Treatment of bilateral common iliac artery aneurysm and left internal iliac artery aneurysm with 360 degrees tortuosity using bifurcated iliac stent graft, complicated by aortic perforation and salvaged with delivery of thoracic aortic stent graft, femoral – femoral bypass and left external to internal iliac stent graft

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Financial Disclosures

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Bilateral Iliac Aneurysms

• 75 year old male initially presenting with idiopathic thrombocytopenia

• Co-morbidities
  – Pulmonary fibrosis
  – Coronary artery disease, myocardial infarction
  – Atrial fibrillation, AICD/pacemaker

• Abdominal ultrasound done to assess spleen
Aorta: 25 mm
Right CIA: 5.5 cm
Left CIA: 3.5 cm
Left IIA: 2.9 cm

Right renal: accessory
30 degree RAO

30 degree LPO
75 degree LAO

30 degree RPO
Operative Plan

Primary objective: right common iliac
Secondary objectives: left common iliac, left internal iliac

Ideal plan: bilateral Gore iliac branch graft
  • seal to aorta with Excluder bifurcated aortic endograft
  • seal to proximal common iliac with thoracic stent grafts

Concerns:
  • tortuosity precluding passage of devices
  • preservation of pelvic flow

Bilateral femoral access, Left proximal brachial access
  • establish left axillary – femoral floss

Backup plans:
  • staged repair
  • coil and cover left internal iliac artery
Time Out

Primary objective: right common iliac
Secondary objectives: left common iliac, left internal iliac

Ideal plan: bilateral Gore iliac branch graft
  • seal to aorta with Excluder bifurcated aortic endograft
  • seal to proximal common iliac with thoracic stent grafts

Concerns:
  • tortuosity precluding passage of devices
  • preservation of pelvic flow

Bilateral femoral access, Left proximal brachial access
  • establish left axillary – femoral floss

Backup plans:
  • staged repair
  • coil and cover left internal iliac artery
Operative Plan 2.0

Primary objective: re-establish flow to the left leg
Secondary objectives: left common iliac, left internal iliac

Ideal plan: femoral – femoral bypass graft
  • left external to left internal iliac stent graft

Concerns:
  • tortuosity precluding passage of devices
  • pressurizing blind end left common iliac artery aneurysm

Backup plans:
  • staged repair
  • embolize left internal iliac artery, plug left external iliac artery
9 month follow-up

Clinically:
- Doing well
- No pains
- Palpable pedal pulses bilateral
- Ambulating

Anatomically:
- right CIA 4.7 cm (5.5 cm)
- left CIA 3.2 cm (3.5 cm)
- left IIA 2.9 cm (2.9 cm)
- no endoleaks
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