

# Elective 2nd stage TEVAR to complete Frozen Elephant Trunk in the surgical correction of complex multisegmental pathology of the aorta

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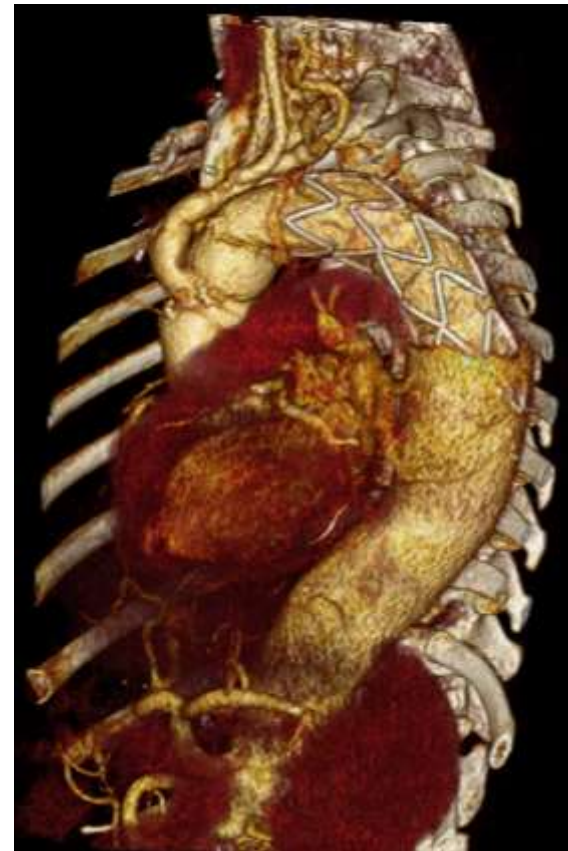
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# Introduction

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- Classical conventional surgery to treat multi-segmental thoracic aortic disease in two operative stages, sternotomy and left thoracotomy, is associated with significant mortality and complications.
- The Frozen Elephant Trunk (FET) associated with a TEVAR allows an extensible and simplified surgical approach of the descending and thoracoabdominal aorta without increasing the risk.
- Objective: to review short and medium-term clinical results with this two-stage technique.



# Methods

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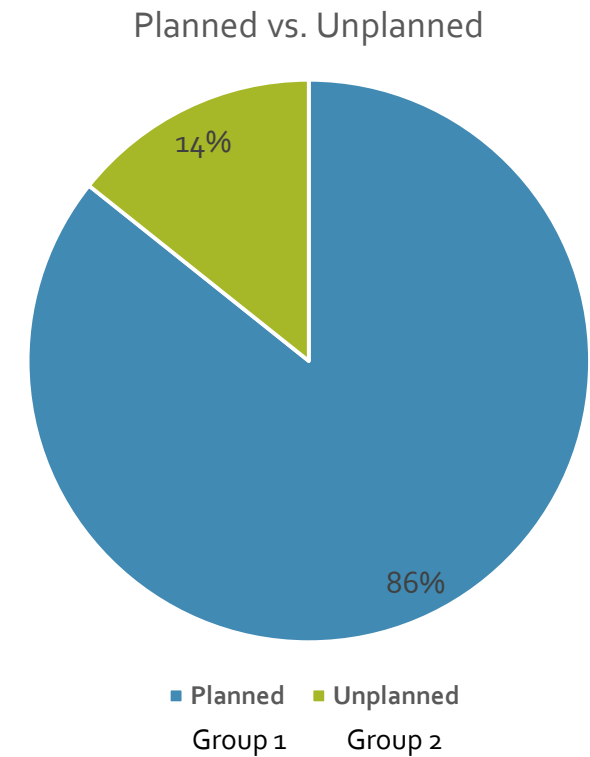
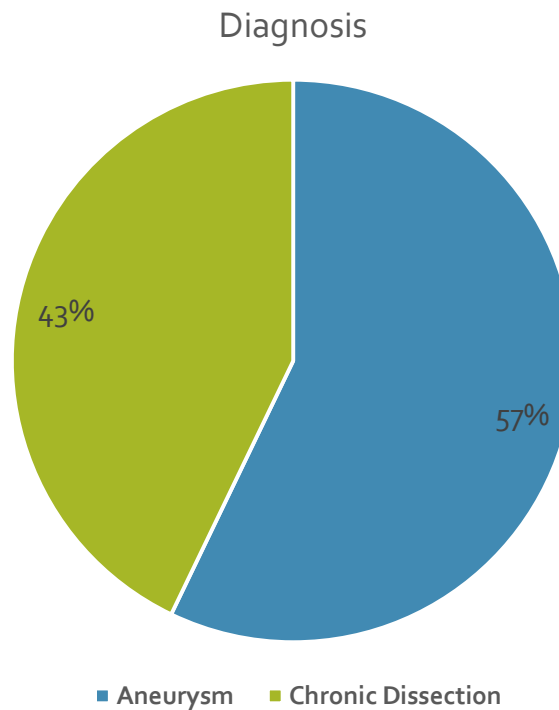
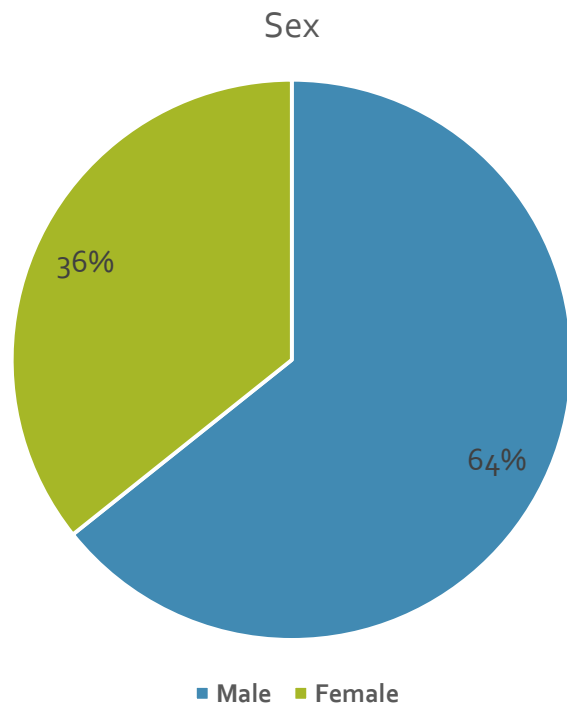
- Between June 2010 and December 2018: 51 FET
- 2<sup>nd</sup> stage: n=14 (27,5%)
- All patients were periodically followed up in our outpatient clinic with CT or MRI angiography



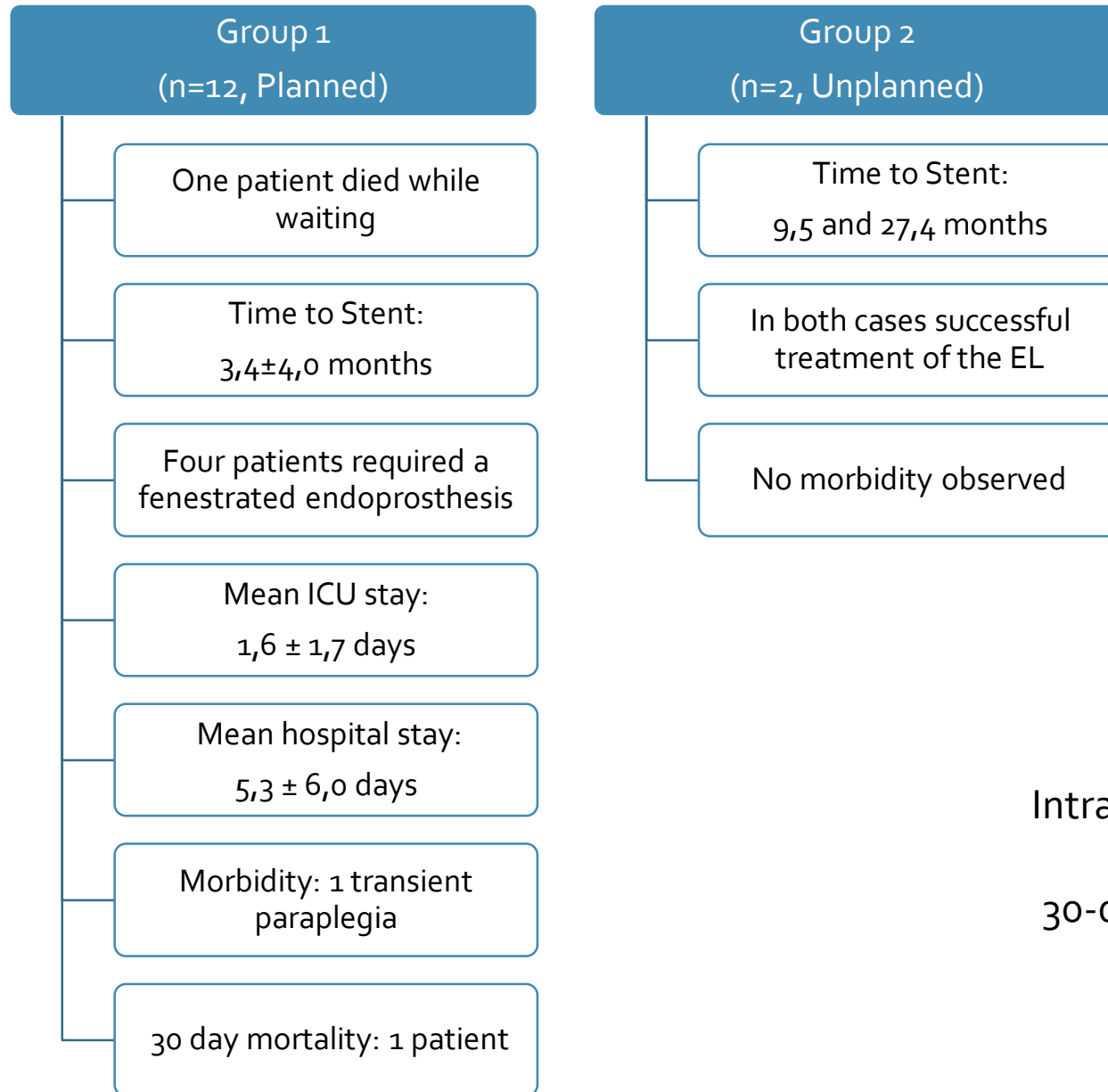
# Results

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- 14 patients, follow-up:  $22,5 \pm 20,0$  months
- Mean age:  $68,1 \pm 6,1$  years



# Results



Intra-operative mortality: 0

30-day mortality: **1 (7,7%)**



# Results



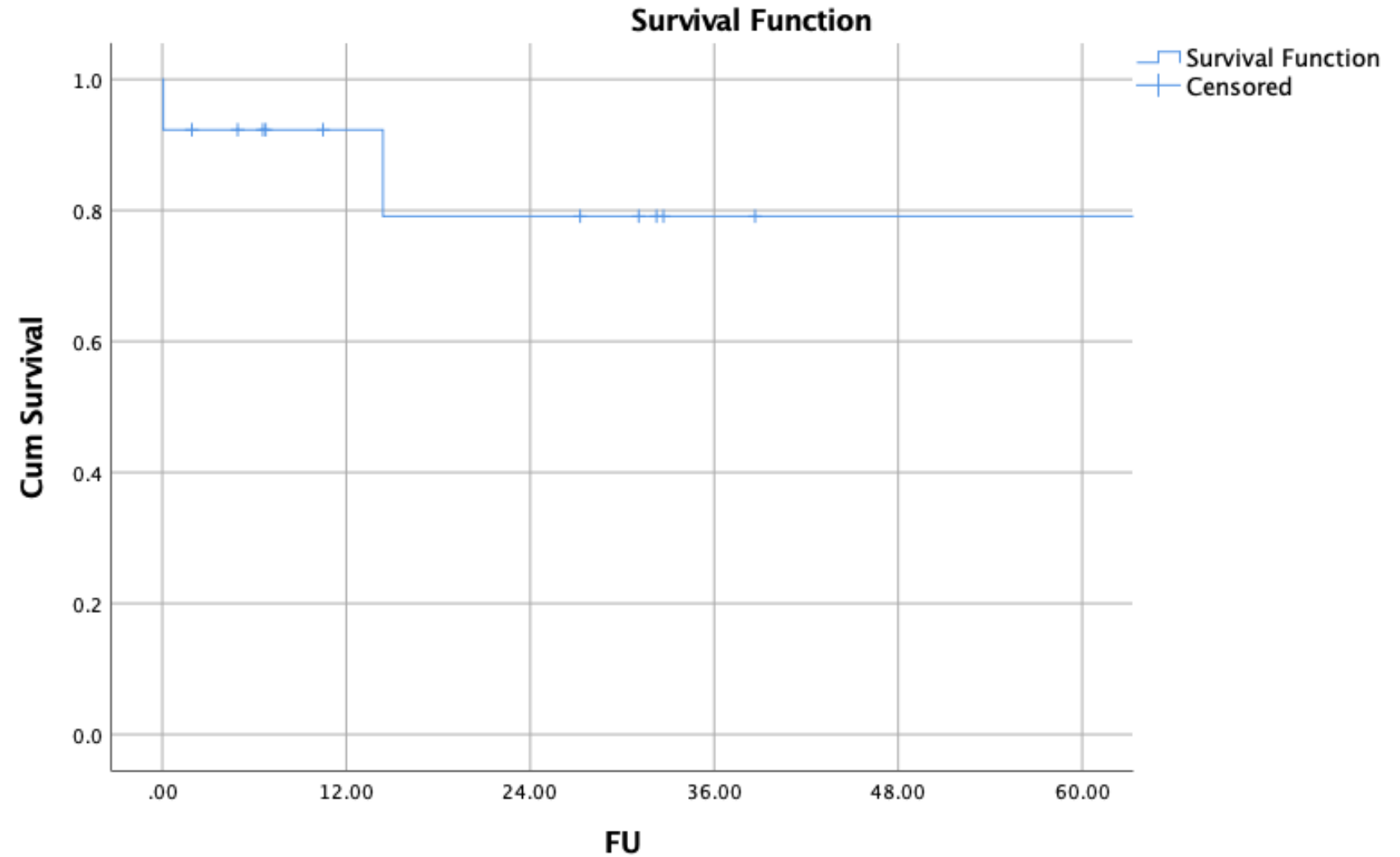
# Results

## Survival (all pts)

1 year: 92,3%

2 years: 79,1%

5 years: 79,1%

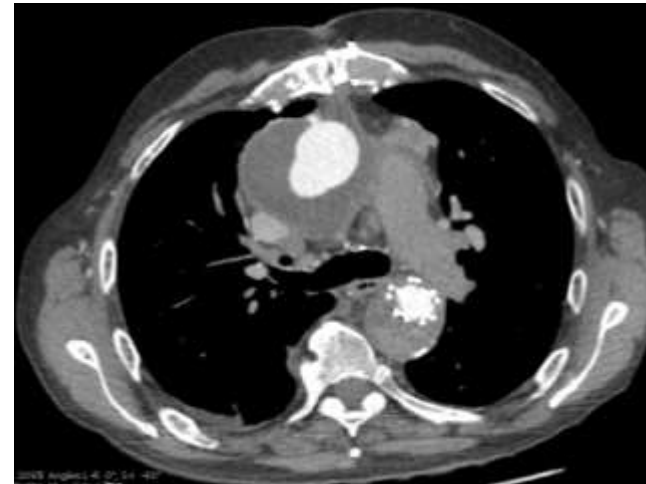
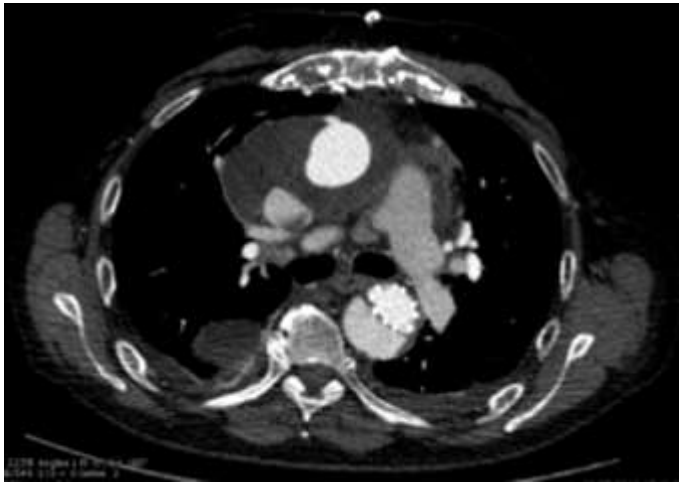


# Results

1 week



6 months



All surviving patients are in Class I NYHA, currently without endoleaks and with the expected involution of the aneurysmal sac and positive remodelling of the aorta.

# Conclusion

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- This strategy is safe and effective.
- The FET provides an optimal proximal landing zone.
- Clinical follow-up associated with close postoperative imaging surveillance is required:
  - determine the optimal interval between the two stages, which is dependent on the anatomy and underlying pathology of each patient
  - identify possible complications
- The quality of life of these patients at medium and long-term is excellent.

# Thank you



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