Graft Patency

At Risk				
FNA	84	56	28	18
HNA	142	88	50	36
Percent FNA	100%	99%	99%	99%
HNA	100%	97%	92%	90%
SE FNA		1.3%	1.3%	1.3%
HNA		1.6%	3.2%	3.6%

Freedom for Late Intervention
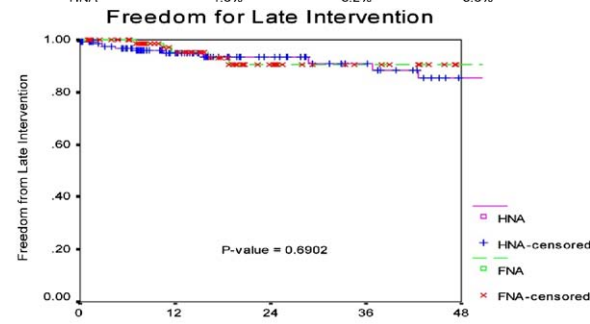
At Risk					
FNA	84	56	27	16	8
HNA	141	84	48	35	23
Percent FNA	100%	95%	90%	90%	90%
HNA	100%	95%	93%	91%	85%
SE FNA	2.7%	4.2%	4.2%	4.2%
HNA	2.1%	2.5%	3.3%	5.1%
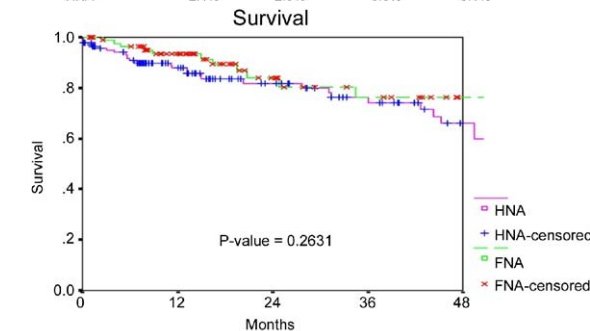
Survival

All Risk					
FNA	84	56	29	18	10
HNA	142	88	50	36	23
Percent FNA	100%	93%	84%	76%	76%
HNA	100%	88%	82%	74%	66%
SE FNA	2.9%	5.2%	7.1%	7.1%
HNA	3.0%	3.8%	5.1%	6.3%

Long-term Survival After Endovascular and Open Repair of Ruptured Abdominal Aortic Aneurysms

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Objective: This study compared the late outcomes in patients who survived 30 days after endovascular aneurysm repair (EVAR) and open repair (OR) for ruptured abdominal aortic aneurysms (RAAA).

Methods: Retrospective analysis was done of prospective data from all RAAA presented to our service from 1998 to 2009. Of 252 RAAA, 13 patients (5%) were treated nonoperatively (logistic issue, 2; poor prognosis, 10; death during CT scan, 1). Two patients had a nonrelated diagnosis (gastrointestinal bleeding and type A dissection). A total of 122 patients (49%) were treated by EVAR, and 115 (46%) with OR. The 30-day survival for EVAR and OR was 85% (103 of 122) and 67% (78 of 115), respectively. Mean follow-up was 43 ± 34.3 months (range, 1-132 months). Loss to follow-up for EVAR was <1%; for OR, 12%.

Results: The actual overall survival rate of all early EVAR and OR survivors was 62% (64 of 103) and 45% (43 of 78), respectively. Cumulative survival rates at 1, 3, and 5 years were 90%, 79%, and 69% for EVAR and 87%, 78% and 60% for OR, respectively.

Conclusions: This first series of long-term results after EVAR vs OR for RAAA shows an at least equivalent cumulative survival rate of 69% vs 60% at 5 years. Taking into account the short-term mortality reduction of EVAR vs OR (14% vs 33%, relative risk reduction of 62%), EVAR for RAAA is superior to open repair from the perspective of long-term as well as short-term outcomes. EVAR should become the standard of care for all RAAA in patients with suitable anatomy for EVAR.

Survival functions

Patients at risk:					
EVAR: 121	81	48	29		2
OR: 115	64	38	29		5
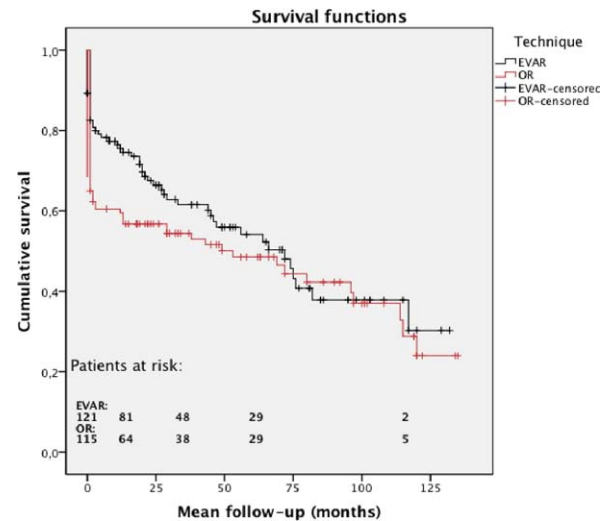
Total Sac Retraction After Endovascular Aneurysm Repair: 4 Years' Follow-Up, Correlation to Treatment Success and Predictive Factors.

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Objectives: The principal aim of this study was to demonstrate that the total sac retraction (TSR) was a predictive marker of durable success after endovascular aneurysm repair (EVAR). If verified, surveillance of patients with TSR may become unnecessary. We also tested patients and aneurysm-related factors that may predict the occurrence of TSR.

Methods: A group of 371 patients treated by EVAR had a complete clinical, CT scan, and duplex scan follow-up. Data were collected prospectively and analyzed retrospectively. We assessed the difference between the largest diameter of the aneurysm (D) and the diameter of the body of the stent graft (D1) on each postoperative CT scan. TSR was defined as a minimum of 75% reduction of this difference between the first and any of the following CT scans. Treatment success was defined as survival free of aneurysm-related death, type I or III endoleak, aneurysm expansion >5 mm, rupture, surgical conversion, migration, and graft occlusion. To assess the predictive factors of TSR, we performed a multivariable analysis and a logistic regression of the most significant variables.

Results: TSR was observed in 24.8% (92 of 371) of the patients after an average follow-up of 26 ± 21 months. Follow-up in this group was a mean duration of 50 ± 26 months vs 45 ± 25 months (P = NS). Survival was significantly longer in TSR group (96 ± 3 vs 93 ± 3 months, P < .05). No rupture, surgical or endovascular conversion was reported in the TSR group. The frequency of type I (2.2% vs 15.4%, P < .001), type II (3.3% vs 29.4%, P < 10^{-6}), type III endoleaks (1.1% vs 1.8%, P = NS), and secondary interventions (3.3% vs 13.3%, P <.05) was lower in TSR group. All type I and III endoleaks were diagnosed and treated before TSR detection. Because TSR was detected, treatment success remained till last follow-up in 91 of 92 patients (98.9%). The independent predictive factors of TSR were AAA diameter <55 mm (OR, 3.91; 95% CI, 2.16-7.11), infrarenal aorta diameter