

2nd International Meeting on Aortic Diseases
New insights into an old problem
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The frozen elephant trunk with E-Vita Open Plus
in complex aortic pathologies

Short communication

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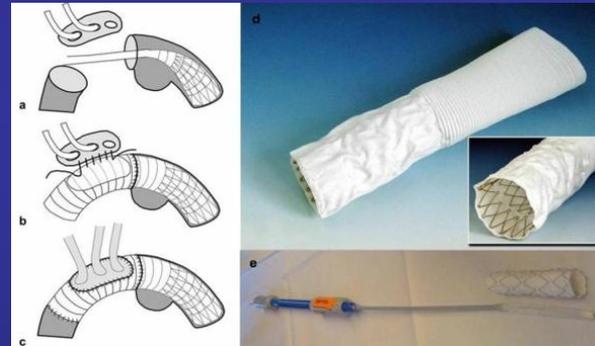
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Introduction

The 'frozen elephant trunk' technique, combining endovascular with conventional surgery, represents a simple hybrid strategy for surgery on aortic arch and desc. aorta.

Evita Open Plus hybrid stent graft (Jotec Inc, Hechingen, Germany) enables aortic arch replacement and simultaneous desc. aorta stent grafting via sternotomy.



We report our experience with E-Vita Open Plus in three complex cases.



2nd Case

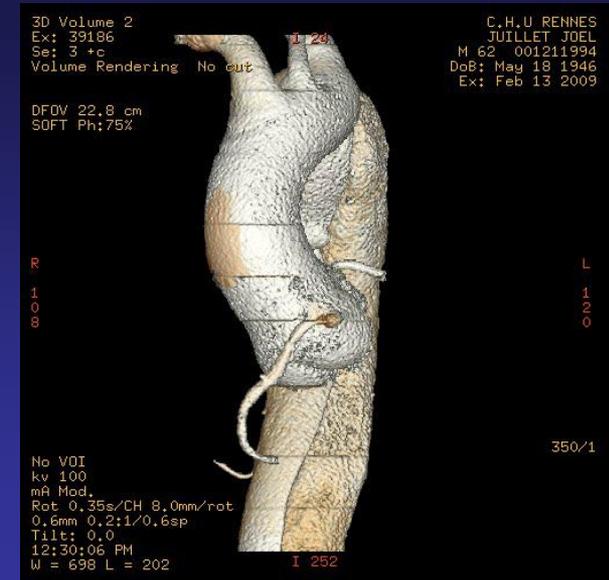
Male, 62 years/old

Risk factors: heredity, hypertension

Asymptomatic Type B aortic dissection

Intimal tear in aortic isthmus with 78 mm dilatation

Aortic root dilatation 54 mm



Evita Open Plus (24mm) in chronic type B aortic dissection associated to Aortic Root Surgery (Tyrone David procedure)



3rd Case

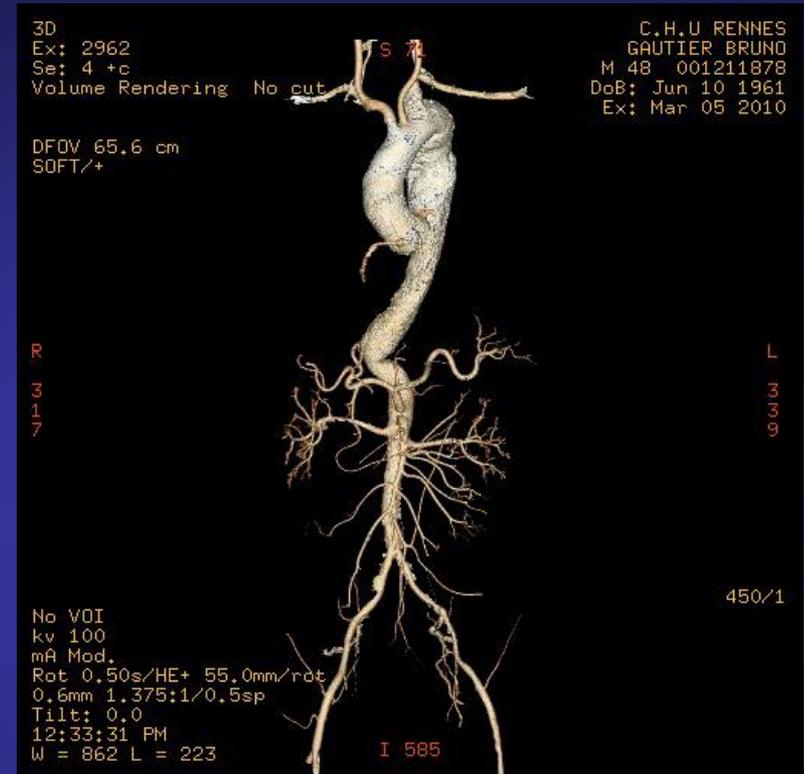
Male, 49 years/old

Risk factors:
smoking, hypertension, dyslipidemia.

Comorbidities: BPCO, HIV+

Thoraco-abdominal anevrysms
(distal aortic arch to coeliac trunk)

Left carotido-subclavian a. bypass



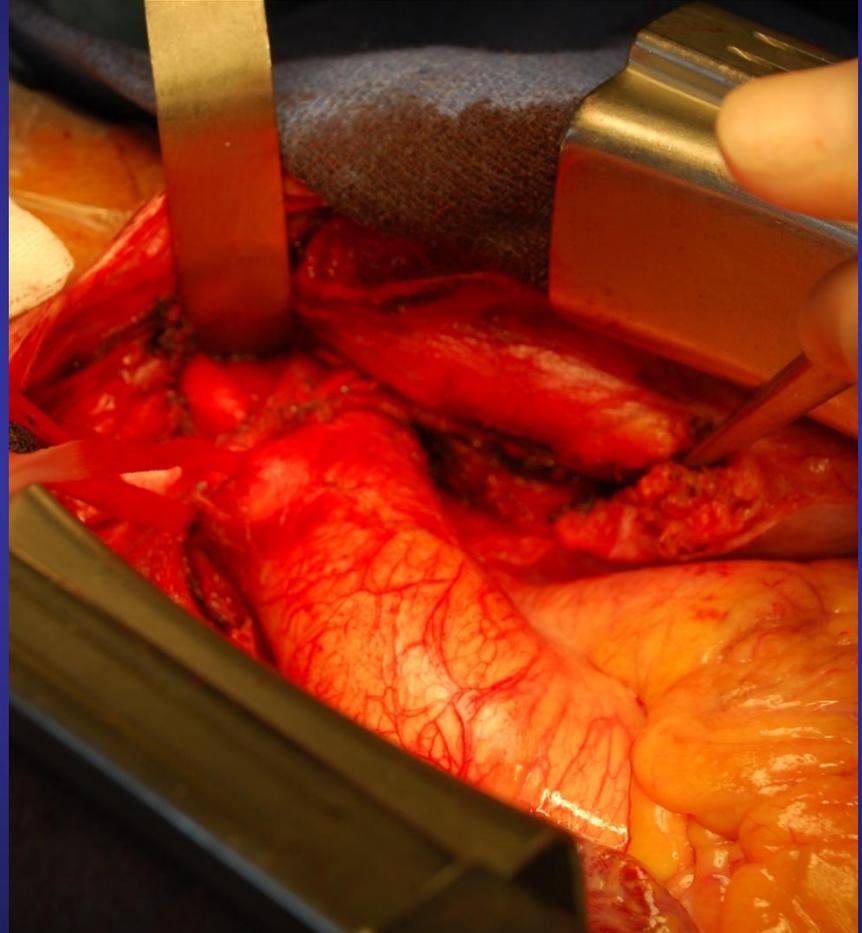
**Evita Open Plus + 2 Evita endoprosthesis
in thoraco-abdominal anevrysms**



3rd Case



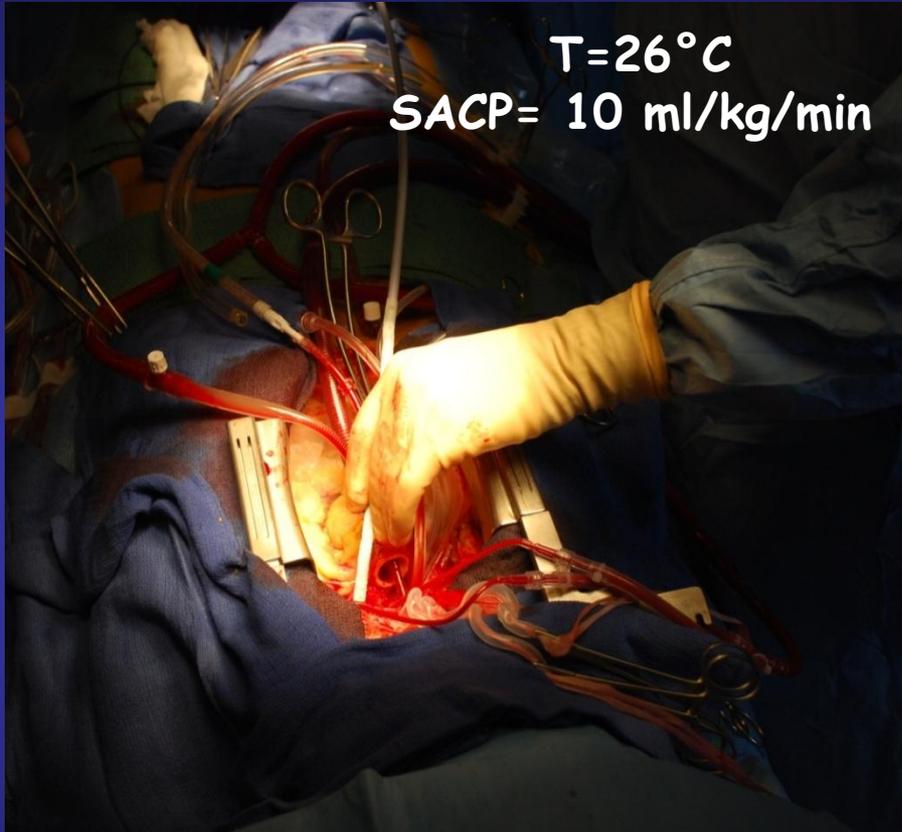
Celiac trunk
cannulation



Innominate and left CCA
control



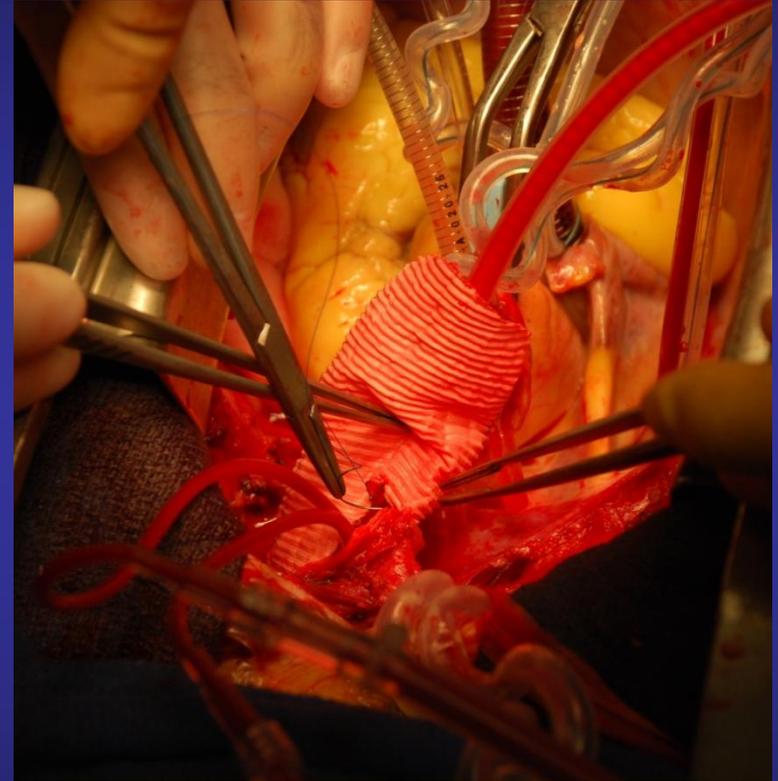
3rd Case



2 Evita endoprosthesis
(24 et 26 mm)
deployment under fluoroscopy
up to coeliac trunk



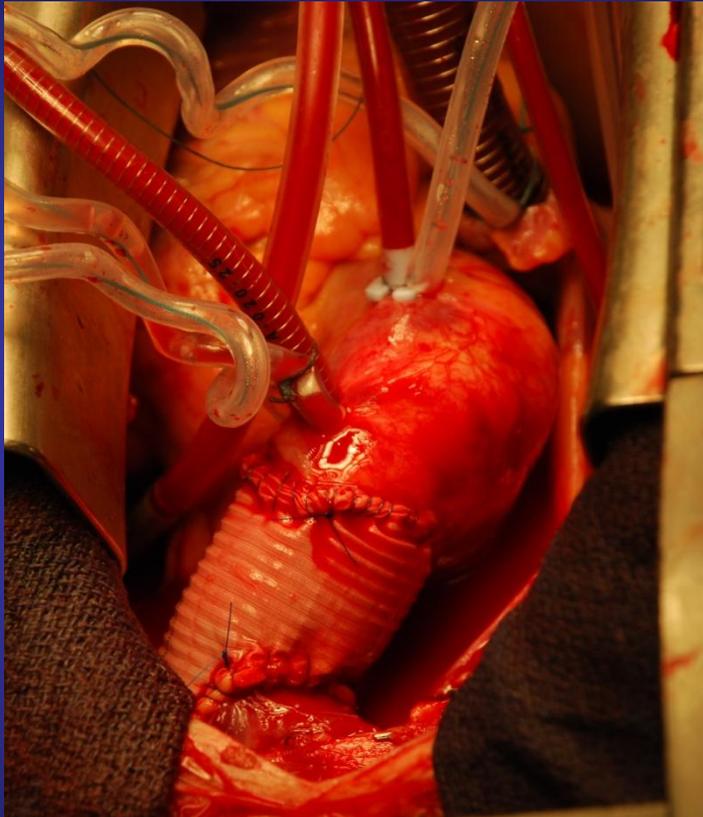
3rd Case



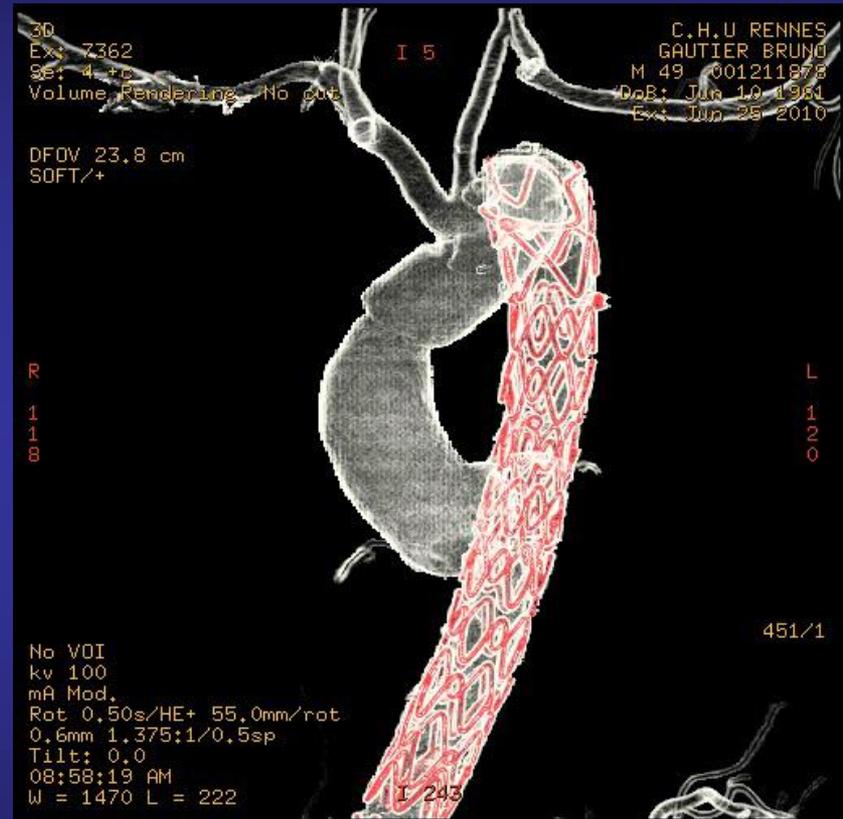
Polyester tube used for aortic arch replacement



3rd Case



Final result



Postop CT scan



Results

All patients were successfully treated.

Postoperative complications:

1 ARDS (Case n°2)

1 transient sphincterical dysfunction (Case n° 3)

Mean first 24h postoperative bleeding: 630 ml.

Postop CT scan: good result of aortic arch replacement and of stent deployment (false lumen thrombosis - no endoleak)



Conclusions

The E-vita Open Plus hybrid prosthesis combines surgical and interventional technologies and represents a feasible and effective option in the treatment of complex aortic pathologies involving aortic arch and descending aorta.

The reduced porosity of the new device allows efficient post-operative haemostasis comparing to first generation.

