

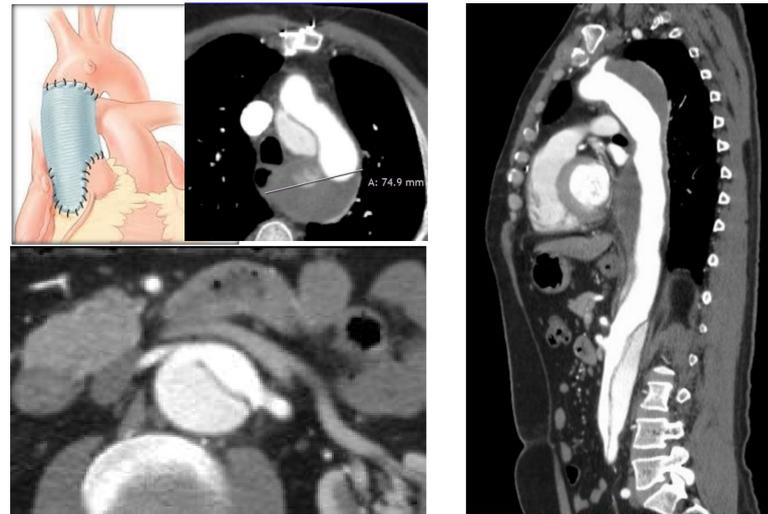
## ABSTRACT

**Background:** Tears in the visceral aortic segment pose an endovascular challenge during the management of dissections. There is no consensus on the ideal treatment.

**Methods:** This is a case report demonstrating the management of an aortic dissection with tears in the visceral segment.

**Results:** We managed this patient by total arch debranching and TEVAR of the whole thoracic aorta followed by a bare metal dissection stent in the visceral segment. The true lumen expanded, and the false lumen decreased with progressive thrombosis after 9 months.

**Conclusions:** The use of dissection stents could be an efficient treatment modality for visceral segment tears. Large scale trials are needed to establish its role.



## BACKGROUND

Tears in the visceral aortic segment pose an endovascular challenge during the management of dissections, because it's necessary not to cover the branches arising from this segment. There is no consensus on the ideal treatment.

## METHODS

We report the management of an aortic dissection in a 58-year-old, who presented one year earlier with a type A aortic dissection, repaired by David reimplantation procedure. This was followed 11 months later with back pain. A new CT showed new dissection starting after the previously performed synthetic graft involving the whole aorta. The false lumen ranged in diameter between 20-80 mm and was partially thrombosed. A large secondary tear was noticed at a level between the SMA and right renal artery. There were no ischemic manifestations related to the visceral branches. Planning for endovascular repair was done.

## RESULTS

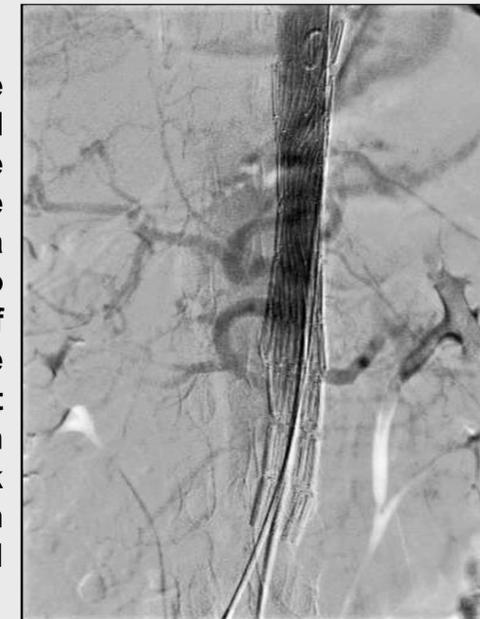
We performed total arch debranching using a 16mm Dacron graft, anastomosed to the previous graft. 8 mm Dacron grafts were used to vascularize the left CCA & subclavian artery. All supra-aortic trunks were ligated at their origins from the aorta.



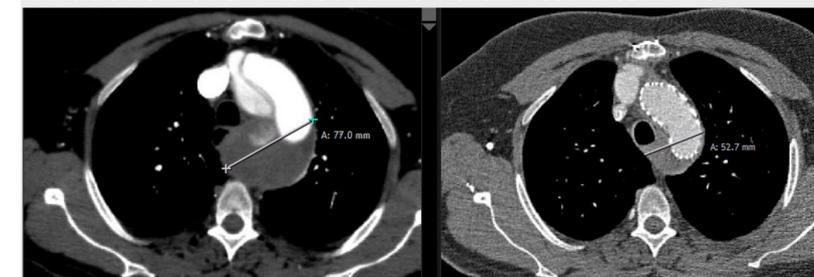
## RESULTS

Two weeks later the patient underwent TEVAR. IVUS was used to confirm the passage of bilateral wires in the true lumen, and to visualize the tears in the aorta. Two devices (TXI, Cook Medical, USA, 200mm length, 34 mm diameter) were used to cover the segment starting after the anastomosis of the debranching graft till 40mm above the coeliac trunk.

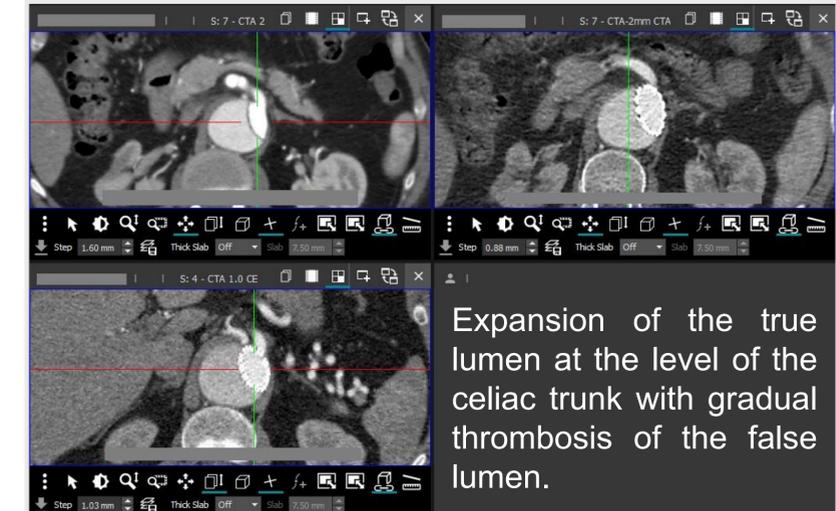
Persistence of the false lumen and small size of the true lumen of the infrarenal aorta (12-14mm) led to the deployment of a dissection bare metal stent (diameter, 164mm length, Cook Medical, USA) in the visceral segment.



Reduction of the false lumen diameter after TEVAR

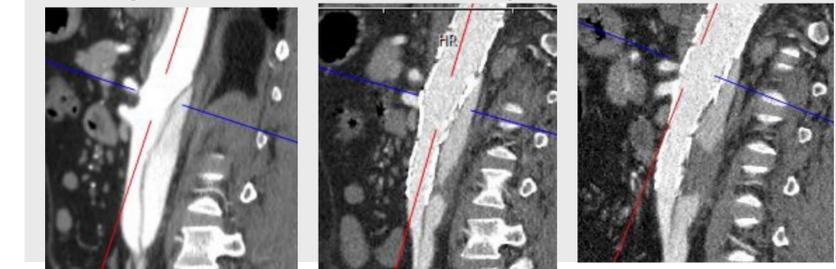


## RESULTS



Expansion of the true lumen at the level of the celiac trunk with gradual thrombosis of the false lumen.

Over one year there was gradual expansion of the true lumen with no expansion of the false lumen. The latter showed gradual thrombosis. The exclusion by TEVAR together with the use of a dissection stent was successful in the management of the distal entry tear.



## CONCLUSION

The use of dissection stents could be an efficient treatment modality for visceral segment tears. Large scale trials are needed to establish its role.

## DISCLOSURES

I have nothing to disclose