Is there a role for an Interwoven Nitinol Stent beyond the SFA?

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Disclosure

Speaker name: ............................................................

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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
Supera Helical Interwoven Nitinol Stents

(IDEV Technologies, now by Abbott)

Consists of 6 pairs of nitinol wires braided in a helical configuration
Offers strength and flexibility in treating vessels in the where rapid and frequent movement occurs with daily activities.
Comparison of femoropopliteal artery stents under axial and radial compression, axial tension, bending, and torsion deformations

Kaspars Maleckis, Paul Deegan, William Poulson, Cole Sievers, Anastasia Desyatova, Jason MacTaggart*, Alexey Kamenskiy*

Department of Surgery, University of Nebraska Medical Center, Omaha, NE, United States
Post-femoropopliteal vein bypass: stenosis in proximal & distal anastomoses
Video of angioplasty and Supera stent in distal anastomosis of bypass
Follow-up CT: Post- femoropopliteal vein bypass:
no more stenosis in proximal & distal anastomoses
Angioplasty and Stenting of Distal Anastomotic Stenosis of Femoropopliteal Bypass Graft Using Helical Interwoven Nitinol Stents

Yiu Che Chan 1  Stephen Cheng

Int J Angiol 2014;00:1–4.
Occluded Femoro-below-knee-popliteal graft (PTFE & St. Mary’s boot). Open thrombectomy and on-table thrombolysis.
Residual stenosis at distal anastomosis and also in the below-knee popliteal segment, which improved after angioplasty and Supera stent.
Video of angioplasty and Supera stent in iliac artery (Supera)
Calcified external iliac artery stent stenosis with balloon angioplasty Supera
Iliac is very tortuous, **needs careful and slow deployment to prevent elongation.**

Looks straight on AP, but tortuous on lateral
Exteral Iliac is very tortuous, needs careful and slow deployment to prevent elongation.
Right femoropopliteal PTFE bypass with distal right external iliac artery and common femoral artery endarterectomy
Video of hybrid common femoral pop bypass- and external iliac angioplasty and Supera
Distal Supera is below inguinal ligament

Post-op X-ray: Omnilink stents (right 7x59, left 7x39) (Abbott) and Supera stent right external iliac (6x40)
Video of Supera in Arteriovenous fistula

Important to note: Difficult to deploy & 7mm Supera biggest diameter
6mm Supera
Outer diameter 6.7mm

7mm Supera
Outer Diameter 7.7mm
Xrays of Supera stents in wrist AVF
Summary

• Apart of use in femoropopliteal arteries, Supera stents are **biomimetic** and can be used in
  – iliac arteries
  – Distal-external iliac arteries
  – Bypass conduit
  – Bypass anastomosis
  – Arteriovenous fistula
  – Biliary system

• Largest size Supera stent is 7mm with outer diameter of 7.7mm
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