

Case	(611) Aortic endoprosthesis and high grade fever: a fatal combination
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CASE PRESENTATION

A 71 years-old female attended to the Emergency Department with mid-thoracic pain, bad general status and high grade fever (39°C). The laboratory tests revealed a creactive protein of 34.3 and 12,800 leukocytes. The patient had a previous history of contained rupture of the descending aorta treated with a prosthesis four months ago.

A computed-tomography angiography (CAT) of the thoracic aorta (without contrast, in arterial and venous phases) revealed air bubbles and soft tissue density around the aortic endoprosthesis, findings compatible with an aortitis. No signs of aortic rupture were depicted.

A 18- F-FDG PET/CT was then performed, which revealed metabolic uptake around the endoprosthesis in the descending aorta (SUV max= 10,8), compatible with an aortic infection.

The patient was given broad spectrum antibiotics but died three days later, before she could be operated by the cardiovascular surgeon

DISCUSSION

Aortitis is a rare complication of aortic graft repair (approximately 1%), and carries a high morbidity and mortality [1]. The most common isolated microorganism in aortic graft infection is *Staphylococcus aureus* within the first three months, and and coagulase-negative *Staphylococcus* in late infections [1].

Symptoms of aortitis are often non-specific, and include fever and chills, chest pain and erythema [1].

Computed-tomography (CT) is the most commonly used imaging modality for the study of aortic graft infection, and on it, perigraft soft tissue, perigraft fluid collections and perigraft air bubbles beyond three months post aortic repair suggest the diagnosis [1,2].

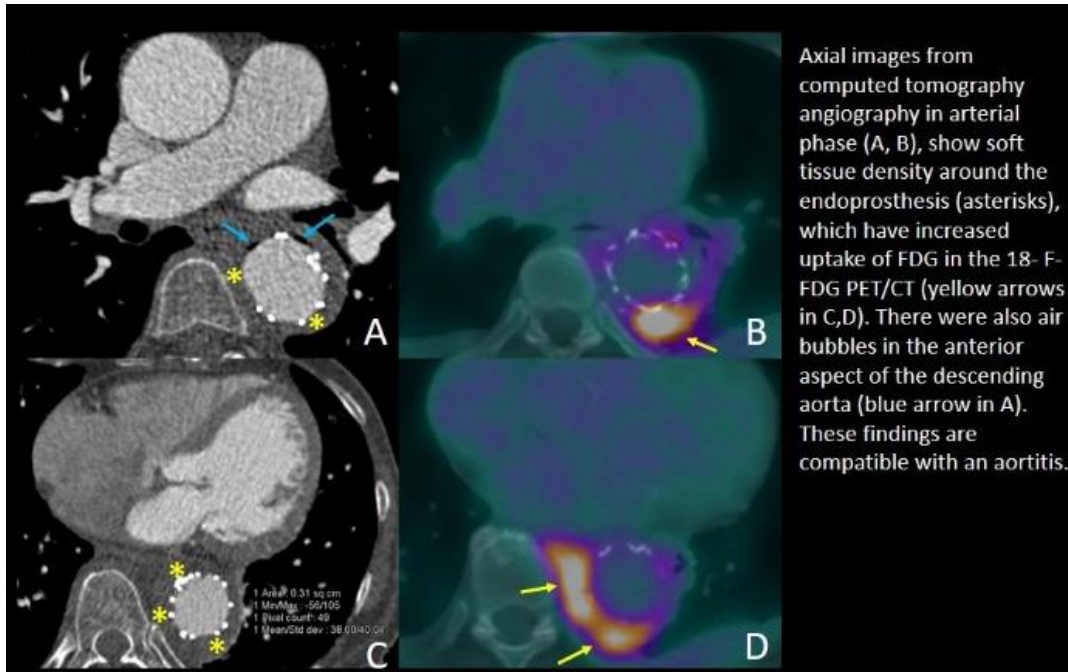
To confirm the presence of aortitis, above all in low-grade infections, 18- F-FDG PET/CT is helpful. This imaging technique shows focal or heterogeneous increased FDG uptake along the graft, and has a sensitivity and specificity of 89-100% and 86-100% respectively [1].

Treatment of aortic graft infection includes intravenous administration of antibiotics, resection of the endograft, and extra-anatomic by-pass or in situ venous bypass.

However, despite the use of aggressive treatment, the outcome is usually poor [2].

CONCLUSION

Aortitis is a rare but severe complication of aortic endoprosthesis that can result in sepsis and death. Knowledge of the main imaging findings of this entity in different imaging techniques helps making an early diagnosis, which is key for the survival of these patients



BIBLIOGRAPHY

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