221. AORTIC VALVE ENDOCARDITIS COMPLICATED BY SINUS OF VALSALVA PSEUDOANEURYSM: HYBRID SURGICAL MANAGEMENT

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Introduction. Infective endocarditis (IE) affecting the aortic valve is a life-threatening condition that can rapidly lead to acute aortic regurgitation and extensive cardiac complications. One of the rarer consequences of aortic valve IE is the formation of a sinus of Valsalva pseudoaneurysm, which presents significant challenges for surgical management. Optimal treatment typically requires a combination of valve replacement and reconstructive procedures to restore normal valve function and ensure hemodynamic stability.

Case statement. A 66-year-old male with a history of gout presented in July 2024 with persistent chest pain, fever up to 39°C, accompanied by mild temporo-spatial disorientation. Neurological evaluation excluded acute ischemic lesions. Initial treatment with intravenous Ceftriaxone 1 g twice daily led to fever resolution. Pleural ultrasound revealed bilateral pleural effusion (1600 ml right, 1000 ml left), and pulmonary Angio-CT showed multiple peribronchovascular infiltrates. The patient was referred to the Institute of Cardiology, where transthoracic echocardiography revealed floating aortic vegetations up to 15 mm and possible cusp perforation. Severe aortic insufficiency (grade III–IV), marked left and right ventricular dilation, mitral regurgitation grade III, tricuspid regurgitation grade II–III, severe pulmonary hypertension, and a sinus of Valsalva pseudoaneurysm were also observed. On August 9, 2024, the patient underwent complex surgery: aortic valve replacement with a mechanical "Carbomedics Standard" N27 prosthesis, repair of the aortic annulus under the left coronary artery using a bovine pericardial patch, mitral annuloplasty with MDT "Profile 3D" N32 ring, and tricuspid annuloplasty (DeVega-Cabrol modification, Manuil-Antunis). Postoperatively, the patient experienced mild cognitive disturbances with gradual improvement and two short paroxysms of atrial flutter, restored medically. Subsequently, he underwent a two-week cardiac rehabilitation program and was discharged home in satisfactory condition.

Discussions. Sinus of Valsalva pseudoaneurysm is an uncommon but serious complication of aortic valve IE, requiring a multi-step surgical approach. The intervention performed preserved valvular competence and hemodynamic stability while minimizing embolic risk, emphasizing the importance of comprehensive imaging and multidisciplinary management.

Conclusions. Complex surgical management combining valve replacement and repair is essential in aortic valve endocarditis complicated by sinus of Valsalva pseudoaneurysm. Early assessment, meticulous surgical planning, and careful postoperative monitoring contribute to favorable outcomes and optimal functional recovery.

Keywords. infective endocarditis, sinus of Valsalva pseudoaneurysm.

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