Embolization of a large rapidly growing aortic pseudo-aneurysm not amenable to open or endovascular repair

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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
Case presentation

80 year old male, admitted for severe weight loss and asthenia of one month duration

PMH:

- Ischemic heart disease
- Severe aortic valve stenosis
- Adrenal insufficiency after M. tuberculosis infection 20 y ago.
Case presentation

Known to have an aortic false aneurysm of 1.5 cm that was diagnosed 8 years ago but was not investigated further.
CT scan coupled with PET

- 2 cm aortic False-aneurysm on the posterior wall of the aorta at the level of the SMA.
- Hypermetabolic para-aortic lymph nodes
- Vertebral body erosion adjacent to the false-aneurysm
• A lymph node CT-guided biopsy was scheduled but the material was not sufficient.
• Another biopsy was scheduled one week later.
• Biopsy was cancelled and the patient was transferred to the vascular division
• A decision to operate was taken due to an imminent risk of rupture
Operative options

• Open surgical repair
  – Patient unfit due to his cardiac comorbidities

• Fenestrated graft:
  – Not available

• EVAR with chimneys and periscopes
  – Infected area
  – Small aortic diameter
Operative options

• Coiling of the false aneurysm:
  – Aortic bare metal stent to contain the coils and prevent migration.
Operative steps

- Local anesthesia
- Percutaneous access using two Proglide devices and 14 Fr sheath on right groin
- 6 Fr access with 45 cm sheath
- The false-aneurysm cavity was accessed and the left 6Fr sheath parked into the sac.
- A 28 mm *100 mm bare self expanding aortic stent was deployed across the lesion (Jotec)
- Multiple coils were used to fill the
Post-op CT scan
Meanwhile…

- Serologies for HIV, toxoplasmosis, Lyme disease, brucellosis, cytomegalovirus and tuberculosis all came negative.
- Q fever serologies phase I were highly positive (IgG >5120) which confirmed a chronic infection with Coxiella burnetti.
- Patient was put on doxycycline and hydroxychloroquine and scheduled for a Ct scan 5 months later.
Discussion

• Coils and plugs have been used to seal false aneurysms specially at anastomotic sites in patients unfit for surgical repair.

  JVS 2002;4:811-814
  J ENDOVASC THER 2002;9:922–925

• This technique can be used only for saccular aneurysm with a diameter larger than its neck to avoid systemic migration of the coils and plugs.

• In case of a large neck, a bare metal stent act as a container of the embolic agents.
Conclusion

• Embolisation of a large aortic false aneurysm is feasible (on the short term)
• The use of a bare aortic stent avoids migration of coils in large necks.
Thank you