

Aortic valve stenosis and non cardiac surgery: a combined approach

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AIMS

Aortic valve stenosis (AS) is the most common valvular disease, and its prevalence increases with age along with other comorbidities: in this population, managing AS and other non-cardiac conditions requiring surgical intervention can be challenging. Among symptomatic patients, the guidelines recommend aortic valve intervention before major non-cardiac surgery because it reduces the incidence of postoperative heart failure and improves rates of long-term overall survival. We present two cases of symptomatic severe AS managed with concomitant non-cardiac surgeries.

CASE 1

The first patient is an 80-year-old female affected by severe AS symptomatic for chest pain and dyspnea at rest. She was initially indicated for TAVR, but the pre-operative CT showed a non-favorable anatomy.

The CT also showed a diaphragmatic hernia bulging into the ascending aorta, preventing access to the aortic root; however, abdominal surgery could not be safely performed in the presence of the AS.

The multidisciplinary evaluation concluded with a combined approach: the patient underwent the diaphragmatic hernia repair followed by the aortic valve replacement via right anterior mini-thoracotomy using a sutureless Perceval Valve (Corcym, Saluggia, Italy), size M.

The procedure was performed without complications, and the patient was discharged on the eleventh postoperative day.



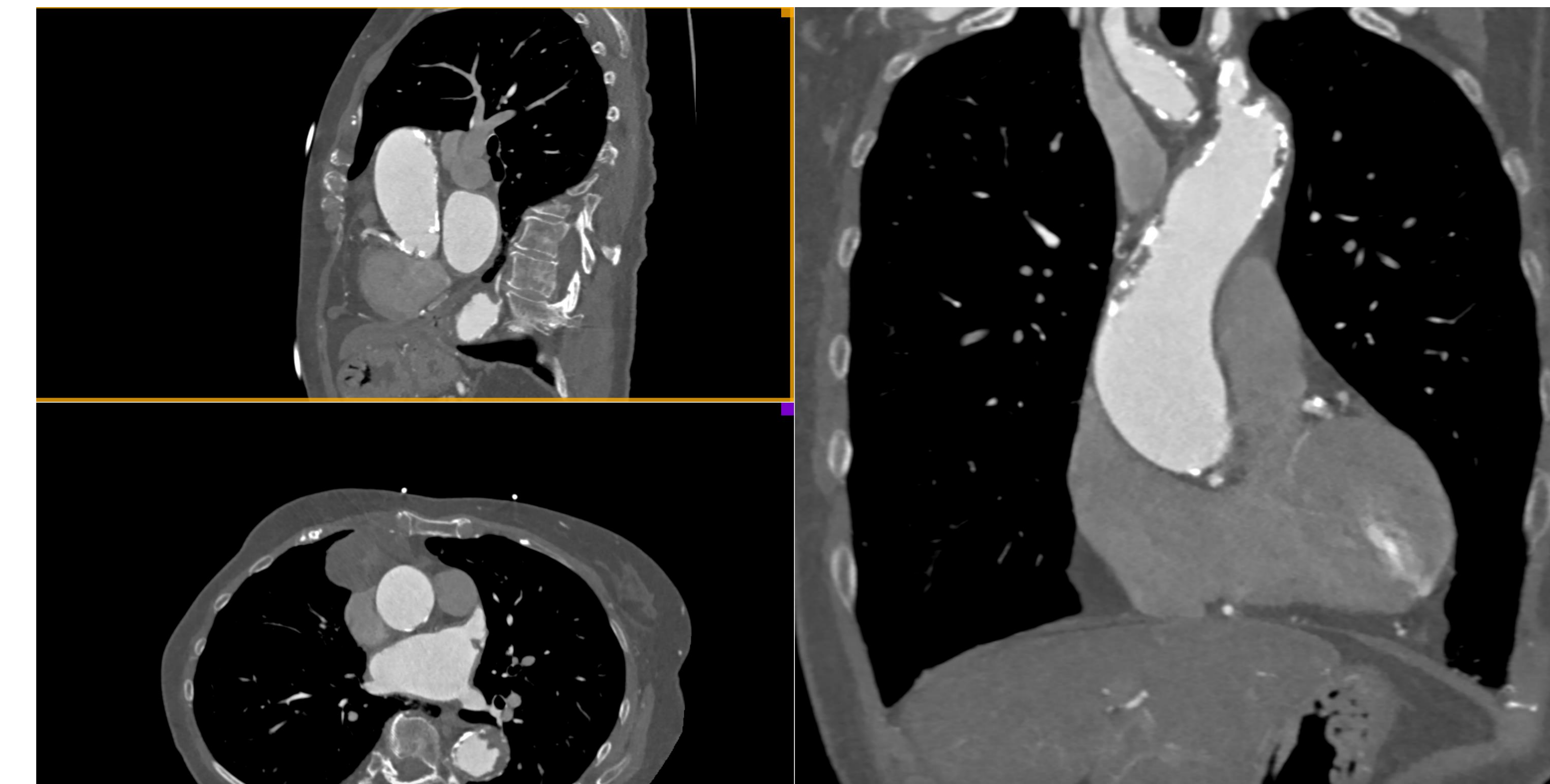
CASE 2

The second patient is an 81-year-old female affected by severe AS, symptomatic for dyspnea with mild exertion and affected by severe diffuse atherosclerosis.

Preoperative CT revealed non-navigable peripheral access and a 4.2 cm mediastinal mass with mild arterial enhancement. A PET scan showed moderate glucose hypermetabolism in the same area. Following multidisciplinary discussion, an indication was made for valve replacement and concurrent removal of the mass (suspected thymoma).

Using a mini-sternotomy approach at the fourth intercostal space, the mediastinal mass was excised, and a 26-mm Evolut FX prosthetic aortic valve (Medtronic, Minneapolis, Minnesota) was implanted via the transaortic route, after valvuloplasty.

The patient was extubated in the operating room and discharged on the seventh postoperative day.



CONCLUSIONS

Managing aortic valve stenosis and non-cardiac conditions requiring surgery can be tricky: a multidisciplinary team capable of offering a wide range of options can provide these patients with a safe and comprehensive treatment