There Is No Evidence That Treating Type 2 Endoleaks Is Beneficial And Such Treatment May Be Harmful

Hence JM Verhagen, MD PhD
Professor and Chief of Vascular Surgery
Erasmus University Medical Center
Rotterdam, The Netherlands

Disclosures

- Medtronic
- WL Gore
- Abbott
- Endologix
- Arsenal AAA

I have deep respect for Jean Pierre Becquemin

Type II endoleaks after endovascular repair of abdominal aortic aneurysm are not always a benign condition

- T2 EL had no influence on survival
- T2 EL was no predictor of rupture, even in presence of sac growth
- No ruptures in the unsuccessfully treated patients
- Combination of T2 EL with T1 or T3 EL was associated with more re-interventions
• It’s a classic example of “self fulfilling prophecy”:
• Type II EL are dangerous: they need treatment
• Conclusion: type II EL is a risk factor for secondary interventions.

Obviously, a very confused mind

Today’s debate

• Is a type 2 EL dangerous, is treatment needed?
• Is treatment effective?
• Does treatment do more good than harm?

Type 2 EL after EVAR FACTS

• Nobody knows the difference between a Type 2 endoleak in a
  • Shrinking aneurysm
  • Stable aneurysm
  • Growing aneurysm

Type 2 EL after EVAR FACTS

• Can’t be that relevant as EVAR for ruptures works really well although almost all patients
  – Have patent lumbars
  – Have no intact sac to tamponade the back-bleeding
Let’s look at level 1 evidence

Systematic review on 21.744 patients

- 9 patients ruptured possibly due to a type II endoleak

0.7% of all patients with a type II endoleak

0.04% of all patients........

About half of these ruptures occurred in the absence of sac expansion.....

Small detail:

Non of the panel members have ever proven that treating type 2 ELs changes anything in the clinical outcome

Nor that type 2 EL treatment does more good than harm!

Systematic review and meta-analysis

Treatment Results of Persistent Type 2 Endoleaks in the presence of AAA sac growth

Selection Procedure

- Only 27 patients showed decrease in sac size after 2 Y
- NO successfully treated patients described with FU > 2 Y
- 27 patients receiving successful treatment?
Adverse events

- Adverse events reported
  - Serious complication: 3.0%
  - Secondary re-intervention: 16.2%
  - Conversion: 5.1%
  - Rupture: 1.0%
  - Intervention-related mortality: 0.5%

Remember, these numbers far exceed the risk of rupture due to type 2 EL!

And Jean Pierre knows this

Type 2 EL is NOT the cause of growth

- Type 2 EL should possibly be named
  "Sentinel endoleak"
  - It guide you to a potential problem, but treating it does NOT cure the patient

Type 2 endoleaks are NOT dangerous and should NOT be treated

Look harder for the true cause of growth!

Conclusion

- The firm believe of many
- The official guideline
  To treat type 2 EL in the presence of aneurysm growth is based on .................
  27 patients
Really?

But hey, who cares

Jean Pierre can fix these type 2s really well!