

SIMULTANEOUS BILATERAL INFECTIVE ENDOCARDITIS WITH RIGHT VENTRICULAR MURAL INVOLVEMENT

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A 47-year-old woman without a significant medical history, including no history of intravenous drug abuse, no body piercings, and no tattoos, was referred with a 6-day history of high fever and arthralgia. Blood cultures were all positive for *Staphylococcus aureus* Meti-S. Transthoracic echocardiography revealed: 1) an irregular thickening of the posterior mitral valve root with mobile extensions projecting toward both the left ventricle and the left atrium (Fig. 1A, Supplementary movie 1); 2) a huge mobile vegetation rising from the upper portion of the right side of the interventricular septum (Fig. 1B, Supplementary movie 2). These findings were confirmed by transesophageal echocardiography (Fig. 1C-G, Supplementary movie 3 and 4), which also disclosed a mild-to-moderate mitral regurgitation (Fig. 1H). A diagnosis of multisite infective endocarditis with right sided mural involvement was made. No point of entry was detected. The patient got quickly worse and was referred for emergency cardiac surgery.¹⁾ Intraoperative findings confirmed the presence of a bulky 3 cm-long vegetation attached to the right-sided interventricular septal endocardial surface that reached the pulmonary valve orifice (Fig. 1I, Supplementary movie 5). On the left side of the heart, the surgeon noted the presence of a large vegetation extending to the posterior free wall endocardium that was damaging the root of the mitral posterior leaflet, and destroying several chordae tendineae and the top of the posterior papillary muscle. The surgical procedure consisted of a conservative posterior mitral valve repair and, on the right side, of a single septal resection. The patient was discharged home 38 days

after surgery, in stable clinical condition.

SUPPLEMENTARY MOVIE LEGENDS

Movie 1. Real-time two-dimensional transthoracic echocardiography (parasternal long-axis view) showing an irregularly shaped vegetation rising from the root of the posterior mitral valve leaflet, and a mobile vegetation attached to the right side of the interventricular septum.

Movie 2. Real-time three-dimensional transthoracic echocardiography (parasternal long-axis view) showing the same left and right-sided endocarditic lesions as in Movie 1.

Movie 3. Real-time two-dimensional transesophageal echocardiography from a mid-esophageal right ventricular outflow view (transducer angle 77°) showing a large mural vegetation rising from the right side of the interventricular septum and projecting toward the pulmonary valve.

Movie 4. The same right-sided interventricular septal vegetation as in Movie 3, displayed by real-time two-dimensional transesophageal echocardiography from a mid-esophageal right chambers view, transducer angle 0°.

Movie 5. Intraoperative surgeon's view (right infundibulotomy ventricular free wall approach) of the vegetation attached to the right side of the interventricular septum.

REFERENCE

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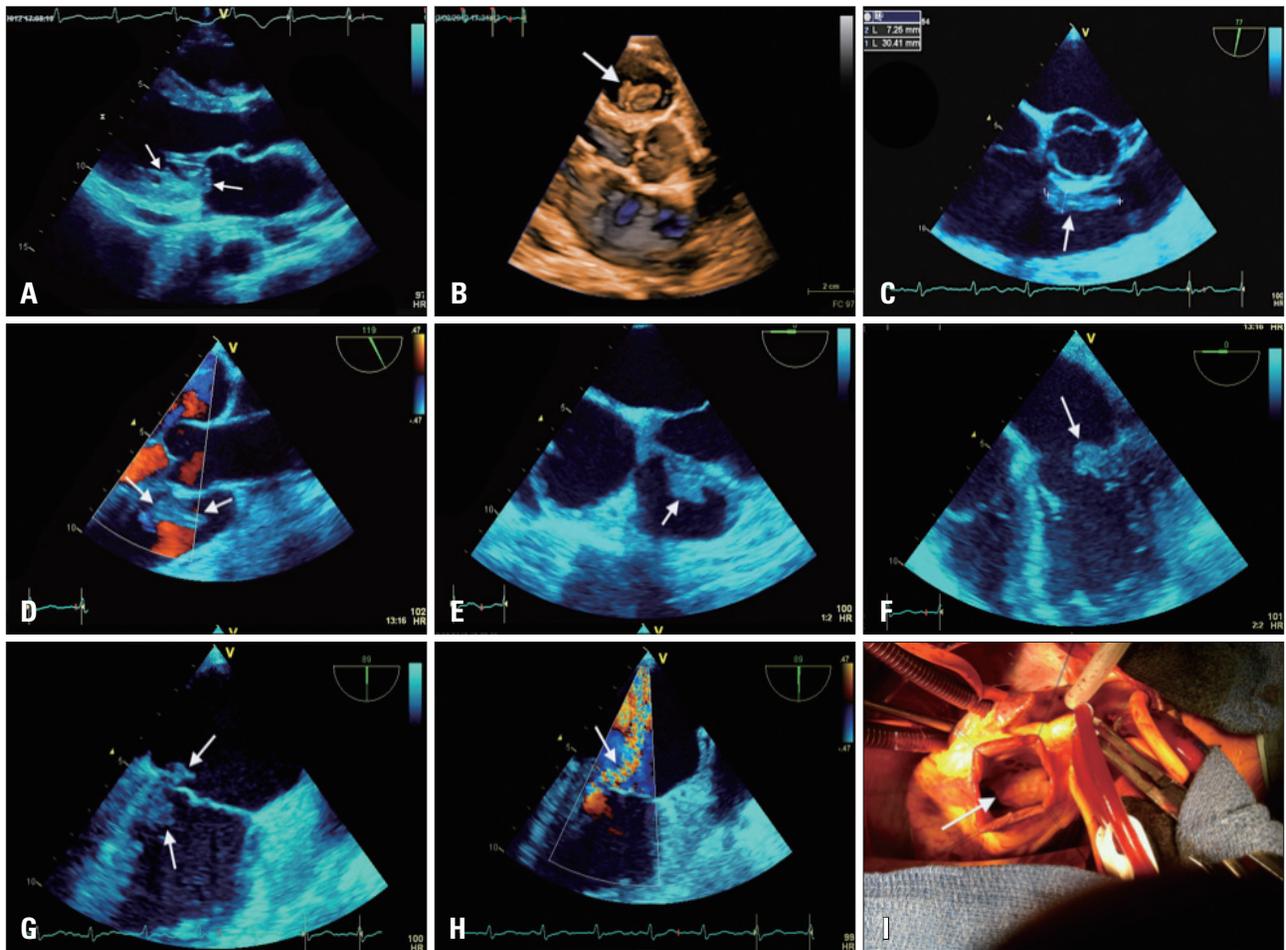


Fig. 1. Transthoracic (two-dimensional and three-dimensional) and two-dimensional transesophageal echocardiography display of the endocarditic lesions, and surgical view of the right-sided vegetation. A: Two-dimensional transthoracic echocardiography (parasternal long-axis view) showing an irregularly shaped vegetation rising from the root of the posterior mitral valve leaflet (arrows). B: Real-time three-dimensional transthoracic echocardiography (parasternal long-axis view) showing a huge vegetation attached to upper portion of the right side of the interventricular septum. The same vegetation displayed by two-dimensional transesophageal echocardiography (C: mid-esophageal right ventricular outflow view, transducer angle 77°; D: mid-esophageal long-axis right ventricular outflow view, transducer angle 119°; E: mid-esophageal right chambers view, transducer angle 0°). F and G: The left heart vegetative lesion displayed by two-dimensional transesophageal echocardiography (F: mid-esophageal four-chamber view, transducer angle 0°; G: mid-esophageal two-chamber, transducer angle 89°). H: Transesophageal two-dimensional color Doppler flow recording of the mitral regurgitation (mid-esophageal two-chamber, transducer angle 89°). I: Intraoperative surgeon's view (right infundibulotomy approach) of the vegetation attached to the right side of the interventricular septum.