Large mural vegetation from right ventricle, accompanying tricuspid valve endocarditis

A 48-year-old man, with no history of intravenous drug abuse, presented to us with high-grade fever, cough and haemoptysis of 2 months duration. On examination, there was sinus tachycardia at 100 beats per minute, normal blood pressure and a short systolic murmur at apex. He had neutrophilic leukocytosis, elevated erythrocyte sedimentation sate and C-reactive protein levels were elevated. Chest x-ray showed non-homogenous opacities in right lower zone (figure 1A). Computerised tomography of the thorax revealed multiple cavitating nodules suggestive of septic pulmonary embolism (figure 1B). Although trans-thoracic echocardiography during second week of illness was normal, repeat evaluation (figure 2A–D) showed multiple vegetations over tricuspid valve and another 30×20 mm oval, mobile mass with a narrow peduncle attached to right ventricular moderator band; it oscillated variably, beat to beat, into the right ventricular inlet and outlet. There was severe tricuspid valvular incompetence without evidence of pulmonary artery hypertension. Blood culture showed methicillin-resistant staphylococcus aureus sensitive to vancomycin and gentamicin, which were initiated intravenously. He responded clinically by second week. Antibiotics were continued for 4 weeks. Follow-up echocardiography showed disappearance of tricuspid valve vegetation, persistence of right ventricular mass and severe tricuspid valvular incompetence. Considering the risk of pulmonary embolism, surgical excision of the yellow globoid, pedunculated mass (figure 3A) was done under cardiopulmonary bypass. Tricuspid

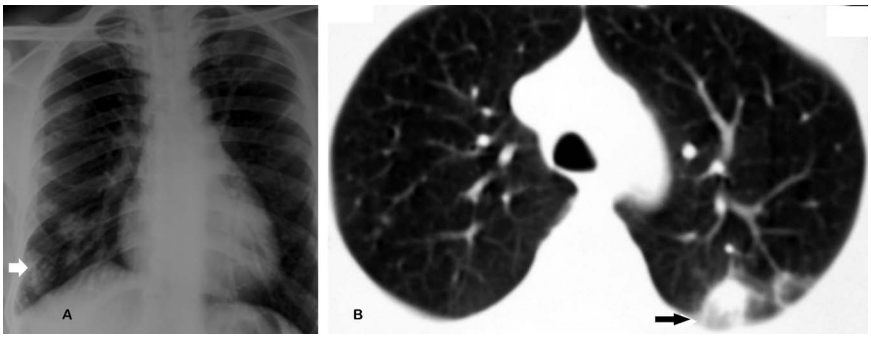

Figure 1 (A) Chest x-ray; non-homogenous opacities in right lower zone (white arrow). (B) Computerised tomography —thorax, showing cavitating nodule (black arrow).

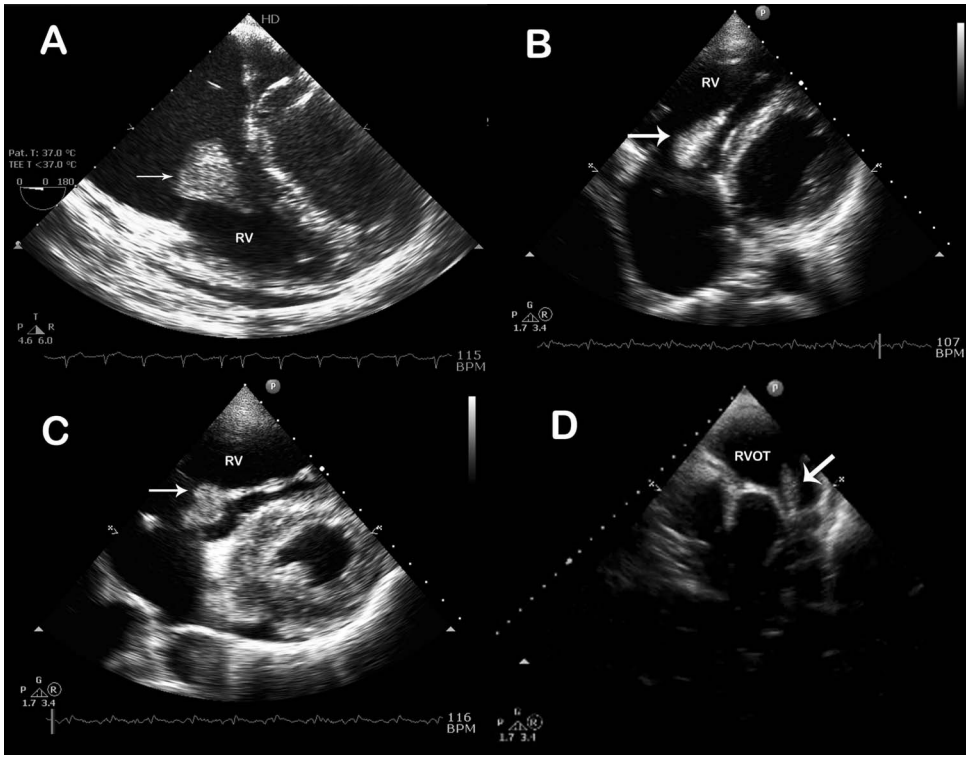

Figure 2 (A) Trans-oesophageal echocardiography four-chamber view, showing mass (white arrows) in the right ventricular cavity. (B) Trans-thoracic echocardiography tilted four-chamber view, showing mass arising from right ventricular moderator band. (C) Trans-thoracic echocardiography parasternal short axis view at mid cavity level, showing attachment of the pedicle to right ventricular moderator band. (D) Trans-thoracic echocardiography parasternal short axis view, showing mass in the right ventricular outflow tract.

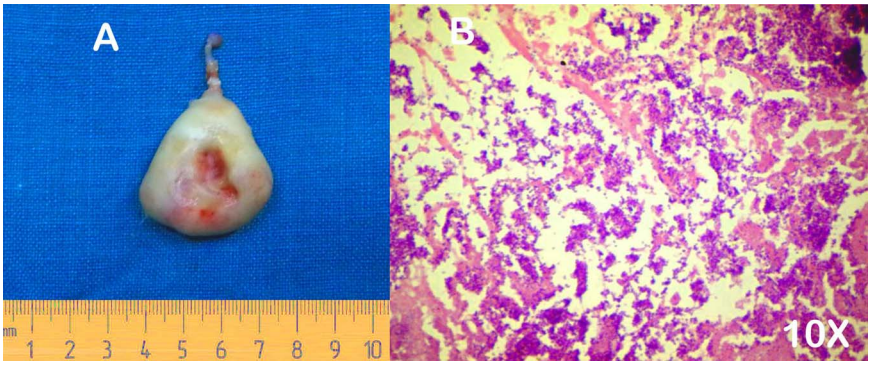

Figure 3 (A) Excised mass with its pedicle. (B) Microscopy (10×) after gram staining, showing numerous bacterial colonies with gram-positive staphylococci.

valve was replaced with a bioprosthesis because the anterior leaflet was destroyed. Microscopic examination after gram staining (figure 3B) showed multiple colonies of gram-positive staphylococci in a background of fibrinous exudate. Culture and sensitivity of the specimen yielded staphylococcus aureus. Patient did well at 6-months follow-up. Mural bacterial endocarditis is rare in structurally normal hearts.[1]

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