

### APCU 36 PRELIMINARY FINDING OF ORCUS: A HOME-BASED CARDIAC REHABILITATION APPLICATION FOR STABLE ISCHAEMIC HEART DISEASE

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**Introduction** Cardiac rehabilitation is a structured program provided to patients with major cardiovascular diseases, shown to enhance functional capacity, reduce morbidity and mortality rate worldwide. However, in Malaysia, the availability of such programs is limited due to disparities in healthcare access. This led to our objective of testing a newly developed AI-based home health monitoring cardiac rehabilitation application (ORCUS) designed to improve patients' functional status.

**Methods** This was a prospective study conducted on patients with stable ischaemic heart disease patients at Sultan Ahmad Shah Medical Centre @ IIUM. The inclusion criteria were patients over 18 years old, owner of an Android smartphone, and literate in using applications. Patients were excluded if they were dependent on activities of daily living (ADLs) or unable to adhere to a daily exercise regime. After obtaining consent, baseline demographic details were collected, and patients were instructed on the exercise regime through the ORCUS application. Subsequently, patients underwent functional assessments, including an exercise stress test and 6-minute walking test, which repeated at 8 weeks after completing 56 activities with ORCUS.

**Results** A total of 10 patients were analysed with 90% of them were male (n = 9), median age of 51 years (IQR 47 – 63) and most of them were unstable angina, 60% (n = 6), with STEMI of 30% (n = 3), managed with revascularization, 60% (n = 6). For the functional assessments, an increase average SpO2 during 6-minute walking test (6MWT) was recorded after completing the activities in ORCUS, with a median of 96.5% (IQR 96 – 97) compared to a median 98% (IQR 97 – 98), p < 0.05, together with increment of baseline SpO2 with a median of 97% (IQR 96.2 – 98) compared to a median 99% (IQR 97 – 99), p = 0.01. In term of exercise stress test (EST), an increase in total time during stress test was recorded with a median of 10 mins (IQR 7.5 – 11.1) compared to a median of 10.2 mins (IQR 9.3 – 13.2), p = 0.04 and reduction of baseline heart rate prior EST with a median of 75 bpm (IQR 65 – 82) compared to a median of 67 bpm (IQR 60 – 72), p = 0.04.

**Conclusion** As conclusion, the home-based cardiac rehabilitation application has shown effectiveness in enhancing patients' functional status especially with 6MWT and EST. However, as the study is still ongoing, additional data is needed to fully evaluate the feasibility of ORCUS for patients with stable ischaemic heart disease.

### APCU 37 LEFT ATRIAL MYXOMA WITH FEEDING VESSEL FROM LEFT CIRCUMFLEX ARTERY

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**Introduction** Atrial myxoma is the most common benign primary cardiac tumour with 75% of myxoma originates from left atrium. It comprises of 50–85% of all primary cardiac tumour and incidence of 0.03% in general population. We present a case of giant left atrial myxoma with feeding vessel from left circumflex artery.

**Case presentation** A 69-year-old lady came to our centre to perform a routine echocardiogram due to mild symptom of shortness of breath. She has underlying hypertension, atrial fibrillation on warfarin therapy and previous history of mitral valve repair in 2005. Echocardiogram revealed LVEF 58%, enlarged left atrium with diameter of 67mm, mass seen at left atrium attached to interatrial septum with diameter 42 mm × 35 mm. Mechanical MVR opened well with no valves regurgitation noted. Cardiac MRI showed left atrial myxoma mass, diameter 50mm × 43mm and heterogenous component of haemorrhage, hemosiderin with calcification and fibrosis within. Severe left atrial enlargement and severe dilated left ventricle noted as well. Elective coronary angiogram subsequently arranged for coronary artery disease assessment. Coronary angiogram revealed large feeding vessel from left circumflex artery communicating with contrast staining over left atrial myxoma. Referral to cardiothoracic surgery done, decision was made for surgical removal of left atrial myxoma.

**Discussion** The clinical diagnosis of cardiac myxoma is often challenging because of its non-specific symptoms and signs. It can cause serious morbidity such as sudden cardiac death and systemic emboli if not treated promptly. Surgery remained the definitive treatment for this condition.

**Conclusion** Rare neovascularization originating from either right coronary artery or the left circumflex artery was reported in a left atrial myxoma. We want to highlight the importance of coronary angiogram to help decide priority of surgery.

### APCU 38 PREDICTIVE FACTORS FOR SEVERE ACUTE CORONARY SYNDROME (ACS) AMONG GOOD LDL ACHIEVERS: UNCOVERING HIDDEN RISKS

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**Introduction** The relationship between LDL cholesterol levels and atherosclerotic cardiovascular disease (ASCVD) is complex and non-linear. Recent studies suggest that achieving low LDL levels doesn't guarantee protection against acute coronary syndromes (ACS), with some patients experiencing severe clinical outcomes.

**Objectives** To identify potential predictors of severe clinical presentation and severe coronary artery disease among ACS patients with good LDL levels.

**Methods** This single-centre retrospective cohort study comprised 280 ACS patients divided into good LDL control (n=69) and poor LDL control (n=211). Demographic characteristics and lipid profiles were collected. Outcomes looked into the clinical ACS severity using the GRACE score, and angiographic severity based on the Gensini score.

**Results** Despite achieving their LDL targets, patients with good LDL control had similar coronary artery disease severity to those with poor LDL control. The median Gensini scores were 23.5 (interquartile range 35) in the good LDL group