Branch Coil Embolization During EVAR Is Worthwhile And Decreases Type 2 Endoleaks: When Should It Be Done?

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Disclosure

Speaker name: Dominique Fabre.
I do not have any potential conflict of interest

Purpose

- Open repair for AAA = two step procedure
- First step = Collateral branch ligation
- During standard EVAR No Collateral arteries ligation

Background

Important level of AAA enlargement = 41%
Due to Endoleak

The question in 2015 is not should we prevent endoleak.

Schanzer Circulation 2011

When should it be done?

- The first question is when: before, during or after EVAR?
- The second question is: Which patients are at risk for type II Endoleak?

When should it be done?

- Before EVAR: Selective Embolization Selected patients
- During EVAR: Branch Or Aneurysm sac Embolization
- After EVAR: Aneurysm sac enlargement Many techniques Embolization
Embolization during EVAR

- Aneurysm sac Embolization
- Coils and Glue
- Others
- Thrombogenic products

Results of embolization during EVAR

- Fibrin Glue
- Gelatin Sponge

Prevention of lumbar artery endoleaks following EVAR with the selective use of absorbable gelatin sponge.

- Zanchetta. JET 2007
- S. R. Walker. BJS 2002

- T2EL after EVAR during early and midterm follow-up

No durable results

Retrospective studies

Fibrin glue during EVAR

- T2EL 2.2%
- upon 180 pts
- No selected patients after EVAR during early and midterm follow-up

Ronsivalle. JET 2010

Coil and glue during EVAR

- T2EL upon 79 pts after EVAR during early and midterm follow-up

Piazza. JVS 2013

Retrospective study during EVAR

- Coil and glue
- Only Coils At risk patients
- Level of T2EL = 1.2%
- Upon 83 patients

Piazza. JVS 2013

Fabre. JVS 2015

REINTERVENTIONS after EVAR during early and midterm follow-up

Level of T2EL = 1.2%
Upon 83 patients

Fabre. JVS 2015
The length of your coiling is important

Prospective randomized study
Coil Glue during EVAR

Level of Type II Endoleak

Which patients are at risk for type II Endoleak?

Prospective randomized study
Coil Glue during EVAR

REINTERVENTIONS after EVAR during early and midterm follow-up in patients considered at risk.

Which patients are at risk for type II Endoleak?

- 40% at implant
- 50% resolve spontaneously
- 10% Reinterventions

Zhou. JVS 2014
At risk patients!

Risk factors for persistent T2EL
Indications for embolization

**Major**
- Patency of the IMA
  *Arko. JET 2001*
- IMA with a luminal diameter at the origin ≥3 mm
  *Arko. JET 2001*
- Patency of two pairs of lumbar arteries
  *Bonvini. JET 2003*

**Minor**
- Aneurysm length
- Aneurysm volume
- No mural thrombus
  *Gallagher. JET 2012*
- Sac Volume
  *Piazza. JVS 2013*

Conclusion

Embolization of the aneurysm sac during EVAR is clinically effective and safe in preventing T2EL, without any complications.

This technique reliably achieves complete thrombosis of the aneurysm sac.

This technic should be limited to selected at risk patients and should not be systematic.

Compared to other strategies, the first time is the best time.

Merci!