Surveillance protocol and reinterventions after F/B/EVAR

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Surveillance and reinterventions after F/B/EVAR

- Increasing use of F/B/EVAR for thoracoabdominal and pararenal aortic aneurysms
- Complex procedures with the assembly of multiple components
- Risk of reinterventions

Proposed classification of endoleaks after F/B/EVAR
(by permission of Mayo Foundation for Medical Education and Research)


Reintervention rate 3.3 – 25%

“S. Giovanni – Addolorata” experience
Jan 2016- Oct 2018

Fenestrated and branched EVAR
N=29

- TAAA I 3
- TAAA II 8
- TAAA III 4
- TAAA IV 7
- Pararenal/juxtarenal 7

Disclosure
Nothing to disclose regarding this topic
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“S. Giovanni – Addolorata” experience
Jan 2016-Oct 2018
N 29  Mean F-U 9m (1-32)

30-day Mortality
elective 2/26 (7.7 %)
urgent* 2/3 (66.6 %)

1 2nd p.o.d., colonic ischemia
1 7th p.o.d., massive stroke
1* 14th p.o.d., paraplegia, MOF
1* 20th p.o.d., paraplegia, MOF

Surveillance protocol
CT-scan prior to discharge
CT-scan @3m
CT-scan @12m and yearly thereafter
NO ROOM FOR DUPLEX SCAN

Spinal cord ischemia
elective 2/26 (7.7 %)
urgent* 2/3 (66.6 %)

2 paraparesis, recovered
2* paraplegia

Reinterventions 5/25 (20.0 %)
1 Type Ia EI, bridging stent relining, fixed
2 Type Iic EI, bridging stent relining, fixed
2 Type III EI, embolization, fixed

Technical success 100%, NO complications, NO mortality

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- 66 yrs old man
- 2005: open repair of descending TAA
- 2009: surgical debranching of CT + SMA (single conduit from infrarenal aorta) and left renal artery (from left iliac artery) followed by TEVAR for a type III TAA
- 2016: distal extension with a tube fenestrated stent-graft (1 fen for the common conduit to CT and SMA + 1 fen for the right renal artery) for a type Ia endoleak
- 2018: type II endoleak due to a left gastric artery arising from the sac, with aneurysm growth of 1.5cm
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- 76 yrs old man
- 2008: surgical resection of AAA + right iliac aneurysm with an A51 graft interposition
- 2016: B-EVAR with T-branch for a recurrent type IV TAAA
- 2017: type IIIc endoleak at the level of the left renal branch + aneurysm of the left common iliac artery
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Exclusion of left iliac aneurysm using a branched device.

Total relining of left renal branch.

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Conclusions

- Rates of type Ia endoleak after F/B/EVAR are very low when repair is planned with an adequate proximal sealing zone.
- Much of reinterventions are due to type II and III endoleaks, that can be treated by embolization and stent relining.
- Strict CT-scan follow-up is mandatory.

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