Primary stenting approach for acute total occlusion of abdominal aortic endograft

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Disclosure

Speaker name: Pablo Nuñez

I have the following potential conflicts of interest to report:

X I do not have any potential conflict of interest
Clinical Presentation

- 74 year-old male patient
- Hypertension
- Dyslipidemia
- Severe COPD/Home Oxygen
- Myocardial Infarction (2010 - PCI to LAD)
Clinical Presentation

- Abdominal aortic aneurysm (62 mm.)
- 11 months ago he underwent EVAR + coil embolization right IIA
- The patient was discharged from the hospital with no endoleak.
Follow-up @ 3 Mo

Angio-CT showed no endoleak and no increase in the aneurysm sac.
Clinical Presentation

- 11 months after EVAR
- Admitted to an emergency department with sudden pain in the lower back and both lower limbs after cardiac rehabilitation exercise.
- Physical examination revealed loss of bilateral femoral pulse but no paleness or cyanosis
Angio-CT revealed occlusion of the infrarenal abdominal aorta and bilateral iliac arteries with recanalization by collateral circulation to both common femoral arteries.
Therapeutic Strategy

- Urgent revascularization is mandatory

**OPEN SURGICAL REPAIR**

- Embolectomy +/- endograft replacement,
- Extra-anatomic bypass -> axillobifemoral.

**ENDOVASCULAR**

- Thrombolysis +/- stent
- Thrombectomy +/- stent
- Primary stenting?
Why we decided to do that?

- We perform a total of 110 EVAR cases in our Hospital, between January 2008 and December 2017.
- One case of ELO in a high risk patient.
- Primary stenting technique.

Immediate blood flow restoration can facilitate natural lysis of the clot and can also reduce distal embolization due to fragmentation of the clot.
Procedure

- Local anesthesia
- Bilateral percutaneous femoral access with ultrasound-guided (no palpable pulse)
- 7F sheaths into both common femoral artery
- Hydrophilics guidewires 0.035" × 260 cm (Radifocus®-Terumo) + 5F hydrophilic catheter.
- Aortography
Primary stenting

4 self-expanding nitinol stents (8 x 120 mm., 7 x 100 mm., 7 x 100 mm. and 7 x 60 mm. SMART stents, Cordis) were placed from the renal arteries to the right external iliac artery.

3 self-expanding nitinol stents (8 x 120 mm., 8 x 100 mm. and 7 x 120 mm. SMART stents, Cordis) were placed from the renal arteries to the left external iliac artery.
Post-dilation with kissing balloon with balloons up to 8 mm.
Control aortography showed complete recanalization and no sign of distal embolization.
The patient was discharged without any complication at 48 hours.

- Receiving aspirin and clopidogrel
- Palpable femoral, popliteal and pedal pulses.
Angio-CT shows correct stents placement and vessel patency
Follow-up @ 18 Mo

Angio-CT shows aneurysmal sac reduction
Follow up

1 Mo

18 Mo

Thrombus lysis and change of stent position
Endograft occlusion has been reported to have an incidence ranging from 1.1% to 7.1%. Typically, occurs unilaterally.

If occurs acutely in the bilateral limb or the main body of the endograft, its pathological condition may be similar to that of acute occlusion of the abdominal aorta, a life-threatening disease associated with high morbidity and mortality.

Endovascular treatment with primary stenting technique may be considered as a therapeutic option for total occlusion of abdominal aortic endograft.

A simple procedure, with low complication rate and good mid-term patency.
Thank you for your attention