CASE IMAGE

Twenty-seven-year durability of St. Jude Medical Biocor bovine bioprosthesis in mitral position

St. Jude medikal mitral sığır biyoprotez kapağın 27 yıllık dayanıklılığı

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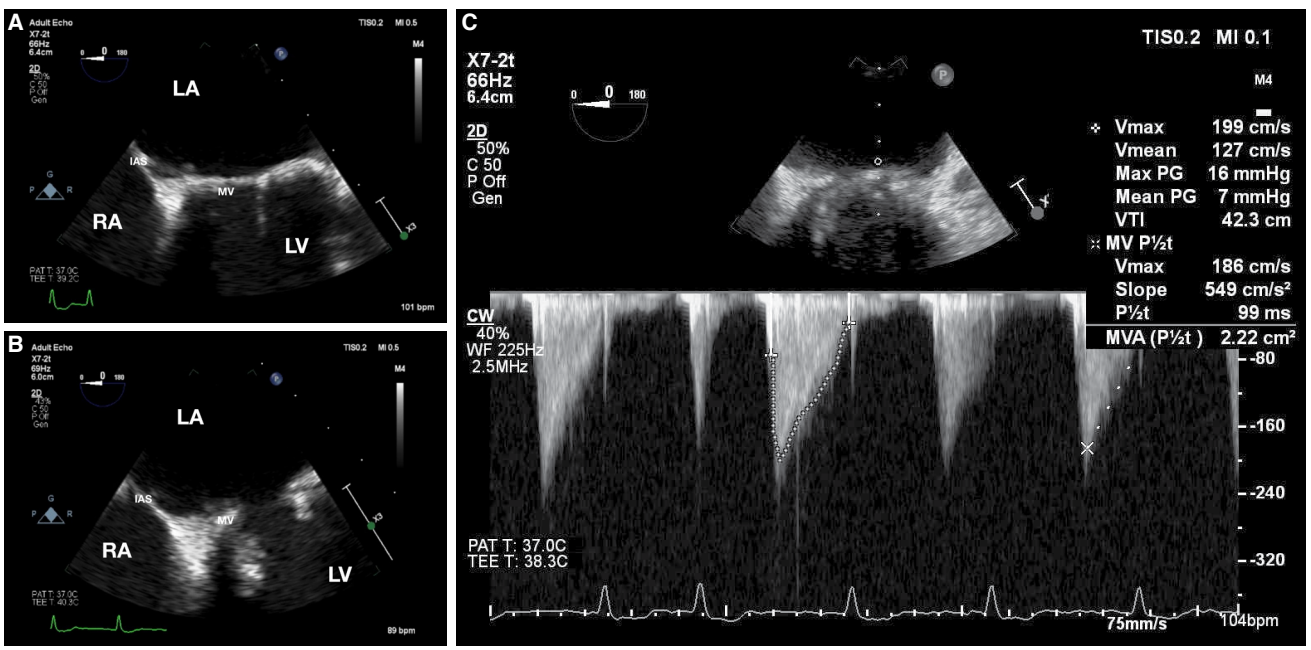
A 67-year-old female patient had undergone mitral valve replacement 27 years earlier with a 29-mm St. Jude Medical Biocor bovine bioprosthesis valve (St. Jude Medical Inc., St. Paul, MN, USA) due to mitral stenosis. She was admitted to the outpatient clinic with dyspnea. There were no specific findings during the chest auscultation. Electrocardiography demonstrated a normal sinus rhythm with a heart rate of 70 beats per minute with an axis of 59°. A chest X-ray demonstrated biatrial enlargement. Bedside transthoracic echocardiography revealed biatrial dilatation, mild pulmonary insufficiency, moderate tricuspid regurgitation, and normal mitral bioprosthetic valve gradients with slight calcification of the valve (Video 1* and 2*). Transesophageal echocardiography confirmed that the patient had normal mitral valve function that was consistent with the manufacturer's reference values (Video 3*, Fig. A, B). The peak gradient was 16 mmHg, the mean gradient was 7 mmHg, and the mitral valve area pressure half time measurement was 2.2 cm^2 (Fig. C, Video 4*). Bioprosthetic valves are prone to earlier calcification in patients less than 65 years of age, which may lead to reoperation due to limited durability. However, the tendency toward the use of bioprosthetic valves in mitral valve replacement has significantly increased. According to the Society of Thoracic Surgeons database, use of a mechanical valve decreased from 68% in 2000 to 37% in 2007. The primary reason is the lower rate of structural valve deterioration in current bioprosthesis models. Bioprosthetic valve durability remains unclear; however, valve-in-valve transcatheter mitral valve implantation will play an essential role in the future. This case illustrates results with one of the most durable mitral bioprosthetic valves ever reported in the literature. The patient currently continues uneventful follow-up and medical treatment.



Figures– (A, B) Transesophageal echocardiography results. LA: Left atrium; LV: Left ventricle; RA: Right atrium. **(B)** Transesophageal echocardiography results.