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## Clinical vignette

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### Giant periprosthetic vegetation associated with pseudoaneurysmal-like rupture

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#### Case presentation

A 75-year-old man with a history of a mitral valve replacement in 1992 (Medtronic Hall valve, Medtronic Inc., Minneapolis, MN, USA) presented with a 6-week history of fever and dyspnoea. An echocardiogram revealed severe periprosthetic mitral regurgitation; no prosthetic valve vegetation was identified and the valve functioned normally. The INR level was therapeutic. Blood cultures were drawn, and empiric antibiotic therapy was initiated. The patient was referred for urgent mitral valve replacement. An ATS Standard Mitral valve (ATS Medical Inc., Minneapolis, MN, USA) tilting disk prosthesis was implanted. The blood cultures from admission returned positive for *Streptococcus sanguis*, and targeted antibiotic therapy was started. The patient had a complicated post-operative course; on post-operative day 30, he developed a fever. A TEE was obtained (Panels A-D) and revealed a giant ( $3.0 \times 3.4 \text{ cm}^2$ ) periprosthetic vegetation, with fistula formation and a contained vegetation rupture (pseudoaneurysm-like). The prosthetic valve was confirmed to be functioning normally. The blood cultures drawn at the time of the fever were positive for *Enterococcus faecalis* and *Staphylococcus epidermidis*.

The patient died on post-operative day 35 of multi-system organ failure.

**Panel:** Trans-oesophageal echocardiogram.

Panel A. Image of the mitral valve prosthesis demonstrating the large periprosthetic vegetation with fistula tract (arrow head).

Panel B. Identical image as Panel A now with colour flow Doppler confirming regurgitant flow (\*) through the ruptured vegetation into the left atrium.

Panel C. Image demonstrating the periprosthetic vegetation with associated pseudoaneurysmal-like rupture (arrow).

Panel D. High magnification image of the pseudoaneurysmal-like rupture with and without colour flow confirming communication with the vegetation.

