

For Treatment Of Ruptured Complex AAAs A Short Custom Made Single Fenestrated Graft Can Be Used To Revascularize The SMA Followed By A Bifurcated Graft And Laser Fenestration For The Renal Arteries: Technique And Experience



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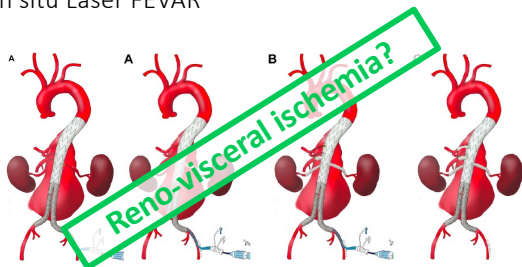
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Disclosures / Conflict of Interest

- Proctor, IP, Research collaboration and/or Speaker:
 - Angiodroid
 - Boston Scientific
 - Cook Medical
 - Gore
 - Medtronic
 - Siemens Healthneers

In situ Laser FEVAR



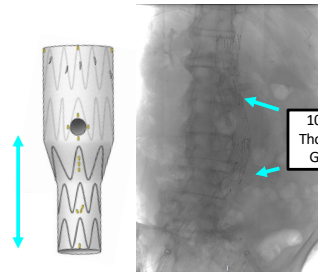
DiBartolomeo et al, JVS Cases Inn Tech 2022

Duration of Reno-visceral ischemia

- Ischaemic time (44 pts, 108 target arteries)
 - 22 pts (50 %) had ≥ 3 target vessels
- SMA (24 %) 7 (IQR 4 - 10) minutes
- Renal arteries (64%) 47 minutes
 - 2nd Renal fenestration 14 minutes
- Coeliac trunks (12 %) 48 (IQR 25, 94) minutes

Le Houérou et al, EIVS 2023

How to limit SMA ischemic time?



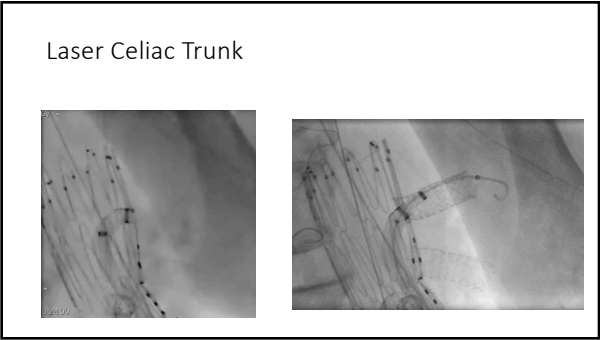
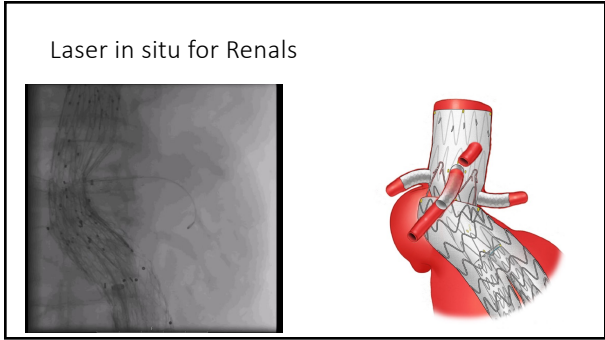
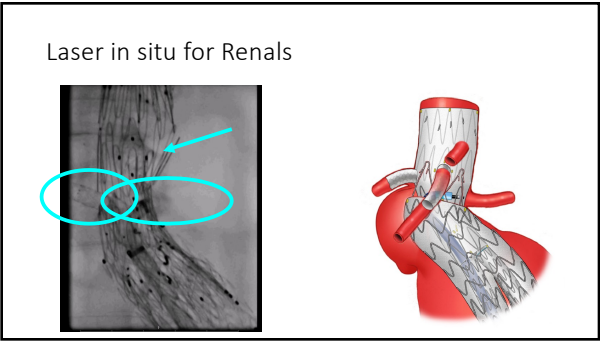
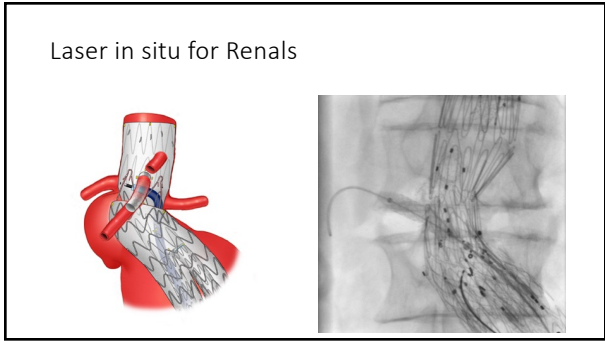
Specifications:

- 1 CMD-Fen
 - @ 12:00 o'clock
 - Preloaded if unilateral access
- Short length distally
 - Allows re-EVAR
 - Distal extension with a tube before the bifurcated

Berczeli et al, JEVT 2023

Technical steps

- Place FEVAR
- Bridge SMA
- Place bifurcated component
- (Extend contralateral iliac)
- Renal Laser in situ
- (Coeliac Laser in situ)



Why CMD fenestration for the SMA?

- Potentially reduces the mesenteric ischemia time
- Uses a reinforced fenestration for the most important target artery
- Radial strength (in vitro)
 - CMD fenestrations have higher radial strength
 - In situ higher > PMEG
- ISF technique was durable over a simulated 10-year period
 - But no proven long-term clinical follow-up as CDM fenestrations
- Tears in Aortic PTFE grafts @ 8 mm dilatation

Jayet et al, J Clin Med 2023
He et al, EJVES 2023
Grima et al, JEVT 2024

Experience

- 2 ruptured AAAs
 - 3 fenestrations
 - 2 Celiacs sacrificed
- 1 rapid expansion after EVAR + bilat iliac An (6.5 cm pseudoan + 4.5 cm)
 - 4 fenestrations + bilateral IBD

2 Clinical success + 1 death (20th POD)

Conclusion



Laser in situ of an endograft with a CMD-fenestration for SMA

- Uses the most proven type of fenestration for the most essential artery
- The short length enables acute FEVAR after EVAR
- Preloaded design can be done if there is only unilateral access

- Clinical results are limited
- Should be reserved to when Custom Made Devices are not available

