TIPS technique using GORE VIATORR TIPS Endoprosthesis

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Disclosure

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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)

x I do not have any potential conflict of interest
Introduction

- Preinterventional work-up
- Imaging of the (target) portal vein
- Portal vein puncture
- VIATORR stent-graft placement
- Additional interventions
Preinterventional work-up

- Hepatic vessel patency
  - Portal vein
  - Hepatic artery
  - Hepatic veins
  - -> duplex ultrasound ; CT ; MRI
Venous access

- (right) internal jugular vein: US guidance

Venous access

- Pressure measurements
  - Proximal IVC
  - Wedged hepatic venous pressure

- (Transjugular liver biopsy)
Imaging of the (target) portal vein

- Ultrasound-guidance
- Fiducial markers (guide wire)
- CO₂ (Iodized) wedged venography
  - End-hole catheter
  - Occlusion balloon

- Maleux et al. J Vasc Intervent Radiol 2011
Portal vein puncture

- Right hepatic vein -> (proximal right) portal vein
VIATORR stent-graft placement

- 8 mm & 10 mm diameter
- 2 cm bare nitinol part
- Variable length e-PTFE-covered part (4 – 8 cm)
- Covered part: portal vein -> IVC confluence
- Calibrated pigtail catheter
VIATORR stent-graft placement
VIATORR stent-graft placement
VIATORR stent-graft placement
VIATORR stent-graft placement
Additional interventions

• Additional e-PTFE-covered stent-graft

• Coil-embolization of residual varices
Second VIATORR stent-graft
Second VIATORR stent-graft
Coil-embolization of residual varices
Coil-embolization of residual varices
Take home messages

- Target: proximal right (left) portal vein
- Diameter 10 mm
  - 8 mm balloon (refractory ascites)
  - 10 mm balloon (bleeding)
- Length:
  - Calibrated pigtail catheter
  - + 1 cm (IFU)
  - From the portal vein up to the IVC
Thank you for your attention

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