

### **OP30 POCUS-ECHO A MODALITY OF CHOICE IN EARLY DETECTION OF INTRACARDIAC MASS IN A&E SETTING**

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#### **Introduction**

Cardiac Myxoma (CM), a form of primary cardiac tumor (PCT), is mostly prevalent in adults aged above 50 with approximately 0.5/million population diagnosed per year. Further to clinical diagnosis, CM can be confirmed using echocardiogram. Detection via bedside POCUS-ECHO may prove critical in diagnosing any intracardiac tumors, enabling patients to seek early treatment.

#### **Case Presentation**

A 31-year-old gentleman presented with typical anginal chest pain associated with concomitant palpitation lasting around 5 minutes. Initial physical examination there was mild dehydration with unremarkable cardiovascular findings. Heart rate was tachycardic while other parameters were normal. First ECG showed Sinus Tachycardia, heart rate of 146 with no ischemic changes. Patient was placed under cardiac monitoring with initial treatment of saline 250ml bolus over 30 minutes. Upon completion of fluid resuscitation, HR improved to 96bpm however cardiac monitoring showed occasional premature ventricular contractions. On repeated physical assessment there were skipped beats on auscultation. Bedside echocardiography showed good cardiac contractility with small pedunculated mobile mass on the

mitral valve, otherwise no chamber or regional wall abnormality. Patient was admitted for close monitoring and investigation on the nature of the intracardiac mass.

#### **Discussion**

Whenever an adult presents to A&E with complaints of chest pain, the infamous life-threatening chest pain would be considered. PCT's are rare, at only 0.0017-0.03% prevalence in reported autopsy case series. 75% are benign and mostly Myxoma, occurring about 50% in women aged between 50-60. Clinical observations indicate 75% of cases often develop in the left atrium, 18% in the right atrium and 3% in each ventricle. CM is mostly diagnosed via transthoracic and transesophageal echocardiography. Findings include pedunculated and solitary mass arising primarily adjacent to the lamina of the fossa ovalis. CMs may be unfamiliar to most medical practitioners resulting in misdiagnosis. Differential diagnosis should include intracardiac thrombus and other cardiac tumors.

#### **Conclusion**

Young male adults with PCT are especially rare. A high index of suspicion is important for early diagnosis of CM in young patients when other viable causes of chest pain have been ruled out. Coupled with Critical Care Ultrasound and POCUS-ECHO in A&E, this may facilitate prompt treatment and disposition to cardiac center