

Images in Congenital Heart Disease

Clinico-morphological correlations in a case of fungal endocarditis

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A 12-YEAR-OLD BOY ON IMMUNOSUPPRESSION and empirical intravenous antibiotics with relapsed acute lymphoblastic leukaemia presented 3 months after bone marrow transplantation with a history of febrile episodes over a period of 1 week which proved negative to blood culture. Trans-thoracic echocardiography showed a mass measuring 2.4 by 1.8 centimetres attached to the atrial surface of the mitral valve, with free mitral regurgitation but no significant obstruction. As these views were limited, we proceeded to perform a trans-oesophageal echocardiogram. This showed a ball-like mass with an irregular surface attached to the mural leaflet of the mitral valve by a thin pedicle (Fig. 1a,b). The patient was commenced empirically on antifungal treatment, and was later found to be positive to *Aspergillus* antigens. Within a day of presentation, he developed left-sided ptosis, and computed tomography of the brain showed tiny foci of parenchymal haemorrhage, suggesting a vasculitic or embolic aetiology. In view of the worsening neurological picture, we proceeded to surgery despite the known high operative risk.¹ Through a trans-septal approach, the vegetation was found to be attached to the mural leaflet of the mitral valve, with surrounding areas of infection (Fig. 2a–c). As it was not possible to salvage the mitral valve, it was excised and replaced with a CarboMedics prosthesis of 25 millimetres dimension. Two days after surgery, the patient was noted to have right-sided weakness,

which deteriorated acutely as the result of a massive intracerebral bleed from a small mycotic aneurysm. Due to the poor prognosis, and complying with the wishes of the parents, care was withdrawn soon

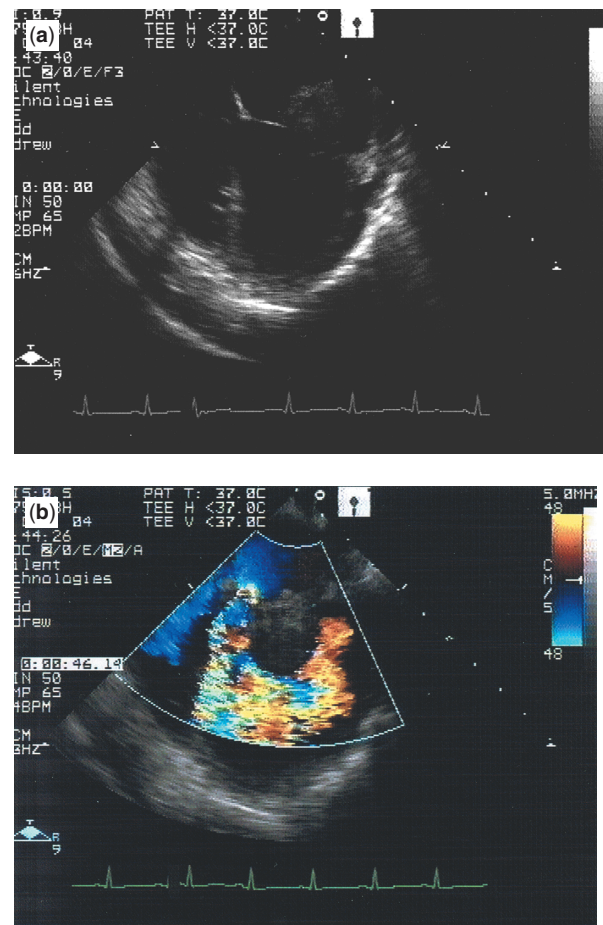


Figure 1.
Trans-oesophageal echocardiogram.

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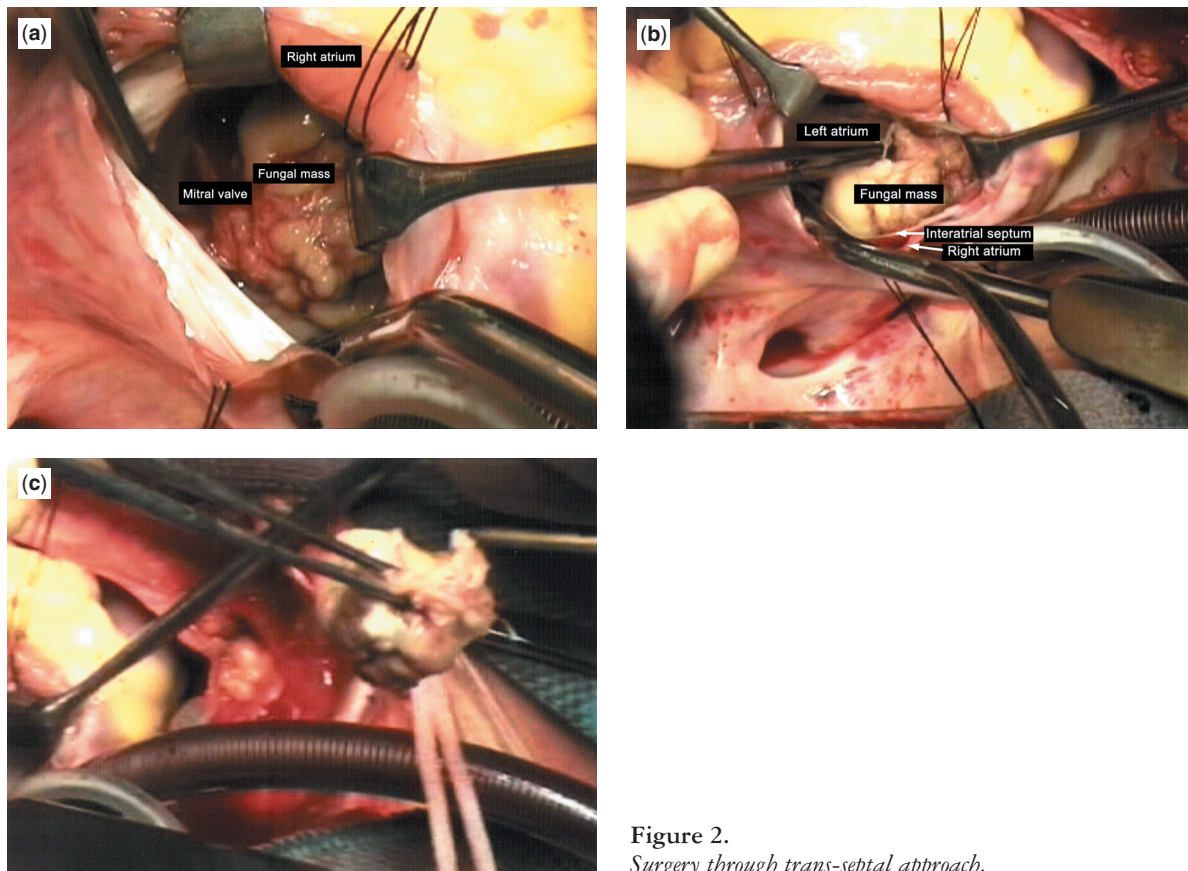


Figure 2.
Surgery through trans-septal approach.

afterwards and the patient died. Our scans demonstrate the exquisite clarity of modern-day echocardiography, and show how they are closely related to the intra-operative findings.

Reference

1. Pierrotti LC, Baddour LM. Fungal endocarditis, 1995–2000. *Chest* 2002; 122: 302–310.