TREATMENT OF A COMPLEX DISSECTING AORTIC ANEURYSM: TARGETING THE INTIMAL FENESTRATIONS

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Disclosures

We have no potential conflict of interests
We describe a strategy for achieving total endovascular repair of a complex dissecting aortic aneurysm by treating solely the fenestrations connecting the false and true lumens, using entry and re-entry analysis.
Advantages:
- Treatment simplicity
- Less aorta surface coverage.
- Minimize the risk of paraplegia.
- Spare the need of fenestrated grafts.
Case presentation:

71y male
TYPE A aortic dissection
2012 S/P ascending aorta and aortic arch replacement with a dacron graft

A follow up CTA:
propagation of the dissection with
A large dissecting aneurysms:
thorax (78mm)
abdomen (90mm).
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Fenestrations analysis: Mapping the entry and re-entry openings

1. Descending thoracic aorta
2. Left renal artery
3. Aortic bifurcation
4. Rt Ext iliac artery
The operation steps:
Via the left brachial artery: Lt renal artery covered by stent grafts
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Via the left femoral artery: Thoracic proximal fenestration was covered with a stent graft.
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Via the left femoral artery. An Aorto-uni iliac stent graft covering the fenestration at the aortic bifurcation.
Via the left femoral artery, an Aorto-uniliac stent graft covering the fenestration at the aortic bifurcation.
Via the right femoral: Occluder in the right common iliac preventing retrograde flow into the aortic false lumen.
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Stent graft from the right external to internal iliac artery, preserving perfusion of the right internal iliac artery.
Cross femoral bypass: Lt to Rt
A completion aortogram demonstrated flow only in the true lumen, with both kidneys perfused.

The patient was discharged in a good condition on POD 7 with no neurological deficits.
5 months follow up CTA:

- All of the tears are sealed
- A new tear in the distal part of the thoracal stent, with flow to the false lumen
Second operation:

extension of the thoracic coverage
POD 7 CTA:

- No flow in the false lumen
- Visceral vessels were left bare
Conclusion:

when treating solely the intimal fenestrations, the aneurysmatic false lumen can be elegantly excluded
Conclusion:

The key for solving these complex problems is a thorough CT processing, mapping all of the entry and re-entry fenestrations.

We are still left with a problem of sizing
Thank you
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