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Images in Congenital Cardiac Disease

Kingella-infective endocarditis resulting in a perforated aortic root abscess and fistulous connection between the sinus of Valsalva and the left atrium in a child

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A previously well 2-year-old boy with no known cardiac disease presented with a 5-day history of fever and acute cardiac failure. On physical examination he was found to be tachycardic with wide pulse pressure, collapsing femoral pulses, and an early diastolic murmur. Transthoracic echocardiogram showed acute endocarditis of the aortic valve with severe regurgitation, an aortic root abscess, and mitral regurgitation. Preoperative transoesophageal echocardiogram in the long-axis

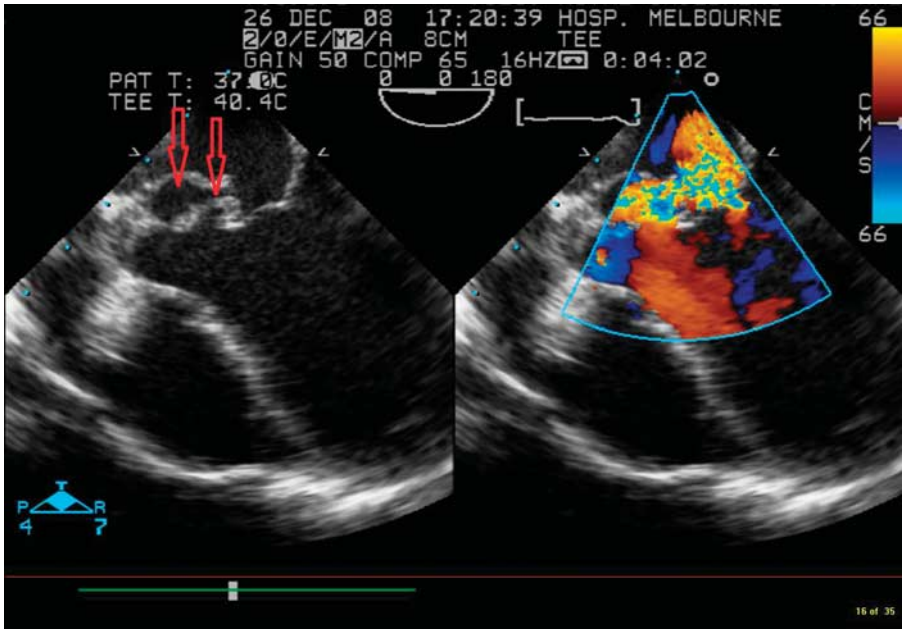

Figure 1.
Pre-operative transoesophageal echocardiogram demonstrating long-axis view of the aortic valve, aortic root abscess, and fistulous connection to the left atrium.

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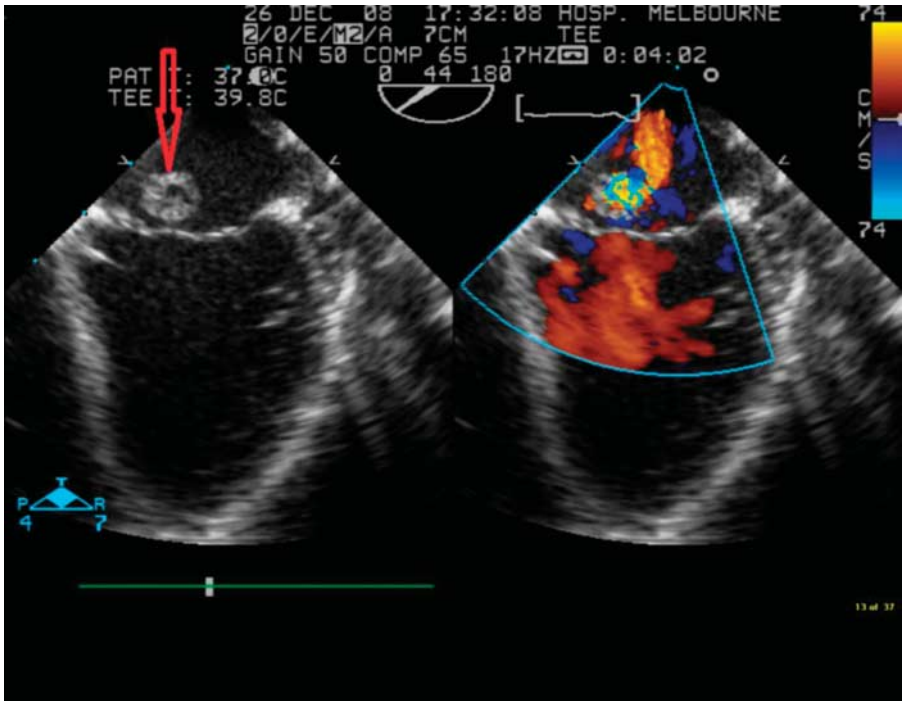

Figure 2.
Pre-operative transoesophageal echocardiogram demonstrating short-axis view of the fistula in the left atrium with flow demonstrated in the fistula.

view (Fig 1), during emergency surgery, showed perforation of the abscess, with a fistulous connection between the left sinus of Valsalva and the roof of the left atrium (arrows) and moderate mitral regurgitation. In the short-axis view (Fig 2), the fistula could be identified in the left atrium, as could flow from the aorta. Surgical findings showed severe destruction of the left and non-coronary cusps, a perforated aortic root abscess with a fistula to the left atrium, and infection of the base of the anterior leaflet of the mitral valve. The patient underwent debridement of the abscess and replacement of the aortic root with a homograft. A pericardial patch was used to close the roof of the left atrium and reconstruct the anterior leaflet of the mitral valve.

Results of blood cultures were positive for *Kingella kingi* after the operation.

At 9-month review after the episode he is home and free of cardiac symptoms.

K. kingi is now recognised as an emerging pathogen in the paediatric population and, as illustrated by this case, may cause severe acute infective endocarditis.[1]

Reference

1. Yagupsky P. Kingella kingae: from medical rarity to an emerging paediatric pathogen. Lancet Infect Dis 2004; 4: 358–367.

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