



Medical Imagery

## Aortic Graft Infection in an Older Patient

Tai-Jung Chen, Chien-Chieh Hsieh \*

Department of Emergency Medicine, Far Eastern Memorial Hospital, New Taipei City, Taiwan

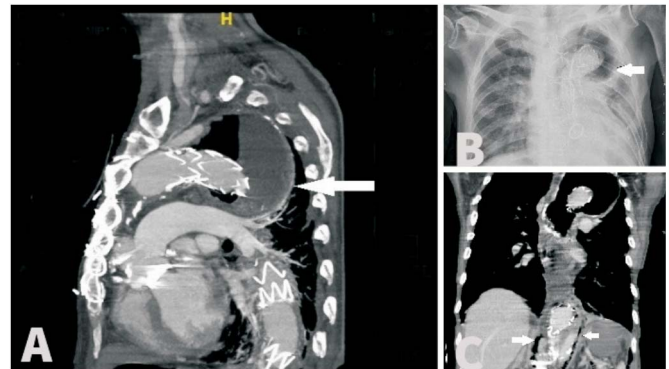
### ARTICLE INFO

Accepted 23 September 2022

A 65-year-old man presented to the emergency department with a history of hypertension, end stage renal disease, and a surgical history of type A aortic dissection thrice since 2010 to 2019. He suffered from poor appetite and malaise for several days. On physical examination, he was afebrile and drowsy, with a pulse rate of 90 beats/min, blood pressure of 113/50 mmHg. No chest pain but diffuse abdominal tenderness were revealed. Peripheral pulsation of both arms were intact and symmetrical. Laboratory examination showed procalcitonin level of 29 ng/ml, and WBC count of 3,160 cells/ $\mu$ L with a band form 25.7%. Chest radiography revealed a cavity mass in the left upper lung (Figure 1B). Computed tomography (CT) showed cavity lesions with free gas and fluid, surrounding the aorta, and perigraft abscess formation (Figure 1A & C). Empirical antibiotics were prescribed. Owing to severe sepsis, he died 4 days later after intensive care unit admission.

Aortic graft infection (AGI) is a rare complication of post-aortic repair surgeries with an incidence of approximately 3%.<sup>1</sup> Perigraft abscess is a rare condition; early diagnosis is important for timely intervention and improving the survival rate of patients.<sup>2</sup> Late infection is majorly related to underlying diseases and thrombosis.<sup>3</sup> In our case, cultures of blood grew *Proteus mirabilis*. Early drainage of abscess via ultrasound or CT-guided aspiration may be helpful.<sup>4</sup> Symptoms of AGI are vague and require a high suspicion by the physician while treating patients with aortic grafts.

\* Corresponding author. Department of Emergency Medicine, Far Eastern Memorial Hospital, No. 21, Sec. 2, Nanya S. Rd., Banqiao Dist., New Taipei City 220, Taiwan.  
E-mail address: [hsiehchienchieh@gmail.com](mailto:hsiehchienchieh@gmail.com) (C.-C. Hsieh)



**Figure 1.** A: CT shows cavity lesions, with free gas and fluid inside (arrow), surrounding the aorta graft. B: Chest radiograph shows the left lung cavity mass (arrow). C: CT shows bilateral pneumoretroperitoneum (arrow).

### References

1. Fujii T, Kawasaki M, Katayanagi T, et al. A case of an aortic abscess around the elephant trunk. *Ann Thorac Cardiovasc Surg.* 2015;21:570–573.
2. Moulakakis KG, Sfyroeras GS, Mylonas SN, et al. Outcome after preservation of infected abdominal aortic endografts. *J Endovasc Ther.* 2014;21:448–455.
3. Raj R, Unnikrishnan D, Jacob A, Ashish K, Prakash A, Shah A. Periaortic abscess following DeBakey type-1 aortic dissection repair with Dacron graft—Early diagnosis and management. *Case Rep Cardiol.* 2019;2019: 6915356.
4. Wilson WR, Bower TC, Creager MA, et al. Vascular graft infections, mycotic aneurysms, and endovascular infections: A scientific statement from the American Heart Association. *Circulation.* 2016;134: e412–e460.