunction

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Introduction: Malfunctioning is one of the complications of mechanical valves, and there are many causes, including thrombus formation, pannus, or infective endocarditis. Case Presentation: A 60-year-old male presented with exertional dyspnea, orthopnea, and palpitations for 3 weeks. PMH: T2DM, HTN, tobacco abuse and status post-St Jude leaflet mechanical aortic valve replacement in 2000. On examination, BP was 150/80 mm Hg, HR was 90 bpm, RR 16, and SO_2 93% on room air. A cardiovascular examination revealed regular pulse with soft heart sounds and no metallic click heard. There was a grade II/IV ejection systolic murmur and early diastolic murmur at the aortic area. A chest examination revealed bibasilar crackles. No JVD or peripheral edema was noted. Blood work was unremarkable, and INR was 2.1. ECG shows sinus rhythm with LVH pattern. An echocardiogram revealed an aortic valve area of 0.8 cm^2 by continuity equation, Acceleration time of 110 milliseconds, an elevated gradient across the aortic valve with a peak velocity of 4.1 m/s, and mean gradient of 41 mm Hg, and an effective orifice area of 0.6 cm^2 was noted. In addition, there was moderate to severe aortic regurgitation. LVEF was 60 to 65%, and cine imaging revealed restricted motion of both leaflets of the aortic prosthesis. Cardiac CTA revealed abnormal tissue around the prosthetic heart valve consistent with pannus. The patient was referred to surgery.

Discussion: Pannus is one of the critical causes of prosthetic valve malfunction leading to pathological stenosis and regurgitation due to tissue interference with the leaflet malfunction. Significant differences to consider are thrombus and vegetation. Malfunctioning prosthetic valves require careful history through physical examination and multimodality imaging to confirm the correct diagnosis. The echocardiogram provided a functional and hemodynamic assessment of the aortic prosthesis malfunction, while the cardiac CTA provided anatomical information and was very useful in distinguishing pannus from thrombus.

Conclusion: Pannus formation of the prosthetic valves should be considered in patients with a history of the prosthetic valve with elevated Doppler velocities and gradients. Differential diagnoses should consider thrombus, vegetation, and primary degeneration of the prosthesis. The use of multimodality imaging can help for accurate diagnosis.

PA25. Wolf Parkinson White (WPW) Syndrome and Atrial Fibrillation

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Introduction: Pre-excitation or Wolf Parkinson White (WPW) syndrome is a condition in which patients have an additional pathway, an accessory pathway (AP), that directly connects the atria and the ventricles. Atrial fibrillation (AF) is not uncommon in WPW syndrome and may present as a life-threatening arrhythmia. Case Presentation: A 17-year-old Libyan male patient with no significant past medical history. He reports a history of palpitations in the last 3 years for which he did not seek any medical advice. There was no significant family history of sudden death or genetic disorders. Social history was insignificant. He is not using any medications. General appearance was as follows: conscious oriented, blood pressure 70/40, and heart rate around 170 bpm. Investigations show WBC 4.7, Hgb 14 g/dL, platelet 234, potassium 4.2 mmol/L, urea 32 mmol/L, creatinine 0.9 mg/dL, calcium 9.3 mg/dL, magnesium 2.1 mmol/L, TSH normal, urine analysis is insignificant, CRP is negative, cardiac biomarkers within normal range. ECG shows rapid, irregular wide complex tachycardia heart rate> 200 bpm. Management: The patient received IV amiodarone in the ED, however, it was unsuccessful in terminating the arrhythmia. Since he was hemodynamically unstable with low BP, he was successfully cardioverted. The patient was then admitted to CCU as a case of pre-excited AF, and echocardiography showed no structural heart disease. The patient was discharged home with flecainide and was in stable condition. He is planning to have an electrophysiological study and ablation as soon as possible.

Discussion: In patients with pre-excitation, conduction of AF can occur preferentially through the AP due to its shorter refractory period compared with the AV node. Therefore, AV nodal blocking agents like adenosine should be avoided in patients with pre-excited AF since they may exacerbate tachycardia and contribute to the development of ventricular fibrillation and hemodynamic collapse.

Conclusion: This case serves as an important reminder that AF in the presence of an accessory pathway may present with unusual ECG features, potentially leading to incorrect diagnoses and treatments that may be life-threatening.

PA26. Estimation of Platelets Count and Platelets Indices among Patients with Ischemic Heart Disease in Benghazi

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Introduction: Ischemic heart disease (IHD) is mainly caused by atherosclerosis and its risk factors. Platelets and their activity are important in initiating atherosclerotic lesions and coronary thrombus formation. Larger platelets are enzymatically and metabolically more active and have a higher potential thrombotic ability than smaller platelets. Aims of the study: To study the changes in platelet volume indices and count in IHD and assess their usefulness in predicting coronary events. Method: This case–control study was conducted in Benghazi Medical Center from October 2019 to August 2020. We aimed to measure platelet count and indices. A total of 200 individuals were included, 100 used as patients, their age range from 40 to 70 years, and 100 individuals as a control group. EDTA anticoagulated venous blood samples were collected from known diagnosis IHD patients and the control group. The patients were classified into two groups: stable and unstable IHD patients. The samples were analyzed using an automated hematological analyzer to measure platelet count and indices (mean platelet volume, distribution width, and large cell ratio).

Result and Conclusion: In the present study, the platelet indices, MPV, PDW, and P-LCR were assessed in a group of IHD patients and compared control group, and they were found to be statistically significant (p-value <0.05). MPV in various groups are: group 1 (11.37 ± 1.95) fl., group 2 (10.28 ± 0.67), and group 3 (8.65 ± 0.77); PDW in group 1 (16.47 ± 1.94) fl, group 2 (13.44 ± 1.47), and group 3 (12.45 ± 1.02), p-value 0.33; PLCR in group 1 (37.31 ± 5.99) %, group 2 (26.84 ± 4.5), and group 3(19.12 ± 2.1), p-Value <0.05. Also, the present study found that PVI (MPV, PDW, and P-LCR) are raised in patients who have suffered an acute coronary event compared with controls and those with stable CAD. The results are similar to other studies performed by other workers. The present study found that there is a statistically significant difference between patients (group 1 ACS) as compared with stable IHD (group 2) and normal controls (p-value: 0.03) concerning platelets count. The mean of platelets counts in various groups are: group 1 (226.2 ± 66.9) thousand cells per mL, group 2 (255.25 ± 72.25), and group 3 (235.92 ± 33.97), p-value (0.03). Antiplatelet drugs were used by 16.3% of group 1, 98% in group 2, and 3% in group 3, and there was a statistically significant difference with p-value 0.01. There was no significant change in the study group's PLTS count, PMV, PDW, and PLCR according to gender. PLT count in males (228.39 ± 48.4) thousand per mL, (256.5 ± 62.1) in the female with p-value 0.41. MPV counts are: in males (228.39 ± 48.4) fl, (256.5 ± 62.1) fl in females with p-value 0.41. PDW counts are: in males (13.8 ± 2.3) fl, (13.4 ± 1.8) fl in the females with a p-value 0.56. No significant platelet count changes were noted according to age with p-value >0.05.

PA27. The Outcome of Pediatric Cardiac Surgeries in Benghazi Medical Center from 2012 till 2021

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Introduction: The performance of pediatric cardiac surgery programs should be continually evaluated to improve the quality of patient care.

Methods: In Benghazi Medical Center, a retrospective cohort study was conducted from March 2012 to June 2021 on all children and adults undergoing cardiac surgery for congenital heart disease.

Results: In total, 480 patients (median age: 48 months) from different regions of Libya had been operated on for cardiac surgery according to the type of congenital heart disease they had. Most commonly they had VSD (28.3%), ASD (13.1%), TOF (12%), AV canal defect (11.8%), PDA only (7.7%), PDA with other congenital cardiac anomaly (20%), B-T shunt (6.25%), Glenn (3.7%), porto valvoplasty (2.7%), pulmonary valvoplasty (3.5%), and Rastelli operation(2%).

Discussion/Conclusion: We demonstrated aggregate improvement in the quality of care and services for the patients undergoing cardiac surgery at Benghazi medical center. Each workshop gave progressive facilities to run more complicated procedures than the previous one and more training programs to the Libyan teams (doctors and nurses).

