Giant pseudoaneurysm of the ascending aorta after double-valve replacement

Siyuan Yang*, Eryong Zhangb, Li Dongb and Yingkang Shi

a Department of Cardiac Surgery, The Affiliated Hospital of Guiyang Medical College, Guiyang, China
b Department of Cardiothoracic Surgery, West China Hospital, Sichuan University, Chengdu, China

* Corresponding author. Department of Cardiac Surgery, The Affiliated Hospital of Guiyang Medical College, No. 28, Guiyi Road, Guiyang 550004, PR China. Tel: +86-851-6773651; fax: +86-851-6773651; e-mail: yangsiyuangymc@yahoo.cn (S. Yang).

Keywords: Aneurysm • False aneurysm • Cardiac surgery • Ascending aorta

A 47-year old man presented with a large chest swelling 10 months following aortic and mitral valve replacement. Computed tomography revealed a huge ascending aortic pseudoaneurysm (Fig. 1A and B). After establishing hypothermic circulatory arrest through an axillary-femoral bypass, a median sternotomy was performed. The defects were directly closed using two interrupted, pledgeted 4-0 Prolene sutures (Fig. 2A and B).

Figure 1: (A) A 13 × 16-cm mass formed over the upper left chest wall 10 months after mitral and aortic valve replacement, which was painful, pulsatile and swelling. (B) Contrast thoracic computed tomography revealed a 12.6 × 7.5 × 7.3-cm retrosternal pseudoaneurysm, which originated from the ascending aorta and eroded the sternum, ribs and subcutaneous tissue, forming a giant mass anterior to the sternum.

Figure 2: (A) Intraoperative photograph showing a huge cavity anterior to the sternum, which was filled with 200 g of clots; once the clots were removed, laminar ribs and sternum were revealed. (B) Two 0.5-cm-diameter defects ~1.5 cm above the aortic orifice were found on the right anterior surface of the aorta after evacuating all clots, coinciding with the previous aortotomy site (arrow).