What interventions can be done for failed SFA Stents:

Minimally invasive lesion and stent removal with long endarterectomy followed by PTFE lining: Another option before open surgery: technique and results

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Background

Non functional stents are more and more frequent:
- Instent restenosis and occluded stents
- Failed Multiple rebalooning (DEB)
- Failed Stent in stent (DES, covered stent)
- Crushed stents...

Quit and change for other options is common sense:
- Latest endovascular attempt has no more chance of patency
- Fem pop bypass is invasive and must be delayed the latest

Why you need to consider another option before surgery?
The Third way: stent removal

Change your minds
No obstinacy on Stents and postpone surgery

Stent removal

- Minimally invasive surgery (groin cutdown)
- Long OTW endarterectomy with stent removal
  - Volmar ring preparation
  - EVI retrograde OTW Endarterectomy
- PTFE lining OTW (Heparin-bonded Viabhan)

Stent removal and relining (endo femoral bypass)

1) OTW Retrograde Endarterectomy with EVI device + Volmar Ring
2) Lining the debulked SFA with PTFE graft (Heparin-bonded Viabhan)
Advantages

1) From Surgery:
   • Short hospitalization (2 Days)
   • Quick recovery and back to walk
   • No popliteal approach (no knee pain, no vein damage)
   • Return to initial situation in case of failure (Bypass)

2) From other endarterectomy devices
   • No risk of embolization (permanent backflow)
   • Retrograde endarterectomy OTW (no plaque eversion)

EVI European clinical study

- Pilot study in 1998: 27 pts as learning curve to assess safety & effectiveness
- European clinical study in 2000
  Prospective, multicentric (Germany, Belgium, France)
  Primary end point: primary patency at 1 & 2 years
  190 patients intend to treat
  32 excluded (unsuccessful recanalization, poor inflow or outflow)
  158 included (technical success) Fu 28M (Mean 13.1M)

Cumulative life table analysis Kaplan-Meyer

Comparison

1) Conventional bypass 77% 1y, 65% 2y
2) Percutaneous Atherectomy
   - Salvage study (Laird, J. 2012) Laser + Viabhan : 1Y Primary Patency : 48%
   - Other focal atherectomy : Jet stream, diamondback, silver hawk,.turbo hawk...
     High risk of distal embolization (up to 22%)
   - RCT: Poor quality evidence for increased patency
     (Cochrane Database 2014, Katsanos 2014)

3) Viabhan Lining (heparin-bonded)
   - Golchehr, JVS oct 2015: 1Y patency (I. 67% to 96.9%)
   - 3Y patency (I. 59%, II. 82%)
   - (SFA denovo Type C and D lesions TASC II without CFA involvement)

4) TE without lining
   - (Antegrade endarterectomy without GW)
   - F. Möll, D. Rosenthal, De Vries (REVAS trial) 3Y patency (I. 47%, II. 69%)

CONCLUSION

- Failed stents are more and more frequent
- Repeated endovascular approach have limits
- Surgery which is the final resort, must be postponed to the fullest
- Removal of stents OTW and Viabhan relining is a third and safe option to be known
- Combined Volmar ring and EVI atherotomy devices offer a safe alternative to remove ineffective stents with competitive results.