Experiences of simultaneous I-graft placement & sac embolization for treating saccular aortic aneurysm

Ki-Young Ko, M.D.

Department of radiology
Asan Medical Center, Univ. of Ulsan college of Medicine,
Seoul, KOREA
Disclosure

• I have the following potential conflicts of interest to report:
  □ Consulting
  □ Employment in industry
  □ Stockholder of a healthcare company
  □ Owner of a healthcare company
  □ Other(s)
  ■ I do not have any potential conflict of interest
Introduction

- Endoleak (type Ia or II) is not uncommon following conventional bifurcated or I-graft EVAR
- Need additional SG placement or short-term F/U
Purpose

- To demonstrate the efficacy of simultaneous I-graft placement and sac embolization for treating saccular aortic aneurysm.
Patients & Methods

• 6 adults since Jul. 2015
• Abdominal (n=5) or thoracic (n=1) aortic saccular (pseudo)aneurysms
• Method
  – Bilateral CFA access
  – 2.0-2.2 microcatheter placement in aneurysm
  – I-graft placement & molding ballooning
  – Post-stenting aortogram
  – Embolization of the aneurysm via a microcatheter
    • Glue (1-2-4 ratio) &/or coils
  – Completion aortogram
M/71, Infrarenal aortic saccular aneurysm

Emb. w/ coil & glue (1:2)
1 mo F/U
F/72, Infrarenal aortic saccular pseudoaneurysm
Sac emb. with 2 interlock coils & glue (1:3)
M/45, Remaining dissecting aneurysm. 
s/p Open I-graft interposition & SMA bypass for ruptured suprarenal AAA 8 mo. ago

Emb. w/ glue (1:2)
M/46, Infrarenal aortic saccular aneurysm. s/p LDLT 6 years ago
interlock coils x6 & glue (1:2)
M/55, ESRD, Thoracic aortic saccular aneurysm

Glue emb. (1:3) 6 mo. F/U
Outcomes

• No immediate complications
• No remaining endoleak on completion aortogram & F/U CTs
Previous report regarding AAA sac embolization during EVAR

- **Naki M. J Vasc Interv Radiol 2016**
  - Prophylactic intraoperative sac embolization with glue, lipiodol & ethanol (NLE) during proximal neck aortic balloon occlusion
  - Safe & feasible and may reduce endoleaks and prevent sac expansion after EVAR in patients with unfavorable anatomic factors.
Previous report regarding AAA sac embolization during EVAR

- Significantly low incidence of type II endoleak following sac embolization during EVAR

Piazza M. (J Vasc Surg 2016)

Mascoli C. (Eur J Vasc Endovasc Surg 2016)

Group A (n=55): standard EVAR
Group B (n=52): EVAR with intraop sac emb.
Group C (n=10): low risk for endoleak

Group A (n=26): EVAR with sac emb.
Group B (n=44): standard EVAR
Take home message

• Simultaneous aneurysm sac embolization with I-graft EVAR may be a safe and valuable method to manage on-going endoleaks or prevent future possible endoleaks.
Thank you for your attention
Experiences of simultaneous I-graft placement & sac embolization for treating saccular aortic aneurysm

Ki-Young Ko, M.D.

Department of radiology
Asan Medical Center, Univ. of Ulsan college of Medicine,
Seoul, KOREA