TEVAR with celiac trunk embolization to expand short distal landing zone

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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)

I do not have any potential conflict of interest
Case

- 47/M presented with an incidentally found saccular aneurysm in the descending thoracic aorta.
- The patient had a previous history of myocardial infarction (6YA).
- Echocardiography revealed apical inferior dyskinesia with an ejection fraction of 34%.
Saccular aneurysm related with PAU (penetrating atherosclerotic ulcer) at the thoracoabdominal junction of aorta
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To achieve a complete exclusion of the aneurysm, adequate proximal and distal landing zones are necessary for fixation and sealing.

Because of heart problem, Endovascular Tx. was preferred.
saccular aneurysm: 34 x 62 mm
11mm to the Celiac axis
25mm to the SMA

Limited distal landing zone for Stent graft
Our plan:

- To get an adequate distal landing zone:
  - deploy the stent graft just proximal to the SMA orifice

- To prevent type II endoleak from the celiac artery:
  - embolize the celiac artery trunk
Ischemic injury in the celiac territory?
Ischemic injury in the celiac territory?

- Because of the extensive collateral circulation between the CA and SMA, visceral ischemic symptoms seem to be uncommon after covering the CA with a stent graft.
Ischemic injury in the celiac territory?

Short segmental, precise embolization in the proximal celiac artery can keep collateral flow between common hepatic, splenic, left gastric arteries.
Celiac trunk embolization

- Embolic material?
  - Coil?
  - Vascular Plug !!!

very useful for short segmental precise embolization of large artery
The patient had an anatomic variation.

Aberrant origin of rt. hepatic artery from SMA.
Celiac trunk embolization with **Amplatzer vascular plug I (10mm)**
Celiac trunk embolization with Amplatzer vascular plug I (10mm)
30mmX8cm Zenith TX2 tubular stent graft
Because of reduced flow to the hepatic artery, we could see mild elevation of liver enzymes. However, liver enzymes were normalized after 1 week.
1M F/U CTA
Summary

- The endovascular aneurysm repair with a stent graft covering the CA may be an acceptable endovascular approach in treating selected TAA patients with a limited distal landing zone.

- Compared with coils, the vascular plug can be very useful for embolizing the CA trunk without compromising the communication of important branches.
Thank you for your attention!

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