AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES. REPORT OF TWO CASES.

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Disclosure

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I have the following potential conflicts of interest to report:
- [ ] Consulting
- [ ] Employment in industry
- [ ] Stockholder of a healthcare company
- [ ] Owner of a healthcare company
- [ ] Other(s)

- [✓] I do not have any potential conflict of interest
Acute aortic dissection is a common catastrophic event.

Intervention is reserved for complications like:

- impending rupture
- aneurysmal dilatation
- uncontrolled pain or hypertension
- obstruction of aortic branches with organ malperfusion

Endovascular techniques lead to less invasive and better outcomes.
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

PETTICOAT

STABILISE

Stent-Assisted Balloon-Induced Intimal Disruption and Relamination in Aortic Dissection Repair

- immediate remodeling of the thoraco-abdominal aorta
- reapposition of the dissection flap to the outer layers of the aorta
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CLINICAL CASE 1

Male patient, 70 years old

Pleuritic thoracalgia

Type A aortic dissection

- All renal and visceral vessels emerged from the TL
- FL was partially thrombosed and determining an compression of the TL

Ascending aorta aneurysm

Co-morbidities:
- Hypertension
- Ischaemic heart disease
CLINICAL CASE 1 - OR

“Frozen elephant trunk” + STABILISE technique

- General anesthesia
- CSF drainage

(flouroscopy and transesophageal echocardiography guidance)
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CLINICAL CASE 1 - OR

“Frozen elephant trunk” + STABILISE technique

- Deep hypothermic circulatory arrest
- Hybrid stent graft system (E-vita Open Plus®)
- “island” reimplantation of the supra-aortic branches
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CLINICAL CASE 1 - OR

“Frozen elephant trunk” + STABILISE technique

Stent-graft Cook ZTA® 34-113
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CLINICAL CASE 1 - OR

“Frozen elephant trunk” + **STABILISE technique**

Zenith Dissection Endovascular Stent (ZDES® 36-164-2)
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CLINICAL CASE 1 - OR

“Frozen elephant trunk” + STABILISE technique

STABILISE TECHNIQUE (COOK CODA BALLOON) STENT-ASSISTED BALLOON-INDUCED INTIMAL DISRUPTION AND RELAMINATION IN AORTIC DISSECTION REPAIR
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

Frozen elephant trunk” + STABILISE technique
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CLINICAL CASE 2

Male patient, 69 years old

Type B aortic dissection
  • All renal and visceral vessels emerged from the TL

Bovine aortic arch

Left vertebral artery emerged from the aortic arch

Co-morbidities:
  ▪ Hypertension
  ▪ Dyslipidaemia
Male patient, 69 years old

Type B aortic dissection
  • All renal and visceral vessels emerged from the TL

Bovine aortic arch
Left vertebral artery emerged from the aortic arch

No complications in the acute phase

...discharged under medical management
CLINICAL CASE 2

... 3 MONTHS LATER

Severe bilateral lower limb claudication

- TL compression in the visceral aorta
- Penetrating aortic ulcer

Bilateral assymptomatic carotid stenosis (80%)
**AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES**

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**CLINICAL CASE 2**

... 3 MONTHS LATER

Severe bilateral lower limb claudication

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Bilateral assymptomatic carotid stenosis (80%)

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**PLANNING:**

1. CEA + supra-aortic trunks debranching
2. STABILISE technique
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CC 2 – FIRST STAGE

CEA + supra-aortic trunks debranching

- Left VA re-implantation
- Left CCA-subclavian bypass
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CC 2 – SECOND STAGE

... one week later ➔ STABILISE technique

- General anesthesia
- CSF drainage
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CC 2 – SECOND STAGE

... one week later ➔ STABILISE technique

Two stent grafts (ZTA® P-34-209 + ZTA® P-34-161)
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CC 2 – SECOND STAGE

... one week later ➔ STABILISE technique

Zenith Dissection Endovascular Stent® (ZDES® 34-180)
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

CC 2 – SECOND STAGE

... one week later ➔ STABILISE technique
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES

Left vertebral artery
AORTIC DISSECTION REPAIR USING THE STABILISE TECHNIQUE ASSOCIATED TO ARCH PROCEDURES
STABILISE technique

✓ Fairly recent technique

✓ Need longer follow-up and greater experience to support its safety and efficacy

✓ We expect:
  ▪ better long term results - positive impact on the later aortic remodeling
  ▪ lower reintervention rate

✓ Still to clarify:
  ▪ Ideal timing
  ▪ Indication
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STABILISE technique

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✓ We expect:
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The two cases reported add to confirm that the STABILISE technique is a valid endovascular alternative in the treatment of complicated aortic dissections.
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