Parallel Grafts To Revascularize Critical IMAs And Ectopic Renal Arteries When They Must Be Preserved: How To Do It

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Use of chimney grafts

Creation of a new sufficient neck in case of aneurysms with short or absent sealing zone

Novel indications

I. Critical inferior mesenteric artery (IMA) in case of AAA patient with bilateral occlusion of the hypogastric arteries

Preservation of IMA by chimney grafts

Donas KP, Torsello G et al, JEVT 2014

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Novel indications

II. Clinically relevant accessory renal arteries with diameter of > 4mm, perfusion of >30% kidney parenchyma in AAA patients

Management?

• Coverage of ARAs and EVAR
• Renal infarction post-operatively

2-year follow up with native CTA

Kidney infarction > Kidney atrophy with significant increase of Creatinine and aggravation of hypertension

Preservation of Accessory Renal Artery

Münster experience (2012-2015)

9 AAA patients treated by EVAR and placement of parallel grafts in ARAs

Patency of 8/9 chimney grafts (FU: 13.8 months)
1 early occlusion > Significant renal function impairment at 12 months with aggravation of aHT and increase of Crea
Improvement of one CKD stage: n=1
No changes of the CKD stage: n=7
In summary

- Use of chimney grafts may be also beneficial to preserve the flow of IMAs or ARAs for AAA patients planned for EVAR

- Abu Bake, Torsello G et al, JEVT 2015 in press