

The Simple Is Safe: Leadless Pacing in a Patient After Circulus Vitiosus of Complications and Multiple Cardiac Surgical Interventions

The article describes a 46-year-old patient with cardiogenic shock in the course of cardiac tamponade and acute renal failure. Complications arose due to the effects of the Bentall procedure. During admission, the patient suffered mediastinitis caused by methicillin-susceptible *Staphylococcus aureus*. Cardiac tamponade relapses led to another 2 surgeries. Post-operative chest computed tomography (CT) revealed past ascending aorta dissection and uncalcified atherosclerotic lesions with ulceration in the distal part of the aortic arc. Another sternotomy was performed, with the pseudoaneurysm opened to reveal an almost entirely detached graft with a biological valve. The graft was reattached. Control CT of the aorta demonstrated a non-optimal effect of surgical treatment, with another pseudoaneurysm formation. The patient was qualified for

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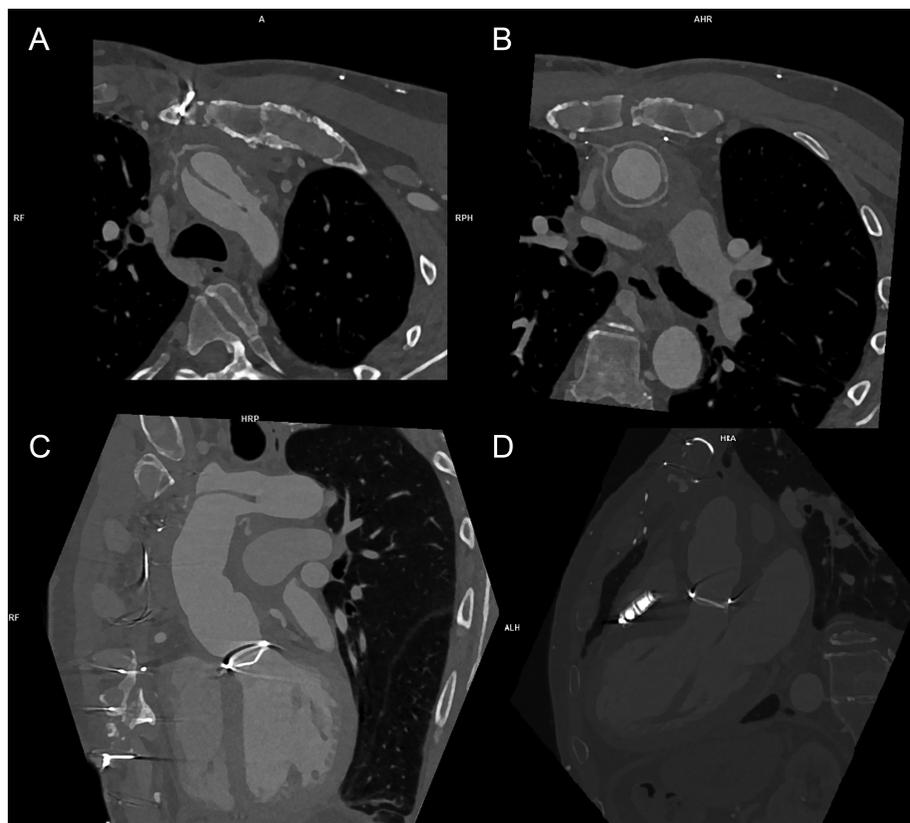


Figure 1. Condition after treatment of ascending aortic dissection type A. (A, C) Condition after aortic valve and ascending aorta replacement (Bentall procedure). (B, D) Behind the distal end of the prosthesis, there is a dissection in the arch extending to the level of the left subclavian artery. Micra TPS wireless pacemaker is located in the area of the interventricular septum, in the right ventricle of the heart (D).

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an expedited reoperation procedure (re-Bentall). After the operation, electrocardiogram (ECG) examinations revealed a third-degree heart block (AVB III). Due to low left ventricular ejection fraction and AVB III, implantation of cardiac resynchronization therapy was considered. Finally, the patient was qualified for the direct safety of the leadless pacemaker (LP) Micra™ AV (Figures 1A-D). After 1 year of struggle, as described before, the patient in good condition was discharged from the hospital.

Pacemaker dependence after Bentall surgery is a crucial factor influencing the patient's short-term and long-term prognosis.¹ In this group of patients, implanting a classic transvenous pacemaker is associated with a higher risk of cardiovascular implanted electronic device-related infection and may be difficult due to the presence of fibrosis, adhesions, and vascular occlusions. Additionally, the clinical and cost effectiveness of leadless pacing in such cases is worth considering as a valuable method.²

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