

**Discussion** Although PDA is generally a mild congenital condition in adults, cases with severe pulmonary hypertension pose significant management challenges. The current European Society of Cardiology guidelines assign a class IIb recommendation for transcatheter PDA closure in adults with severe pulmonary hypertension, emphasising the importance of individualised decision-making in specialised centres. This case illustrates successful PDA closure based on favourable test occlusion results, leading to significant clinical improvement and reduced pulmonary artery pressure. Despite positive outcomes, the potential for residual heart failure and future hospitalisations highlights the need for rigorous patient selection and long-term follow-up.

**Conclusion** PDA closure in adults with severe pulmonary hypertension can yield substantial clinical benefits when patients are carefully selected. Individualised treatment within expert centres is essential to achieve a favourable balance of risks and benefits in this complex patient population.

#### APCU 34 GEMELLA MORBILLORUM AS UNUSUAL CULPRIT OF INFECTIVE ENDOCARDITIS

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**Introduction** Infective endocarditis (IE) is defined as infection of the endocardium. The annual incidence of IE is 3–9 per 100,000 people year with overall mortality of twenty five percent based on data extrapolated from developed country. Gemella Morbillorum is a rare causative organism for endocarditis which may lead to cardiogenic shock and death.

**Case Presentation** A 34 years old male with underlying chronic rheumatic heart disease presented with fever, loss of appetite, loss of weight, reduced effort tolerance and bilateral lower limb swelling for two weeks. Physical examination revealed patient had multiple dental carriers, Janeway lesion over palm and soles and cardiac auscultation revealed early diastolic murmur over left sternal edge. Blood investigations revealed elevated total white cell, Erythrocyte sedimentation rate and C- reactive protein. ECHO revealed vegetation at right coronary cusp of aortic valve area 1cm<sup>2</sup> with ruptured aortic valve, severe aortic regurgitation, severe mitral regurgitation and ejection fraction more than sixty percent. Blood culture grew Gemella Morbillorum. Patient was started on IV Rocephin and IV Gentamycin. Patient was referred to cardiothoracic team for urgent valve replacement but patient refused surgical intervention. Medical therapy was continued. Subsequently patient succumb and died few days later.

**Discussion** This patient had risk factor for IE which is poor dental hygiene. Apart from this, Gemella Morbillorum IE commonly affects left side of the heart which was seen in this patient. It is important to recognize Gemella moribillorum as an emerging pathogen causing IE. The slow growth of the organism in blood agar, coupled with ability to rapidly destroy the valve, demands high index of suspicion. This is particularly crucial to allow appropriate initiation of therapy at a timely manner. Optimal therapy for Gemella moribillorum IE should include the utilization of both appropriate medical

therapy and surgical interventions to achieve the greatest mortality benefit.

#### APCU 35 A MULTICENTRE STUDY ON NEWLY DIAGNOSED VALVULAR HEART DISEASE IN A STATE IN MALAYSIA

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**Introduction** Despite valvular heart disease (VHD) being a major contributor to cardiovascular health issues globally, limited epidemiological data exist for Malaysia.

**Objective** To examine the incidence, characteristics, and reasons behind treatment refusal in VHD.

**Methods** A cross-sectional, multi-centre study was conducted in Perak, Malaysia, using echocardiography data collected over six months to evaluate newly diagnosed VHD patients. Demographics, symptoms, aetiology, and disease severity were assessed.

**Results** Echocardiography data from 12,610 patients revealed a 7.5% incidence of VHD. Mitral regurgitation (MR) was the most common, accounting for 34.1%, followed by tricuspid regurgitation (TR) at 32.3% and aortic regurgitation (AR) at 19.2%. Aortic stenosis (AS) and mitral stenosis (MS) were less frequent, at 5.6% and 1.6%, respectively. Most VHD cases were mild (65.6%), followed by moderate (29.2%) and severe (5.1%). The median age was 67, with a slight female majority, and the median LVEF was 57%. While 32.6% were asymptomatic, dyspnoea was the most common symptom (48.8%). Overall, pulmonary hypertension was present in 35.3%, whereas atrial fibrillation (AF) was found in 12.2%. In terms of aetiology, the most common overall was functional aetiology (59%). Rheumatic heart disease (RHD) affected 51.7% of MS cases, while degenerative aetiology was the main cause for AR (74.9%), AS (84.6%), and primary MR (71.4%). Both TR and pulmonary regurgitation (PR) were predominantly due to functional aetiology at 98% and 99%, respectively. Although RHD constituted only 6.2% of all VHD cases, it affected the mitral valve in 56.1%, with over half (52.6%) of RHD cases being moderate or severe. AS was strongly associated with hypertension and dyslipidaemia ( $p < 0.05$ ), while TR was more common in females ( $p < 0.05$ ). MR had strong associations with AF, chronic kidney disease (CKD), and ischemic heart disease (IHD) ( $p < 0.05$ ), with MR being the most common valve lesion in AF (34.3%), CKD (36.4%), and IHD (35.8%). Despite 6.7% of patients requiring valve intervention, only 24.2% agreed to proceed ( $p < 0.001$ ). The majority (36.3%) refused, primarily due to old age (62.5%) and fear of surgery (29.2%), while 39.4% were undecided. Multiple valves were involved in 72.6% of cases, with MR + TR being the most frequent combination (52.5%), primarily due to functional aetiology (75.2%).

**Conclusion** The incidence of VHD was 7.5%, with functional mitral regurgitation (MR) being the most common valve lesion. Patients primarily refused valve intervention due to old age. This study provides valuable insights into VHD in Malaysia.