

A SURGICAL GAUZE PRESENTING AS A THROMBUS IN RIGHT ATRIUM FOLLOWING AORTIC VALVE REPLACEMENT

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Here, we describe a patient with a surgical gauze presenting as a thrombus in right atrium following aortic valve replacement.

A 53-year-old male patient who underwent an aortic valve replacement 10 months previously, presented with exertional and nocturnal dyspnea, fatigue and palpitation. Echocardiography was performed and showed a giant mass in the right atrium. The mass was reported as a thrombus. A surgical gauze was removed from the extracardiac mass during the operation.

Key Words: Gauze, thrombus, aortic valve replacement, right atrium

A surgical gauze is a rare cause of infection after cardiac surgery. A review of the literature reveals only a few reports of surgical gauze appearing in patients following open heart surgery (1,2).

CASE

A 53 year old male underwent aortic valve replacement 10 months ago. He had suffered from rheumatic fever as a child. Aortic valve replacement was carried out via a median sternotomy using a 25 mm Sorin bileaflet mechanical valve.

Follow-up visits to the cardiology clinic found him to be making good progress.

Ten months postoperatively, however, he started to experience exertional and nocturnal dyspnea, fatigue and palpitation. Arterial pressure was found to be 140/70 mmHg with a normal heart rate. Laboratory tests such as complete blood counts, creatinine, blood glucose, electrolytes and erythrocyte sedimentation rate were found to be normal.

The PTT and INR levels were 22.6 seconds and 2.19 respectively because of receiving of Warfarine after mechanic valve replacement operation. Enlargement of the right atrial region was detected on chest X-ray (Figure 1).



Fig1: Anteroposterior chest roentgenogram showing of dilatation of right atrial region

Mechanical valve sounds were heard on the aortic region. There weren't any pathological signs on the clinical examination.

The echocardiography was performed and showed a normal function of the mechanic aortic valve but a giant mass in the right atrium. The mass was reported as a thrombus.

He was operated with the diagnosis of a giant mass in the right atrium.

Resternotomy was performed under general anesthesia. Bicaval and aortic cannulation were performed after the massive adhesions were dissected. A giant mass was detected between VCI and right atrium with a diameter of 7 cm. The dissection was made by using continuous cardiopulmonary bypass at 28 C and antegrade crystalloid cardioplegia. Pus was drained from the mass during blade dissection. Cultures was applied from the region before washed by saline and iodine. A surgical gauze was removed from the mass (Figure 2). The right atrium was examined by the right atriotomy but no thrombus was found in the right atrium. After rewarming and uncomplicated weaning from cardiopulmonary bypass, the operation was terminated in routine technique.

The postoperative period was not complicated and, the patient was extubated on the 6th postoperative hour and discharged from hospital on the 7th day without symptoms. Intravenous antibiotic therapy was stopped after the cultures obtained were negative. Figure 2.



Fig 2: Operativeview of during remove a surgical gauze

DISCUSSION

Right atrial thrombosis is an unusual condition. Diagnosis of thrombus in the right atrium can be established by two-dimensional echocardiography (3). The clinical presentations are: pulmonary embolism, myocardial infarction, Ebstein anomaly and thrombosis of a catheter (3). Thrombus can be described as mobile or immobile at the echocardiographical appearance. Surgical intervention is recommended for right atrial thrombus because of the risk of pulmonary embolism. However, a case reported that left atrial thrombus in a 10-month-old boy with successful thrombolysis by recombinant tissue-type plasminogen activator after open heart surgery (4).

An extrinsic hematoma may cause compression of the right atrium after open heart surgery (5). Acute and severe hemodynamic deterioration may develop in patients in this clinical situation. Conventional transthoracic echocardiography (TTE) is technically suboptimal for the detection of pericardial effusion. Transesophageal echocardiography (TEE) is better than TTE in evaluating critically ill patients with the diagnosis of right atrium with a localized mass (6). We did not suspect any

a localized mass (6). We did not suspect any extracardiac mass.

Cardiac tumours are another cause of right atrial masses. We did not suspect any cardiac tumour because the mass developed rapidly.

The occurrence of surgical gauze swabs in pericardium following cardiac operations is rare. However, the actual incidence is difficult to estimate. This accident seems to be occurring most frequently in general surgery (7). There have been only a few papers in the literature dealing with the topic of foreign bodies in pericardium after open heart surgery (1,2).

We concluded that, gauze counting must be performed carefully after each operation. However, TEE must be performed after the mass in right atrium is detected by TTE.

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