

Tricuspid Valve Infective Endocarditis Requiring Tricuspid Valve Replacement Three Times Within 16 Months

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Background

- Tricuspid valve infective endocarditis (TVIE) is most commonly associated with intravenous drug use (IVDU), which on failing medical management, is treated surgically. Tricuspid valve replacement (TVR) is the preferred treatment if there are recurrent episodes of TVIE in patients with prosthetic tricuspid valves. To the best of the authors' knowledge, this is the first case where TVR was performed three times in an IV drug user within a short span of 16 months.

Discussion

A 46-year-old man presented with recurrent episodes of infective endocarditis (IE), and had undergone TVR twice previously. He had a long history of IVDU; however, he reported abstinence. We hypothesized that resistant and recurrent fungemia, in addition to bacteremia were the main reasons behind his predisposition to TVIE. He was treated with intravenous antibiotics following which he was switched to oral suppressive therapy. However, despite adequate medical management with Vancomycin and Micafungin for over one year, a transesophageal echocardiogram (TEE) showed the presence of a highly mobile vegetation measuring 2.1 centimetres x 1.5 centimetres on the TV prosthesis. He was then operated on for the third time for TV replacement within a span of 16 months from his first episode of IE. His condition remained stable after being discharged and he was referred for cardiac rehabilitation program. He was also set up for regular follow-ups with the cardiologist and infectious disease specialists.

Discussion

According to the 2015 European Society of Cardiology (ESC) guidelines, TVR surgery in right sided endocarditis (RSE) is recommended if the IE is caused by micro-organisms that are difficult to eradicate (e.g. fungi) or if bacteremia persists beyond 7 days despite adequate antimicrobial therapy. or in persistent TV vegetations larger than 20 mm. We have highlighted that multiple replacements of the TV for TVIE can be safely undertaken without complications, provided there are strong indications for the same. We have also demonstrated the persistence of fungemia and bacteremia despite prolonged antimicrobial therapy and abstinence from IVDU.

Images

