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Updated 5-Year Results From The European Experience With The Novel Nexus Single And Double (Duo) Branched (OTS) Endovascular Devices (From Endospan) For The Treatment Of Zone 0 And 1 Aortic Arch Aneurysms: What Makes This Device Unique

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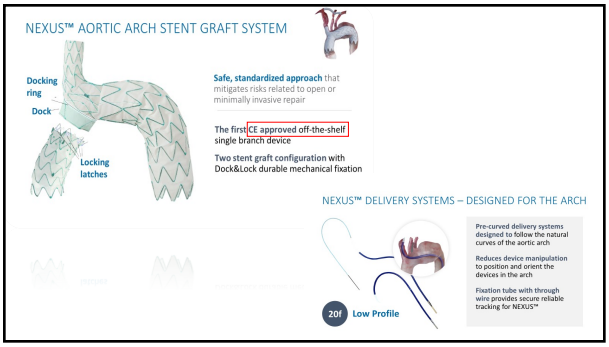
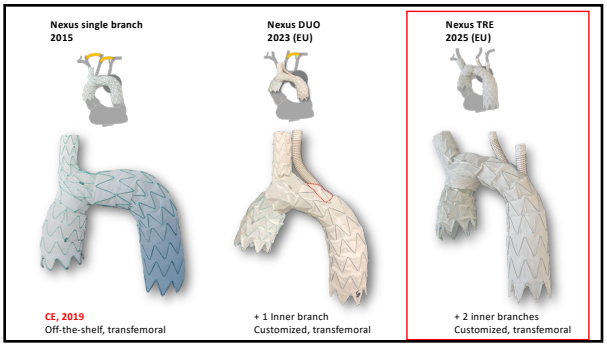
Disclosures Mario L Lachat

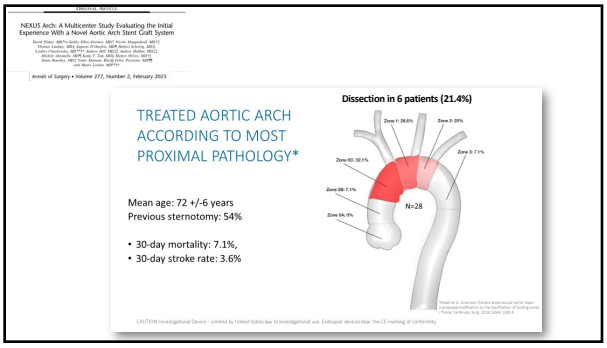
Endospan

- Medical board, Proctor, Lecturer
  - honorary, fees, options

No Disclosures

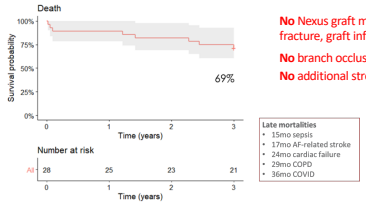






Three-year Follow Up Of Aortic Arch Endovascular Stent-Grafting with the Nexus device. Results from a Prospective Multi-Centre Study

Results @ 3 years



No Nexus graft migration, stent graft separation, stent fracture, graft infoldings or collapse

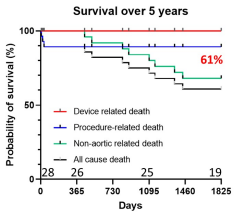
No branch occlusion

No additional stroke

Late mortalities
- 15mo sepsis
- 17mo AF-related stroke
- 24mo cardiac failure
- 29mo COPD
- 36mo COVID

Eur J Cardiothorac Surg. 2022.

Results @ 5 years



No Nexus graft migration, stent graft separation, stent fracture, graft infoldings or collapse

No branch occlusion

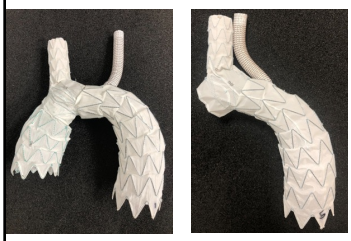
No additional stroke

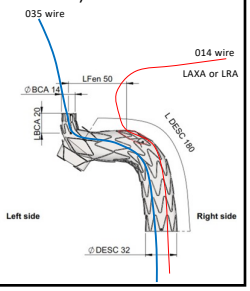
Overall, 6 patients with sack enlargement > 5mm
-All but one <10mm
Two patients with reinterventions [>3y-5y]
-Relining for EL IV/IIIb, distal extension for EL IIIa

On-going trials – Nexus single branch

- **TRIOMPHE** - FDA Study
- **ARCUS** - post marketing EU Study
- **5y FUP, Device and clinical failures**

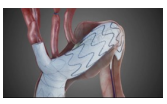
Nexus DUO (inner branch, pre-wired)



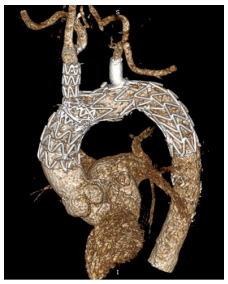


Key Deployment Steps

NEXUS DUO

Introduction	2nd Branch
	
Smooth passage of arch graft delivery system over a through&through guide wire	Deploy the 2nd branch over the 2nd through&through guidewire from CFA

< 24 hours after procedure



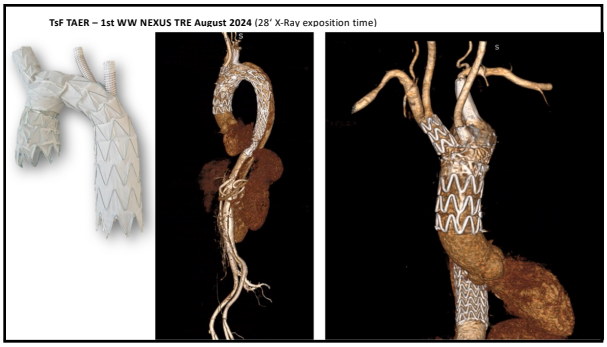
1 month CTA

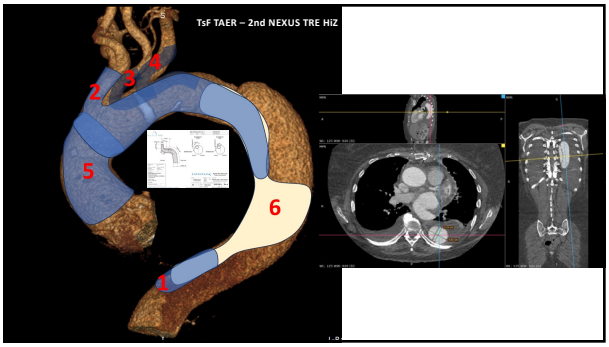
22 consecutive EU Patients (12 AA, 10 AD

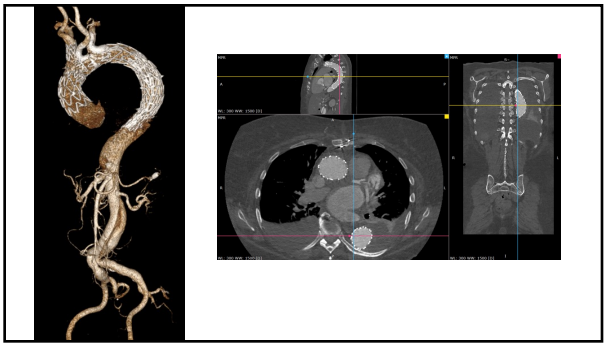
Failure to deliver/track/deploy/retrieve delivery system	0.0% (0/22)
Device Occlusion	0.0% (0/22)
Failed Exclusion of Primary entry tear	0.0% (0/22)
Surgical Conversion	0.0% (0/22)
Reintervention for:	
Migration	0.0% (0/22)
Stenosis or occlusion	0.0% (0/22)
Endoleak	0.0% (0/22)
Loss of device integrity	0.0% (0/22)
Other[1]	4.5% (1/22)

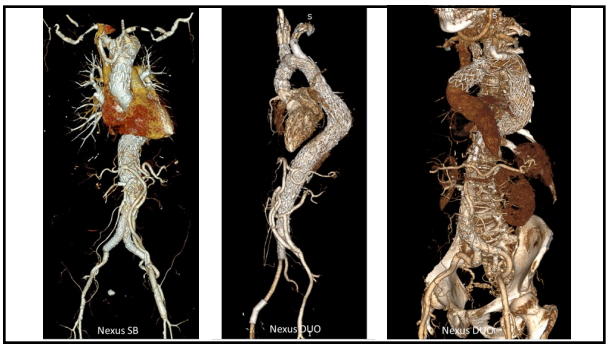
Clinical Outcomes:	
Mortality[1,2]	9.1% (2/22)
Disabling Stroke[2]	4.5% (1/22)
Permanent Paralysis or Paraplegia	0.0% (0/22)
Renal Failure	0.0% (0/22)
Development of new dissections[1]	4.5% (1/22)

[1]The same subject (Retrospect. Patient suspected Connective Tissue Disease: Had Type A dissection with ascending rupture, the site tried surgical conversion; however, the patient expired on day two)
[2]The same subject



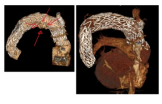


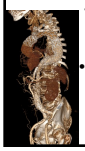




Nexus @ AVC/HiZ – 5y experience

- N=26
  - 17 Single branche (BCA) + 7 Duo + 2 TRE
  - 2 in-hospital death (8%: 1x hematoma right upper mediastinum*, 1x RAAA,)
    - *No direkt contact with Nexus/arch/SAT, no leakage
  - 1x stroke (4%)
  - 1x relining Type IV/IIIb
    - 18 mo. post-implantation





- Technical issue
  - 1 Fracture DUO DS
  - Successful secondary completion

Nexus - Conclusions

Nexus single branch

- 2 dedicated tubes with strong inter-modular locking system
  -Minimal amount of manipulations
- Safe
- Material durability @ 5year
  -No migration
  -1 Type IIIb EL NMM (penetrating calcification spike)

- Off-the-shelf, CE approved
  - FDA trial enrollment for AD completed

- *More experience and longer follow-up*

Nexus DUO/TRE - Conclusions

- Customized pre-wired double/triple branch aortic arch device

- «Lines up with Nexus philosophy»
  - Versatility
  - Percutaneous, transfemoral
  - Manipulation reduced to a minimum
    - + 1(2) T&T 013 or 014 guide wire
  - So far safe
  - «Durability»
    - *More experience and longer follow-up*