Connection of Celiac Artery to Branched Stent-Graft by Retrograde Access through SMA:

A Case Report

Burkhart Zipfel MD, PhD;
Andreas Gussmann MD, Jens Kühn MD

Helios Kliniken Berlin Buch, Bad Saarow
The case

- 62 year old woman
- TAAA Crawford V
  - 56 mm diameter
- Risk factors
  - Obesity (BMI 36)
  - Art. Hypertension
The plan

Zenith CMD:
- 2 branches
- 2 fenestrations
The challenge

CA origin 90° angulation
1st Procedure 18.04.2017
Implant the Graft – Stent the RA Fenestrations

SMA and CA branch left open for temporary sac perfusion
2nd Procedure 06.06.2017
Connect SMA and CA branch – right axillary approach
2nd Procedure 06.06.2017
Access to CA failed
3rd Procedure 11.08.2017
Connect CA branch – double right axillay approach

- Microcatheter through SMA
- Collateral to CA entered
- Hepato-duodenal artery
0.018” wire enters aorta through CA

Sheath to protect SMA

Wire snared through CA branch.

7 F Flexor sheath advanced into CA.
Advanta V12
8x59 mm

3rd Procedure 11.08.2017

Good inflow

Perforation of collateral
Injection through SMA demonstrates extent of perforation.

Balloon to control bleeding.
3rd Procedure 11.08.2017

Catheters in hepato-duodenal artery from both sides
Coiling of hepato-duodenal artery from both sides
The course

- Extubation on the table
- Hemodynamically stable
- Insignificant blood loss
  - Hb dropped 12.1 to 9.2 (g/l)
  - No transfusion
- Discharge POD 4
The CT 3 months later

No endoleak

CA branch perfused despite 90° angulation
Conclusion

• A running through wire of collateral mesenteric arteries may solve access problems to target arteries in branched TEVAR.
• However injury to these fragile collaterals is likely and it’s management has to be prepared in advance.
Thank you for your attention.
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