Indications And Advantages of Antegrade In Situ Fenestration For F/EVAR: How To Do It

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Disclosure

I have the following potential conflicts of interest to report:
Consulting for Affluent Medical

Background

Validity of Retrograde Laser fenestration

Panneton JVS 2013

Retrograde LSCA
Feasible
Effective option
Acute thoracic aortic pathology
Excellent midterm (2y) patency

Bench test

In situ Laser Fenestration Technique (IsLF)

Off Label procedure
Bailout solution
Emergent cases
Patients unfit to OR
Until to CMD device

Indications
LSCA retrograde fenestration / Arch Visceral arteries Antegrade Distal thoracic fenestration/ TEVAR Dissection Fl to TL

In situ repair TAA Technique

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**Heli-FX System Guide without endoanchors**

<table>
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<th>Nominal Length</th>
<th>Working Length</th>
<th>OD (mm)</th>
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**LFEVAR Technique steps:**

- Primary stenting of the arteries.
- Endovascular exclusion.
- Positioning of the steerable sheath.
- Laser fenestration.
- 0.014-inch wire advanced through the laser catheter.
- Bridging stent.

**LFEVAR Fusion imaging**

**SMA fenestration**
**Cutting balloon**
Progressive dilation

**Bridging covered stent / Flairing**

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**Left Renal Laser Fenestration**

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**Indications**

- Juxta para renal AAA
- TIA Endoleak
- TAAA

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**Outcomes 2015/2018**

- 29 patients with LIEVAR
- 66 fenestrations (2.25 per pt)
- 5% of Aortic Aneurysm treated in our center
- Median ischemic Time :
  - 12 min for SMA,
  - 48 min for left renal artery,
  - 50 min for right renal artery,
  - 125 min for the celiac trunk.
- Fenestration success rate 95% (63/66)
  - 1 CT impossible to catheterize
  - 1 conversion to chymney
Outcomes

- 30 days Mortality 0% (29 LfEVAR)
- 16% transitory dialysis
- No SCI, no mesenteric ischemia
- 1 case pneumonia
- FU 22 months
- 24% reoperations (7/29 pts)

Conclusions

- LfEVAR must not be used for elective cases
- In our strategy, the best option for urgent TAA is to use an off the shelf graft like the T-branch
- If a CMD graft is not available, LfEVAR will be our reference treatment.
- No brachial or axillary approach are needed for