





## Complete heart block as a manifestation of combined mitral valve and aortic root infective endocarditis

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**Introduction:** Complete heart block is an uncommon but serious complication of infective endocarditis occurring due to paravalvular extension of infection, including the cardiac conduction system<sup>1,2</sup>. Cardiac implantable electronic device (CIED) infections represent one of the most serious complications of device-therapy<sup>3</sup>. Therefore, management of patients with infective endocarditis and complete heart block poses serious challenge for clinicians.

**Case report:** 74-years-old male patient with a history of coronary artery disease who had previously undergone coronary artery bypass surgery and mechanical aortic valve replacement, was admitted due to symptomatic intermittent complete heart block and pneumonia. Transthoracic echocardiography showed normal systolic heart function, preserved function of the aortic mechanical valve, but also revealed a floating formation on the atrial side of anterior mitral leaflet suspected of vegetation, without functional impairment of the mitral valve. The latter was confirmed by transesophageal echocardiography with maximal length of vegetation measuring 16 mm. Since the clinical suspicion of infective endocarditis (IE) was high, regardless of repeated negative blood cultures, antibiotic treatment with ampicillin and gentamycin was administered, resulting in adequate reduction of inflammatory markers. Multiple suspected embolic infarctions of the kidneys and spleen were revealed on a multi-slice CT scan. FDG-PET/CT supported the diagnosis of IE by detecting pathological FDG accumulation on the anterior mitral leaflet, but also in the aortic root. After normalization of inflammatory markers, there was no significant bradyarrhythmia registered. Due to high risk of embolization, the patient was referred for urgent extensive cardiac surgery. Epicardial pacing was considered as a potential option if heart block persisted despite infection resolution.

**Conclusion:** Infective endocarditis can cause complete heart block, and despite its potential reversibility, may present a therapeutical challenge if pacing is eventually indicated. In such cases, epicardial pacing should be preferred over usual transvenous pacing to minimize the risk of CIED infections<sup>2,3</sup>.

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### LITERATURE

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