When Ch-EVAR, when F-EVAR?

Konstantinos P. Donas, MD

Department of Vascular Surgery
St. Franziskus Hospital Münster, Germany
Disclosure

Speaker name: Konstantinos Donas

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company

X Other(s)

I do not have any potential conflict of interest
Juxtarenal aneurysm
Juxtarenal aneurysm 5.9 cm

81 years old
High-risk OR

Infrarenal neck: 5mm
Length between RRA-LRA: 10mm
Bilateral renal artery stenosis
Total endovascular treatment options

• Chimney endovascular technique?

• Fenestrated endografting?
Why Chimney?

1. Anatomical characteristics

- JAAA without involvement of RRA
- Sealing between 15mm single Chimney and left CIA
- Severe elongation of left CIA
Why Chimney?

2. Age >80 y

3. Costs
Mortality at 3 years 27.3%
Why Chimney?

16,000 Euro/patient difference
Devices selection

Endurant

Advanta V12
The PROTAGORAS study to evaluate the performance of the Endurant stent graft for patients with pararenal pathologic processes treated by the chimney/snorkel endovascular technique

Konstantinos P. Donas, MD, Giovanni B. Torsello, MD, Gianluca Piccoli, MD, Georgios A. Pitoulias, MD, Giovanni Federico Torsello, MD, Theodosios Bisdas, MD, Martin Austermann, MD and Daniele Gasparini, MD, Münster, Germany; Udine, Italy; and Thessaloniki, Greece

Objective: The chimney/snorkel endovascular aortic repair (ch-EVAR) is gaining ever-greater acceptance in the treatment of pararenal pathologic processes. However, the published experience includes mainly short-term clinical results with combinations of several above methods. The main objective of this study was the midterm evaluation of the Endurant stent graft abdominal device for ch-EVAR.

Methods: Between January 2008 and January 2016, prospectively collected data of high-risk patients with pararenal pathologic processes who underwent ch-EVAR with placement of the Endurant abdominal device were analyzed. The chimney graft intended for use was a balloon-expandable covered stent. Main outcome measures were aneurysm sac regression and chimney graft patency.

Results: A total of 187 snorkel/chimney grafts were successfully placed in 128 patients (mean age, 76.6 years). The technical success was 100%. The mean preoperative proximal neck length and aneurysm size were 4.7 mm and 64.8 mm (range, 48-135 mm), respectively. The postoperative new neck length after use of chimney grafts was 18.7 ± 6.3 mm. The mean aneurysm sac decreased significantly (60.8 mm; 95% confidence interval, 2.036-7.084; P = .001) after a mean radiologic follow up of 24.6 ± 17.4 months. Thirty-day mortality and midterm mortality were 0.8% and 17.2%, respectively. Two patients (1.6%) with single chimneys presented with late new onset of type Ia endoleak and underwent additional tube and multiple chimney placement. Primary chimney graft patency was 95.7%. Freedom from chimney graft-related reinterventions was 93.1%.

Conclusions: Standard use of the Endurant abdominal device for ch-EVAR in >120 patients is associated with high technical success, significant aneurysm sac regression, and low incidence of secondary procedures after 2-year radiologic follow-up. These results will give significant impetus to device selection, facilitating early explantation. J Vasc Surg 2015; 61:1-7.)
Case

5-year CT FU
Conclusion

- **Chimney technique** is the preferrable therapeutic option in JAAA with involvement of 1-2 vessels, hostile iliac arteries and for patients > 80 years old.

- **5-year** radiological imaging confirms long-term durability.