essential once diagnosed to prevent further embolic events. Cerebrovascular events in young patients should raise suspicion of myxoma, making echocardiography an essential diagnostic tool. Additionally, coronary angiograms should be performed in resource-equipped centres to assess for any co-existing coronary artery disease and to determine if the artery is supplying the myxoma. In our case, the patient successfully underwent both tumour resection and percutaneous coronary intervention (PCI) during the same hospitalization, which proved to be both time-efficient and cost-effective for both the patient and clinician.

Conclusion This report emphasizes atrial myxoma should be considered as a potential source of embolism in young patients presenting with acute stroke. Early diagnosis with bedside echocardiography and prompt surgical intervention are crucial to reduce morbidity.

APCU 13 **SOLVING THE PUZZLE OF A BREATHLESS LADY- RIGHT DIAGNOSIS, RIGHT TREATMENT FOR THE RIGHT PATIENT**

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Introduction Diagnosing connective tissue-related pulmonary hypertension (PH) poses challenges for clinicians due to overlapping PH phenotypes, which complicate treatment. We present a case of mixed pre- and post-capillary pulmonary hypertension in a patient with systemic sclerosis (Ssc).

Case Presentation 49-year-old woman, initially diagnosed with mixed connective tissue disease 15 years ago, was treated with methotrexate, prednisolone, and hydroxychloroquine. Despite treatment, her symptoms, including cough and shortness of breath, progressively worsened. Earlier this year, her diagnosis was revised to systemic sclerosis, as her clinical features aligned more with this condition. She was started on mycophenolate mofetil (MMF) and prednisolone. A high-resolution CT confirmed interstitial lung disease (ILD), and she was commenced on nintedanib. Despite treatment, her symptoms persisted, leading to a cardiology referral for suspected pulmonary hypertension (PH). ECG showed p-pulmonale and right heart strain pattern, and echocardiography revealed dilated right heart and pressure overload with TR Vmax of 3.87ms. Right heart catheterization confirmed mixed pre- and post-capillary pulmonary hypertension, with mPAP of 53 mmHg, PVR 9.33WU and PCWP of 25 mmHg. She was started on bosentan and tadalafil, with gradual dose titration. At follow-up, she showed marked improvement in her 6-minute walk test and overall symptoms.

Discussion Systemic sclerosis is difficult to diagnose due to its varied manifestations which explains the delayed diagnosis in our patient. Pulmonary hypertension is a common and serious complication of systemic sclerosis, presenting in various phenotypes due to the disease's heterogeneity. Our patient exhibited mixed pre- and post-capillary PH, with myocardial fibrosis likely contributing to the post-capillary component. Studies show that SSc patients with PH due to left-ventricular diastolic dysfunction (Group 2) have double the risk of death compared to those with SSc-PAH (Group 1). This elevated risk is partly because current PH treatments mainly target PAH rather than other PH forms. Given the mixed phenotype in our patient, she was treated with an endothelin receptor antagonist and a phosphodiesterase-5 inhibitor, leading to significant improvement.

Conclusion Early diagnosis of the primary disease and precise phenotyping of pulmonary hypertension are critical in managing connective tissue disease-related PH, ensuring the most effective therapeutic strategy is adopted.

APCU 14 **OUTCOME PREDICTORS IN PATIENTS WITH PERIPARTUM CARDIOMYOPATHY: A SYSTEMATIC REVIEW**

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Introduction Peripartum cardiomyopathy (PPCM) is a cardiovascular condition that occurs during late pregnancy or within five months postpartum, often leading to poor clinical outcomes. The global incidence of PPCM is estimated to range from 1 in 100 to 1 in 20,000 live births, depending on the population and geographic region. Identifying predictors of poor clinical outcomes in PPCM is essential for optimizing care management and improving the prognosis of affected patients.

Methods A literature search was conducted in the PubMed database using the keywords (((peripartum cardiomyopathy) OR (PPCM)) AND (outcome)) AND (predictor), limited to articles published in English between 2014 and 2024. The study focusing on predictors to assess outcome of PPCM patients.

Results Eleven studies met the inclusion criteria, providing data on 1259 patients with PPCM, which revealed that elevated heart rate (adjusted odds ratio 5.35, confidence interval 1.23–23.28, p=0.025), high N-terminal pro-hormone brain natriuretic peptide (NT-proBNP) levels (log-rank test p-value 0.018), and low systolic blood pressure (p=0.0023) are significant predictors of mortality and reduced left ventricular ejection fraction (LVEF). Sinus tachycardia and prolonged QT intervals (QTc) on baseline electrocardiography (ECG) are also associated with poor outcomes (OR 6.34, 95% CI 1.06–37.80, p=0.043). Furthermore, right ventricular dysfunction and elevated pulmonary artery systolic pressure correlate with adverse events such as death or recurrent hospitalizations (95% confidence interval: 1.11–9.28, p=0.03). Additionally, a low Prognostic Nutritional Index (PNI) is a key indicator of poor outcomes (95% confidence interval 0.729–0.888, p<0.001).

Discussion These findings indicate that factors such as heart rate, NT-proBNP levels, systolic blood pressure, and PNI can provide valuable insights into the prognosis of PPCM patients. Moreover, ECG abnormalities, including prolonged QTc and sinus tachycardia, along with right ventricular dysfunction and

systolic pulmonary artery pressure, serve as important prognostic indicators for predicting clinical outcomes.

Conclusion A comprehensive assessment of these factors can enhance the ability to predict outcomes and tailor treatment strategies for PPCM patients. Close monitoring of these parameters is crucial for improving clinical outcomes and optimizing the management of PPCM.

APCU 15 AWARENESS OF HEART ATTACK SIGNS AND SYMPTOMS AMONG PUBLIC IN SABAH HEART CENTRE

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Introduction Heart attack, a worldwide phenomenon, remains one of the leading causes of mortality among adults. In Malaysia, it accounts for 17.0% out of 109,155 medically confirmed deaths. This condition can occur suddenly or may be preceded by pre-heart attack symptoms that appear several hours or even days before the event. It is essential for individuals to recognize the signs and symptoms of a heart attack, which include chest pain, light-headedness, fainting, shortness of breath, nausea, vomiting, and fatigue, to ensure they can seek immediate medical attention. This study aims to assess the level of public awareness regarding the signs and symptoms of a heart attack and determine the relationship between this awareness and demographic factors.

Methods A quantitative, cross-sectional study was conducted among 113 members of the general public at Sabah Heart Centre. The sampling method used was simple random sampling. Data were collected using a questionnaire and analysed using IBM SPSS version 26.

Results This study revealed that the majority of the public (70.8%, n = 80) are aware of the signs and symptoms of a heart attack. However, there is a notable lack of awareness regarding discomfort in the jaw, neck, and back, sudden lethargy, and sudden loss of vision in one or both eyes (all < 70%). A significant relationship was also reported between age and the level of awareness (p = 0.009).

Discussion Timely reperfusion therapy for heart attack victims is critical to improve survival rates. The results of this study are consistent with previous research, which identified poor awareness of heart attack signs and symptoms as a contributing factor to delayed treatment and higher mortality rates. Notably, respondents were aware that chest pain is a symptom. However, they were less familiar with other key symptoms. This suggests that more effective health education programs are required to raise awareness of the signs and symptoms of a heart attack. Hence, digital platforms and social media are recommended as effective channels to disseminate information related to heart health to all segments of the population.

Conclusion Nearly 30% of the respondents exhibited poor awareness of the signs and symptoms of a heart attack. Therefore, efforts to enhance awareness should be expanded through multiple channels, including mass media, community outreach events, healthcare provider education, and digital platforms.

APCU 16 A RETROSPECTIVE STUDY OF PERMANENT PACEMAKER IMPLANTATION IN A UNIVERSITY HOSPITAL

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Introduction Permanent pacemaker implantation is a common procedure to manage various cardiac rhythm disorders. Understanding the prevalence and the short- and long-term outcomes associated with pacemaker implantation is crucial for optimizing patient care and improves prognosis.

Objective This study examined the clinical outcomes and complications associated with the implantation of pacemaker devices in HPUSM.

Methods This is a retrospective, single centre study conducted on 151 consecutive patients who had pacemaker implanted between 2014–2024. Sociodemographic factors, clinical characteristics, and complications data were extracted from medical record unit. The chi-square test or Fisher's exact test was performed to evaluate factors associated with complications.

Results Majority of patients were between 61–80 years (66.9%), and (62.9%) were males. Hypertension was the most common comorbidity (68.9%), followed by hyperlipidaemia (56.3%), ischemic heart disease (41.7%), and diabetes mellitus (39.7%). Complete heart block was the main indication for pacemaker implantation (55.6%), followed by sick sinus syndrome (34.4%). Dual-chamber pacemaker in DDD mode was the most commonly utilized (92.1%) and majority of RV lead were placed at RV apex (78.1%) and the rest were implanted in the alternate site. The overall complication rate was 12.5%, including lead dislodgement 4%, infection 1.3%, pneumothorax 1.3%, hematoma 0.7%, cardiomegaly 2.6%, and heart failure 2.6%. In the apical group, there were four cases of lead dislodgement, compared to two cases in the alternate site group (p= 0.391). Additionally, four patients in the apical group experienced heart failure (p= 0.369) and no case of heart failure in alternate site. One case of hematoma was reported in the apical group, and there were two cases of pacemaker infection in the same group (p= 0.610). For pneumothorax, one case was observed in each group (p=0.390).

Conclusion This study established a pacemaker implantation and follow-up service at our institution, supported by a comprehensive database. The primary indication for implantation was complete heart block. Dual chamber pacing was more commonly used. Elderly male patients with ischemic heart disease and comorbidities required more pacemaker implantations. Alternate site pacing was associated with fewer complications, including lead dislodgement, heart failure, and infection, comparable with evidenced literature, although these findings were not statistically significant.

APCU 17 THE CROCHETAGE LADY

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Introduction Atrial septal defect (ASD) is one of the most common congenital heart defects diagnosed in adulthood.