Value And Limitations Of EVAR For Inflammatory AAAs And Other AAAs Of Rare Etiologies

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No disclosure
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Causes of aortitis
Inflammatory aortitis
Large-vessel vasculitis
Giant cell arteritis
Takayasu’s arteritis
Systemic lupus erythematosus, rheumatoid arthritis, HLA-B27-associated spondylarthropathies

Other vasculitides: ANCA-associated vasculitides, Behcet disease, relapsing polychondritis, Cogan syndrome, Sarcoidosis

Other: isolated idiopathic aortitis, inflammatory aortic aneurysm, chronic peri-aortitis (e.g., retroperitoneal fibrosis), infectious aortitis, Bacterial, Syphilitic

Other: mycobacterial, fungal
ANCA, anti-neutrophil cytoplasmic antibody.

Behcet’s Disease

At 30%-50% of cases post-op pseudo-aneurysms occur at the anastomotic site. It is the major problem after repair.
EVAR seems to provoke less wall stress of a cytokine release and inflammatory response.
Immunsuppressive and anti-inflammatory medication need to prevent recurrent aneurysm after stent implantation.

Case: 45 y, F, BD, 3 open surgery, r-pseudoaneurysm, EVAR (tubular extension)

Case: 50 y, F, BD, Juxta-renal saccular aneurysm at the level of visceral arteries
By-passes of CT, SMA and bilateral renal arteries and intraoperative EVAR
F-U re-intervention L renal artery occlusion, distal endoleak, distal aortic cuff extension
Post-op PET-CT(+)

Case: 35 y, F, Pseudoaneurysm at distal Cover stent, re-intervention; EVAR (AUI-Contralateral occluder), Fem-fem by-pass

By-passes of CT, SMA and bilateral renal arteries and intraoperative EVAR
F-U re-intervention L renal artery occlusion, distal endoleak, distal aortic cuff extension
Post-op PET-CT(+)

Successful Open Surgery for Recurrent Pseudo-aneurysm after Endovascular Aneurysm Repair in a Patient with Behcet’s Disease

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The vasculitis involving the vaso vasorum of the aorta leads to aneurysm formation. Triad of antiphospholipid antibodies, chronic steroid use and cystic medial degeneration (CMD) associated with SLE may predispose to premature atherosclerosis.

History of hypertension, associated AAA and prolonged steroid medication accelerate atherosclerosis disease pattern.

Aortic dissection should be considered in young patients having sharp chest, back or abdominal pain.

**Takayasu arteritis**

The pathology is diffuse, progressive, and relapsing in nature, and young patients have greater longevity.

3 parameters indicate timing of open or EVAR:

- the location,
- extent of the aneurysmal lesions,
- degree of the inflammation,

Matsumura et al, 32% of patients affected by TA described aneurysms.


Gürler F1, Cantademir M, Özkah E, Arısoy N, Numan F

Spontaneous dissection during EVAR procedure which was treated via bare stent

Post-op suture failure twice at anastomosis of the fem-fem by-passes.

Case: 64y, M, SLA. During f-u and monitoring had ulcerated plaque at AA.

Endovascular Aneurysm Repair (EVAR) of an Infrarenal Abdominal Aortic Aneurysm (AAA) in a Young Patient with Systemic Lupus Erythematosus (SLE)


Gürler F1, Cantademir M, Özkah E, Arısoy N, Numan F

Multiple endovascular stent-graft implantations in a patient with aortic thoracic and abdominal aneurysms due Takayasu arteritis! Boosta-Abadía • A. F. Echeverri • J. P. Carbonell • C. A. Canas

Case: 56y, M, TA, r-TAAA. TEVAR. F-u; Proximal saccular aneurysm. Refused to have re-intervention. Ruptured and died.

Case: 60y M, rheumatoid arthritis, AAA was monitoring having thick thrombosis, EVAR at 65mm diameter.

Vascular and Endovascular Surgery 47(2) 135-137, 2012
Endovascular Aneurysm Repair of Tuberculous Mycotic Abdominal Aortic Aneurysm on a Patient With Renal Transplant: Ganesh Kukan, MD1, S. Abisi, MD1, S. N. Chandrasekar, MD1, and S. T. MacSweeney, MD1

Case: 66y M, active TB, symptomatic AAA, EVAR, infected graft.

Infected graft removed. Axillary-femoral by-pass performed.

Limitations
Pseudoaneurysm; Behcet’s Disease (due to wall stress) and at suture (by-pass, AUI) and arteriotomy sites.
Spontaneous dissection; due to severe atherosclerosis (SLE)
Suture rupture; SLE
Re-interventions: Rapid growth of the native aneurysm itself after EVAR (Behcet’s Disease, Takayasu Disease, SLE)
Severe stenosis of iliac arteries (SLE, TB)

Conclusion
EVAR treatment of inflammatory diseases is an effective and life saving procedure but also have some limitations and complications.
Monitoring closely is mandatory during life time due to the nature of these diseases.