Infected aortic aneurysms presenting with night sweats despite negative blood cultures

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DESCRIPTION

A 76-year-old man, an ex-smoker with hypertension, presented to hospital with a 3-week history of continuous night sweats and low-grade fever. Several days after arrival, he developed upper abdominal pain. Body temperature was 36.9°C, blood pressure was 140/88 mm Hg and heart rate was 86 bpm. Physical examination revealed upper abdominal tenderness without defence. Laboratory data showed a white cell count of 9600/μL and an elevated C reactive protein of 4.4 mg/dL. A contrast-enhanced CT scan revealed saccular aneurysms with periaortic infiltration in the descending thoracic and abdominal aorta (figure 1). The patient had undergone intravenous antibiotic therapy for suspected bacterial aortitis despite negative blood cultures.

Eighteen days later, CT aortography demonstrated a rapidly enlarging lobulated descending thoracic aneurysm and an abdominal dissecting aortic aneurysm (figures 2 and 3). The patient's condition and inflammatory markers improved during the treatment period. He was discharged 33 days after admission without surgical intervention. He remains stable 4 months after discharge. An aortic stent graft will be performed due to enlargement of both aortic aneurysms.

An infected aortic aneurysm is frequently a fatal disease. A high index of suspicion is required to diagnose infected aortic aneurysms in a patient with a low-grade fever, night sweats and upper abdominal pain and tenderness. Despite negative blood cultures, physicians should consider starting antibiotic treatment as early as possible with the aim to reduce the possibility of aorta rupture.

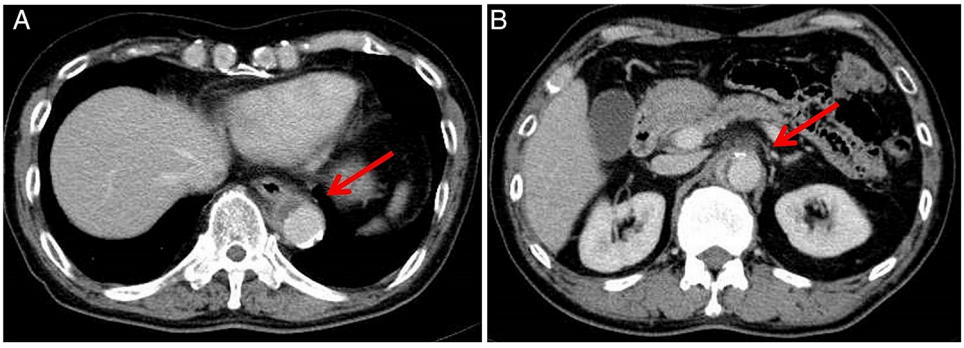

Figure 1 Three days before admission (axial section image). (A) A large saccular aneurysm with a thrombosis and an enhanced aorta wall in the descending thoracic aorta, measuring a maximum diameter of 36 mm with surrounding inflammation (arrow). (B) A large aneurysm with aorta wall calcification in the descending abdominal aorta, measuring a maximum diameter of 28 mm with surrounding inflammation (arrow).

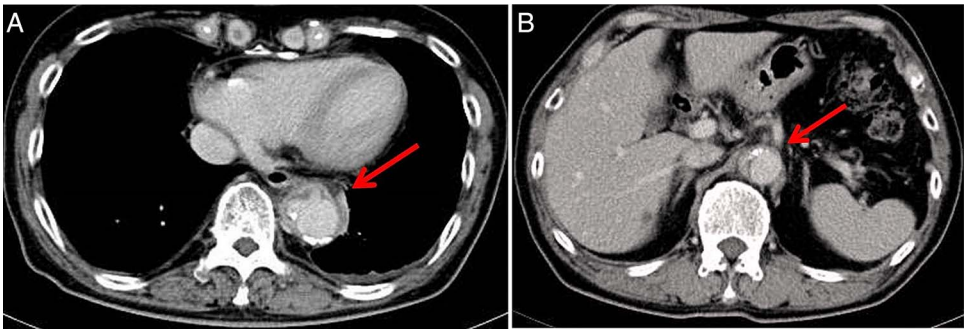

Figure 2 CT aortography 18 days after admission (axial section image). (A) A rapidly enlarging lobulated aneurysm in the descending thoracic aorta measuring a maximum diameter of 38 mm (arrow). (B) A dissected aneurysm in the abdominal aorta around the coeliac artery enlarged to a maximum diameter of 29 mm (arrow).

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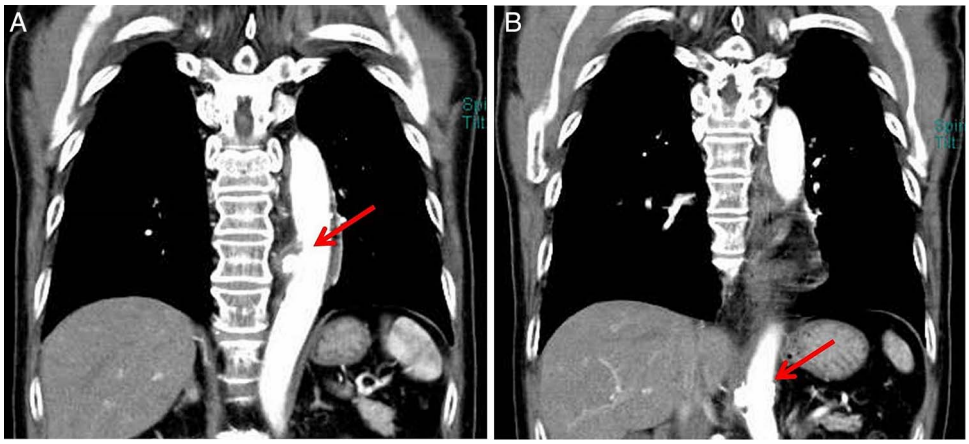

Figure 3 Eighteen days after admission (coronal section image on arterial phase). (A) A rapidly enlarging lobulated aneurysm to the right side of the descending thoracic aorta. (B) Enlargement of a dissection on the right side of the abdominal aorta around the coeliac artery (arrow).

Learning points

- A contrast-enhanced CT scan should be considered in patients with a low-grade fever, night sweats of unknown cause and upper abdominal pain and tenderness.
- Negative blood cultures cannot rule out an infected aortic aneurysm.

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