



## *Brucella endocarditis* a Rare Case Having Multivalvular Involvement

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**ABSTRACT :** A rare case of *Brucella endocarditis* affecting two valves. A case report and review of literature. We present a very rare case of 45yr old male who came in contact with brucellosis while employed as a farm worker in the Middle East. He has continuous fever for 9 months and was treated medically. Subsequently, he developed severe aortic regurgitation and mitral regurgitation and presented with cardiac shock NYHA class 4. He had oliguria and hypotension. X-rays shows pulmonary oedema. 2D echo and Doppler study revealed mobile vegetation involving the aortic valve with severe aortic regurgitation, moderate mitral regurgitation and tricuspid regurgitation. The patient was taken up for emergency surgery at 11pm. His aortic valve was perforated and the aortic mitral continuity was disrupted thus explaining the moderate mitral regurgitation. The right ventricle was dilated resulting in moderate tricuspid regurgitation.

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### **Key Words :**

Aortic valve, Serological reports, *Brucella abortis*, *Brucella mellitans*, Cardiac shock

### **Case report :**

A 45yr old farm worker from Middle East presented with a history of sudden breathlessness, low urine output, and in the state of cardiogenic shock at 11pm. There was no history of cardiac symptoms, motor or sensory deficit. He had fever for 9 months, intermittent in nature and was diagnosed with brucellosis with serological tests. He was evaluated by a cardiologist by a 2D echo and Doppler and was diagnosed with severe aortic regurgitation with moderate mitral regurgitation and moderate tricuspid regurgitation with pulmonary hypertension. ECG showed sinus tachycardia for evaluation. His systemic BP was 70/40 mm Hg. He had an early diastolic murmur in aortic area (grade 2/6) and pan systolic murmur (grade 2/6) in mitral area conducting to the axillary region. Normal S1 S2 heart sounds were present. He had few crackles in the both infrascapular areas of the lung fields.

### **Chest roentgenogram :**

Chest roentgenogram revealed a normal cardiac configuration, evidence of pulmonary edema.

ECG showed signs of sinus tachycardia without LV hypertrophy.

### **Transthoracic echocardiogram :**

Aortic valve mass with severe aortic regurgitation and severe LV dysfunction. A sessile mass 14x10 mm attached to the inferior aspect of the left coronary cusp and its base extends to the interventricular septum. Mitral valve leaflet appear to be normal. There was a moderate regurgitation on Doppler. Based on the above findings we conclude that his clinical presentation was secondary to aortic valve endocarditis, probably due to sudden perforation of aortic cusp. Conventional coronary angiography was deferred in view of aortic valve mass. A 64 slicer Computerized Tomography was not available. With these investigations we took him for emergency surgery.

A middle-line sternotomy was done and we went on cardiopulmonary bypass by using aortic and bivalvular venous cannulae. After cross clamping the aorta, transverse aortotomy was

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