

# Intra-arterial gas, a clue for diagnosis of infective aortic aneurysm

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July 1, 2020

A 70-year-old diabetic woman was admitted to our hospital with a complaint of high fever accompanying shaking chills for three days. The patient had no abdominal symptoms and no history of eating raw food. The patient's body temperature was increased to 39 °C, and blood analysis showed elevations of leukocytes (17,400 / $\mu$ L) and C-reactive protein (16.5 mg/dL). Computed tomography revealed air density spots in the aortic wall (**Fig A**), and *Salmonella enteritidis* serotype O9 was detected by blood culture. Under a tentative diagnosis of Salmonella-induced infective aortic aneurysm, the patient underwent antibiotic treatment with ampicillin/sulbactam. On day 11, the air had disappeared and the aortic wall showed a varicose deformity, leading to a differential diagnosis of infective aortic aneurysm (**Fig B**). The patient recovered completely with 8-week antibiotic therapy without any operation.

Cases of infective aortic aneurysms account for only about 1% to 3% of total cases of aortic aneurysm. However, the case fatality has been reported to be as high as 18 percent in two years<sup>1</sup>, and an early diagnosis is essential. *Salmonella* species are known as a common pathogen of the crucial infection<sup>2</sup>, and so clinicians should pay attention to the development of the disease.

## References

1. Kan CD, Lee HL, Yang YJ. Outcome after endovascular stent graft treatment for mycotic aortic aneurysm: a systematic review. *J Vasc Surg.* 2007;46(5):906.
2. Hsu RB, Chen RJ, Wang SS, Chu SH. Infected aortic aneurysms: Clinical outcome and risk factor analysis. *J. Vasc. Surg.* 2004; 40: 30–35.

## Figure Legend

**The abdominal computed tomography on admission (A) and on day 11 (B).**

Air-density spots were found in the aortic wall (A, arrowheads), which later disappeared and outpouching of the arterial wall emerged at the corresponding site (B).

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