

## A Complicated Mitral Prosthesis Endocarditis: An Inevitable Outcome?

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A 79-year-old female patient with a history of breast cancer, submitted to right mastectomy, chemotherapy and radiotherapy in 2005; with hypertension, obesity, chronic kidney disease and paroxysmal atrial fibrillation. In 2012, she was admitted for mitral valve endocarditis due to beta-hemolytic *Streptococcus* complicated by cerebral embolization and acute heart failure associated with severe mitral regurgitation. In this setting, she underwent emergent surgery, with implantation of a biological prosthesis in the mitral position, complicated by prosthesis dehiscence and the need for a new valve replacement surgery one month later. At discharge, a transthoracic echocardiography (TTE) was performed, which documented a normofunctioning prosthesis without residual leaks. She was readmitted in 2017 due to prosthetic valve endocarditis with negative blood cultures, and evidence of vegetation on the initial transesophageal echocardiography (TEE), pseudoaneurysm (maximum dimensions 3.19 × 1.58 cm) and periprosthetic

leak, not present in a TTE performed two months before. She was refused for surgery due to high surgical risk and percutaneous closure was not technically feasible. The patient was readmitted after 3 months due to acute heart failure with documented dehiscence of the prosthesis with rocking movement and severe periprosthetic leak. After Heart Team discussion, the patient underwent emergent surgery. The prosthesis cultures revealed *Brevibacterium* sp. and *Staphylococcus epidermidis*, and targeted antibiotic therapy was initiated. Despite favourable evolution, on the 19th day of hospitalization, she suffered sudden death and the cause of death was unknown.

### Authors' contributions

Data acquisition: Alegria S, Marques A, Cruz IR, Junqueira N, Simões O; Manuscript writing: Alegria S; Critical revision of the manuscript as for important intellectual content: Alegria S, Simões O.

### Keywords

Mitral Valve/surgery; Heart Valve Prosthesis Implantation/methods; Endocarditis.

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### Potential Conflicts of Interest

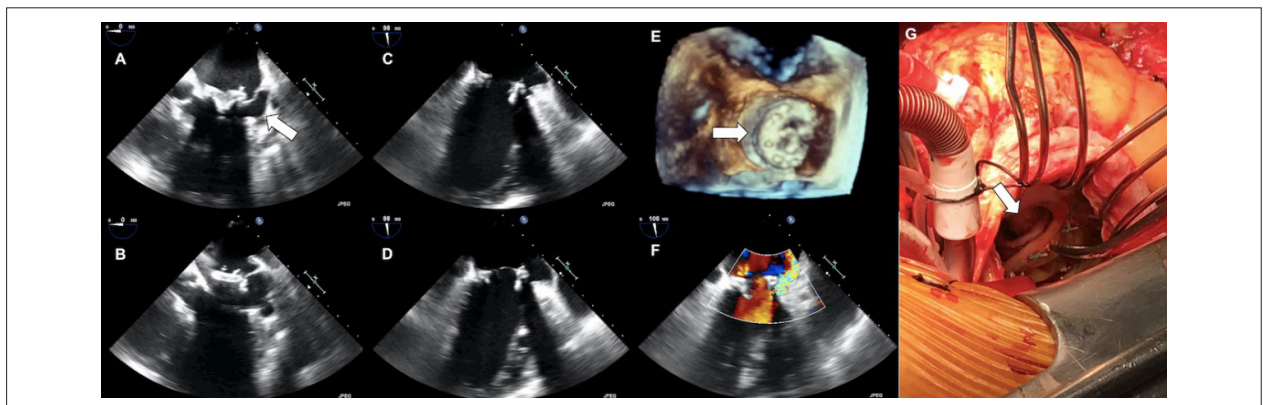
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### Academic Association

This study is not associated with any graduate programs.



**Figure 1** – A and B: Transesophageal echocardiography showing mitral biological prosthesis with dehiscence and pseudoaneurysm in the lateral aspect (arrow in Figure 1A). C and D: Severe dehiscence of the mitral prosthesis with rocking movement (Figure 1C in diastole and Figure 1D in systole). E: Three-dimensional transesophageal echocardiography showing dehiscence of the mitral bioprosthesis occupying about 50% of the circumference, more evident in the area corresponding to the anterior mitral annulus (arrow). F: Severe periprosthetic leak. G: Intraoperative image revealing dehiscence of the mitral prosthesis (arrow).