An 86-year-old man presented to our emergency department with fever that he had been experiencing for days. His body temperature was 38.6°C (101.5°F), heart rate was 86 bpm, and blood pressure was 96/50 mm Hg. There was no chest pain, back pain, or abdominal discomfort. Previous medical history included type II diabetes mellitus and prostate cancer under hormonal therapy. Decreased left breathing sound was noted. Initial laboratory studies revealed leukocytosis, elevated C-reactive protein, and acute renal failure. A chest x-ray disclosed a massive amount of left pleural effusion. A thoracocentesis was performed, and the fluid was pus-like exudates. Transverse, sagittal, and coronal views of noncontrast chest computed tomography are shown in Figure A, B, and C, respectively (see also Movies I through III in the online-only Data Supplement). Periaortic foamy air collection was found up to the arch and down to the infrarenal abdominal aorta. Aortic wall invasion was observed in a segment of thoracic aorta, suggesting the possible origin of infection. Mycotic aortitis was suspected. Because of the patient’s age, surgical intervention was turned down by family. Sudden circulatory arrest occurred several hours later without response to resuscitation. Cultures of blood and pleural effusion reported the presence of *Salmonella enteritidis* group B, a notorious species for endovascular infection.

Mycotic aneurysm should be highly suspected in those patients with compatible results of image studies and positive bacteremia. In contrast to aneurysms without infection, typical computed tomography findings of infected aneurysms include thickened contrast-enhanced walls with a tendency to extend into adjacent soft tissues, more irregularity in shape, or similarity to a focal ulceration with a “punched-out” appearance. Air collection within the aortic wall is evidence that one of the gas-forming species such as *Salmonella* is the pathogen causing the infection. Although less frequent in the West, the nontyphoid *Salmonella* species account for up to 80% of mycotic aneurysms in Taiwan. Standard treatments include effective antibiotic therapy, excision with appropriate debridement, and reconstruction by in situ graft or extra-anatomic bypass. As an alternative, endovascular stent grafts could also be considered. Whenever *Salmonella* bacteremia occurs, aggressive medical treatment should be offered to the elderly, immunocompromised patients, those with comorbidities, or patients with endovascular atherosclerotic lesions to prevent endovascular infection.

### Disclosures

None.

### References


### Figure

A, Transverse view of noncontrast chest computed tomography. Air collection is found around the whole circumference of the thoracic aorta. B, Sagittal view showing air collection within the aorta and periaortic tissue along the distal arch and descending aorta. A breaking point is noted at the midthoracic level, which might be the site where the aneurysm eventually ruptured. C, Coronal view of the chest computed tomography. Air extends into the lower thoracic aorta. A massive left pleural effusion is shown.
Emphysematous Aortitis
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