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estimates of survival at 1, 3 and 5-years were 85.8%, 81.4% and 69.7%. Two reinterventions for endoleak were required and no migration or late aneurysm related mortality was recorded.

**Conclusions:** The incidence of stroke is acceptable after both total and partial arch debranching. Total debranching is an important predictor for mortality. Retrograde dissection may be infrequent complication with careful arch approach. After the perioperative interval, debranching is a safe and durable procedure up to 5 years.

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## **SS**7.

### Eligiblity for Endovascular Repair of Short Neck Abdominal Aortic Aneurysms

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**Objectives:** Using the CHAP database of nearly 10,000 patients nationwide, we examined eligibility for EVAR in patients with a short neck AAA (snAAA), where the neck length < 10 mm, and identified the anatomic parameters driving endograft (EVG) ineligibility.

Methods: Preoperative CT scans from eleven US clinical sites were prospectively entered into a database from 7/96 to 11/12. A blinded third-party, M2S, recorded standardized measurements from the 3D reconstructions. Two currently marketed EVG in the US are labeled to treat snAAA, with neck angulation  $\leq$ 45 deg and neck lengths  $\geq$ 4 mm (Cook Fenestrated) and >7 mm (Trivascular Ovation). The EVAR criteria were analyzed in 2245 men (M) and 1079 women (W) with snAAA.

**Results:** Of the 9848 AAAs, 3324 have snAAA (34%). Even if iliac and access criteria are excluded, EVAR eligibility for snAAA is at most 45%. In snAAA >5 cm diameter, neck angulation is 48 deg for women and 37 deg for men (P < .01). Women are more likely to have neck length < 4 mm and neck angulation > 45 deg (risk ratio is 90). Only 6% of patients are eligible for both EVG. Larger AAAs are not less likely to be eligible for fenestrated EVAR (Table; P = NS).

**Conclusions:** One-third of AAAs have a short neck, and less than half of these are eligible for current EVG, even with a fenestrated option. Neck angulation and length continue to challenge EVAR eligibility, especially for women. Eligibility for EVAR does not lessen as aneurysms enlarge, so there is no indication for early repair.

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## VS2.

## Video Presentation

# Percutaneous Endovascular Repair of Aortoiliac Aneurysm Using Iliac Branch Device

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**Background:** Exclusion of one or both internal iliac arteries (IIA) during endovascular aortic aneurysm repair (EVAR) has been associated with a predictable rate of pelvic ischemic complications. We present the preoperative planning and technique of implantation of Iliac Branch Device (IBD, Cook Inc., Brisbane, Australia) in a patient with bilateral common iliac artery (CIA) aneurysms using total percutaneous approach.

**Technical Description:** Computed tomography angiography (CTA) was used to determine measurements

Table. Eligibility for two marketed EVGs excluding iliac and access criteria; median (10th-90th percentile) values of anatomic parameters

	snAAA < 5 cm		$snAAA \ge 5 cm$		$snAAA > 5.5 \ cm$		snAAA > 6.5 cm	
	M (512)	W (324)	M (1733)	W (755)	M (1152)	W (437)	M (465)	W (154)
Cook fenestrated, % Trivascular ovation, %	44 24	44 10	42 16	45 7	45 14	45	45 18	43
Neck length, mm Neck angulation, deg	6 (3-9) 31 (16-55)	5 (2-9) 38 (18-63)	6 (2-9) 37 (18-61)	5 (2-9) 48 (25-74)	6 (2 9) 39 (19 64)	5 (2-9) 51 (28-77)	5 (2 9) 43 (20 67)	4 (1-8) 57 (32-81)
Neck diameter, mm	24 (26-35)	23 (18-34)	25 (20-97)	24 (19-37)	25 (21 38)	24 (19-39)	26 (21 41)	24 (19-42)