Partial Conversion With Endograft Salvage For Endotension And Persistent Type II Endoleak After EVAR: When And How To Use This Simpler Way
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EVAR probably represent the treatment of choice for most patients with AAA.

Despite the improvements in operator endovascular skills and grafts material there is still some concerns over late complications and intervention associated to these procedures (reported in up to 35% of the patients)(1).

This is why a strict follow up of these procedures is still necessary.

The most common complication is type II endoleak (EL) which has an incidence of 10-25% (2).

The need for treatment in these patients is controversial but the recently published “Clinical Practice Guidelines of the European Society for Vascular Surgery” stated that treatment is recommended for type II EL with an increase sac diameter over 10 mm (3).

Many techniques for occluding the feeding vessel are described: trans-arterial, trans-lumbar, trans-caval, trans-limb embolization and laparoscopic clipping.

Nevertheless technical success for these procedures ranges from 20 to 78% and sometimes the aneurysm continue to enlarge (4)

Open conversion is advocated in these cases but is associated to a high mortality/morbidity risk, which can reach 67% (5). A less invasive alternative is partial conversion.

Between January 2001 and January 2013 1223 EVAR procedures were performed in our centre; 23 patients were treated by partial conversion (4 from other centres). Mean age of the treated patients was 76.1 years (min 65 – max 88). Mean interval between EVAR and conversion was 74 mths. The reason for intervention was endotension in 10 cases, persistent type II EL in 10 and associated type I and II EL in 3. All the patients with type II EL were first treated with some kind of embolization. In one case with associate type I and II EL a proximal cuff was first used to fix the proximal neck. We were able to preserve the graftin all the case.

At the beginning we choose the median laparotomy, but from December 2007 we preferred a less aggressive retroperitoneal approach when feasible.

Once the infrarenal aorta was prepared, we performed a banding and reshaping of the neck with a Teflon band and consolidated the graft to the aortic neck with 4/5 stitches through the Teflon, the aortic wall and the endograft. The iliac arteries were not dissected or exposed.

After the proximal neck was secured, the sac was opened longitudinally and the thrombus and/or igromas removed.
We then sutured the feeding vessels. The sac was then sutured leaving some fenestrations to avoid repressurization with consequent risk of expansion and rupture.

We put one drenage in the sac and another in the retroperitoneal space.

We had one cardiac death in a patient with type I & II EL, one intraoperative hemorrhage and one postoperative hemorrhage surgically treated.

Mean follow-up was 38.8 mths (min 2 - max 72) During follow-up 3 patient died: 2 for cardiac reasons and one for a rupture ATA. One distal type I EL and one type III EL were treated.

In our experience the technique is feasible with good result. Certainly the aggressiveness of this operation is lower when compared to complete conversion because aortic clamping is not needed, procedural time is short (avoid graft explantation and 2/3 anastomosis) and in absence of complications is associated to minimal blood loss.

References: