

***Klebsiella pneumoniae* Pseudoaneurysm of the Ascending Aorta after Coronary Artery Bypass Graft**

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Abstract- Mycotic pseudoaneurysm of the ascending aorta is rare in patients undergoing coronary artery bypass graft (CABG) and usually caused by staphylococcus aureus. We describe a patient with a mycotic pseudoaneurysm of the ascending aorta at the proximal vein graft anastomosis site after CABG. Culture from the sinus tract of the sternum and from the aneurysm sac was *Klebsiella pneumoniae*. Surgical technique was patch repair of aorta under hypothermic circulatory arrest. He is asymptomatic at 24 months follow-up.

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Introduction

Osler first coined the term "mycotic aneurysm" in 1885 to describe a mushroom-shaped aneurysm in a patient with endocarditis (1). Mycotic pseudoaneurysms of the ascending aorta are complications after cardiac surgery and are caused by growth of bacteria or fungi in the vessel wall.

Such aneurysms are more likely to occur in immunosuppressed patients after heart or heart-lung transplantation than after coronary artery bypass grafting (CABG). Whereas *Candida* species and gram-negative bacteria more common after heart or heart-lung transplantation, *Staphylococcus aureus* is the organism most frequently found after CABG (2,3). Rarely has *klebsiella pneumoniae* been reported in an ascending aorta mycotic pseudoaneurysm (4). We describe the case of the ascending aorta, which developed at the proximal vein graft anastomosis site after CABG surgery, was attributable to growth of *klebsiella pneumoniae*.

Case Report

A 56-year-old man underwent CABG with Left Internal Mammary Artery (LIMA) to Left Anterior Descending (LAD) and Saphenous Vein Graft (SVG) to the Right Coronary Artery (RCA). Early postoperative course was uneventful, and he was discharged from the hospital on the 6th postoperative day. Four weeks later, he had

purulent drainage from the upper portion of the sternal incision. Culture specimens from the sternal wound grew *klebsiella pneumoniae*. He was treated with antibiotic, removing one sternal wire, and dressing changes. The sternal wound was healed completely in approximately one month.

One month later, he developed sudden chest pain and was admitted to CCU and discharged from hospital two days after without specific diagnosis.

Six months later he had recurrent purulent drainage of the sternal wound at the previous site. A chest radiograph showed mediastinal widening (Figure 1).

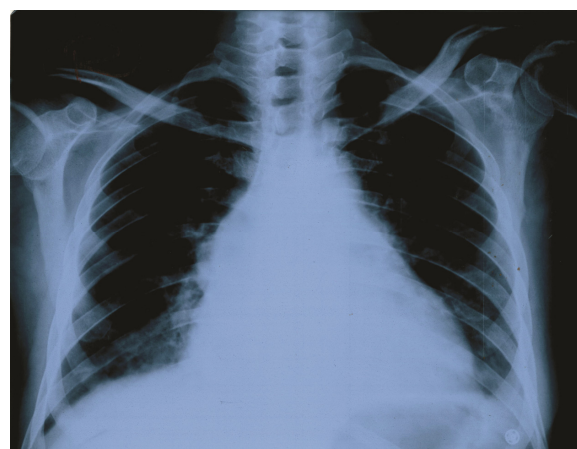


Figure 1. Chest radiograph show mediastinal widening

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Klebsiella pneumoniae pseudoaneurysm of the ascending aorta after CABG

Life long treatment with antibiotics has been recommended for patients who are receiving synthetic graft material to prevent serious, potentially lethal, recurrence of infection (9). In addition, repair with use of autologous, homologous, or xenopericardial material and administration of short-term antibiotics has been suggested as an alternative to the use of synthetic patch material (10).

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