

Successive Stages of Mycotic Aortic Arch Aneurysm Development

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Abstract

An 81-year-old male presented with an abscessed tumor of the cecum and complicated by a mycotic aneurysm of the aortic arch. We present successive stages of mycotic aneurysm development as seen on serial computerized tomography scans.

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Key Words

Aortic aneurysm • Computerized tomography

An 81-year-old male patient with a history of aortic valve replacement presented to our hospital with right iliac fossa pain, chronic constipation, and fever. Hemocultures revealed the presence of anaerobic, Gram-positive bacteria identified as *Clostridium septicum* [1]. An initial thoraco-abdominal computed tomography (CT) scan demonstrated an abscessed tumor of the cecum with enlarged iliac lymph nodes. The aortic arch was moderately calcified but not dilated (Figure 1A).

After 1 day of triple antibiotic therapy (cefotaxim, gentamicin, and metronidazole), a right hemicolectomy with double enterostomy was performed for an occlusive syndrome. Antibiotics were switched

to penicillin plus clavulanic acid as suggested by sensitivity tests.

Two weeks postoperatively, the patient presented with a new septic syndrome, and hemocultures revealed the presence of the same strain of *C. septicum*. A thoraco-abdominal CT scan found no deep abdominal collection, but showed the beginning of dilatation at the distal part of the aortic arch with intra-luminal thrombotic material (Figure 1B).

Fifty days postoperatively, the patient presented with chest pain but no fever. A thoracic CT scan showed a sacciform distal aortic arch aneurysm with intramural air bubbles (Figure 1C and D) suggestive of anaerobic infection [2]. Considering the advanced age of the patient, endovascular temporary exclusion [3] or surgery was declined, and only palliative antibiotics were proposed (penicillin + clavulanic acid in addition to metronidazole). The patient subsequently died of aortic arch rupture.

Conflict of Interest

The authors have no conflicts of interest relevant to this publication.

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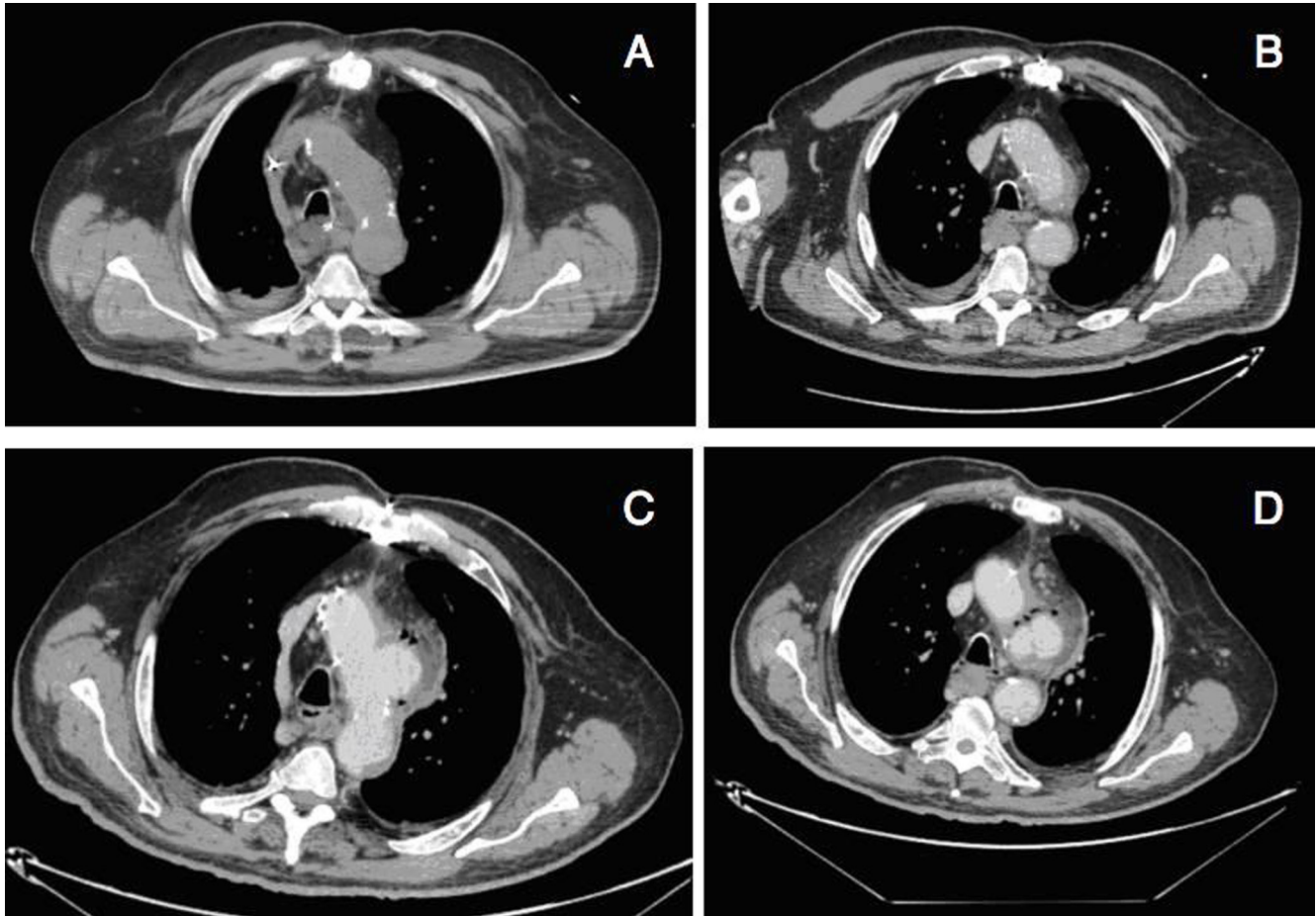


Figure 1. Thoracic computed tomographic scan. Axial images (*Panel A* and *Panel C* same level; *Panel B* and *Panel D* same level). *Panel A.* Day 0, showing a moderately calcified aortic arch. *Panel B.* Day 14, showing the beginning of dilatation of the distal part of the aortic arch with intraluminal hypo-dense material suggestive of thrombus. (*Panel C* and *Panel D*) Day 50, showing a sacciform distal aortic arch aneurysm with air within the aortic wall suggestive of anaerobic infection.

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