

Reoperation for ascending aorta aneurysm after double valve replacement in a Takayasu's Aortitis: A case report

Jie He

Southern Medical University, China

Statement of the Problem: Takayasu's aortitis (TA) is a chronic systemic vasculitis of unknown origin. It often involves the aorta, its major branches and the aortic valve. Surgical treatment such as valve replacement is occasionally required when cardiovascular symptoms occur. The most serious complications after valve replacement in TA are prosthetic valve detachment and aortic root aneurysm. The purpose of this study is to describe a complicated surgical case of reoperation presented with all of these complications.

Methodology & Theoretical Orientation: This study is based on a reoperation case of TA patient with previous double replacement, mainly focusing on the surgical technique and our experience during the treatment process.

Findings: A 29-year old male with TA was admitted due to tachypnea and exertional palpitations, three years after his previous double valve replacement (DVR). Transesophageal echocardiography showed severe detachment of the aortic valve and fistula from the aortic root to both the left ventricle and the left atrium. Computed tomography showed aneurysmal dilation of the aortic root to a diameter of 64 mm.

Conclusion & Significance: We successfully treated a case of aortic aneurysm combined with aortic valve detachment and aortic fistula after previous DVR in TA patient. The teaching points of this case were: The two key procedures in this operation, i.e. reconstruction of the central fibrous body and the shunt of aortic root-right atrial; due to the fragility of the tissue in TA patients, the surgical operation must be meticulous to ensure as little tension on the suture line as possible; for DVR operations in TA patients, proactively fixing the aortic valve to the mitral valve is recommended; and imaging follow-up should be done routinely. Even in such a challenging and complex case, surgery is still feasible and the preferable option.

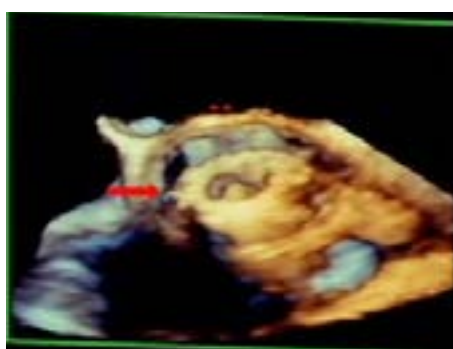


Figure 1 : Transesophageal echocardiography indicted loose aortic valve (arrow) movement and aortic annulus.

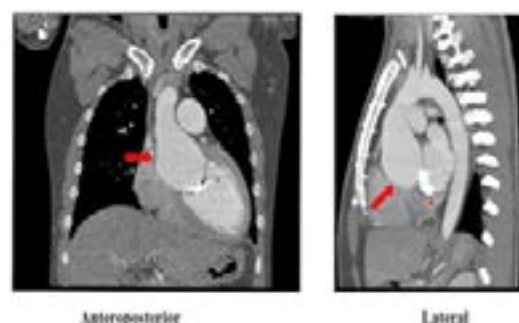


Figure 2 : CT scan showed enlarged aortic root (arrow) and sign of avulsion of the aortic valve.

Biography

Dr. Jie He graduated from Southern Medical University in China in 2016 and joined Prof. Fan's team as a surgical resident at Guangdong Cardiovascular Institute in 2016. His main research field is aortic disease. Since then, he has published several articles on cardiovascular surgery and shared our team's experience on different conferences.