and expressed as *% diameter change per 100 mm Hg* using the equation: C = [(Δ diameter)/(diastolic diameter) x (ΔP)]x 10^4.

Results: Compliance of the ascending aorta (17.5 %/100 mm Hg) and aortic arch (16.7) were similar within a single patient but differed among disease subgroups. (Table 1) Compliance decreased with age by 0.38 ± 0.09 ($p < 0.05$) per yr in the ascending aorta and 0.47 ± 0.08 ($p < 0.05$) per yr in the aortic arch. The decrease was more rapid for chronic dissection at 0.89 per yr (95% CI 1.4-0.4, $p < 0.05$). Compliance increased with diameter ($p < 0.05$) unless age-adjusted ($p = 0.15$) and was higher in the transection group than aneurysm or ulcer groups ($p < 0.05$). Compliance measured within a fully deployed endograft in 3 patients was 5.6 (range 1.7-8.7).

Conclusions: Ascending and aortic arch compliance is significantly higher than reported for peripheral vessels. Compliance decreases with age, atherosclerotic disease, and placement of endograft. Differences in compliance of native aorta may have implications on device design and long-term performance.

Table 1

		Ascending aorta		*Aortic arch*	
Diagnosis	*n*	*Mean*	*95% CI*	*Mean*	*95% CI*
Acute Dissection	14	17.9	12.0-23.8	16.2	11.5-20.1
Chronic Dissection	13	20.7	13.9-27.5	20.6	10.2-31.1
Thoracic Aneurysm	4	6.9	0-15.4	9.1	0.04-17.8
Transection	4	26.8	6.6-47.0	21.2	16.0-26.4
Penetrating Ulcer	3	5.8	0-13.8	6.2	0-13.8
No Disease	1	14.0	n/a	24.7	n/a
All Patients (no prior endograft)	**39**	**17.5**	**13.8-21.2**	**16.7**	**13.0-20.4**
Post-deployment Endograft	**3**	**5.6**	**Range 1.67-8.7**		

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PS18.

Female and Elderly AAA Patients More Commonly Develop Concurrent Thoracic Aortic Aneurysm

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Objectives: The prevalence of thoracic aortic disease in patients with abdominal aortic aneurysm (AAA) is unknown. A recent report revealed that one fourth of AAA patients have a concurrent aneurysm in the thoracic aorta (TAA). It remains to be investigated which AAA patients that have a higher risk of developing TAA. The aim was to identify possible differences in the risk factor profile in AAA patients with or without a TAA.

Methods: All AAA patients, with abdominal and thoracic computed tomography (CT), attending outpatient clinic at a university hospital, were included (n = 354). Image analysis and hospital chart review were conducted. The association of comorbidity and TAA was estimated by logistic regression and odds ratio's (OR) with corresponding 95% confidence intervals (CI's). Gender specific and neutral criterions were used.

Results: 94 (27%) of 354 AAA patients had a concurrent descending TAA (AAA/TAA). AAA/TAA patients were older compared to only AAA patients (77 vs 73 years, $p < 0.001$). More women were identified in the AAA/TAA group (39% vs 16% <0.001). In the logistic regression model, female sex (OR 3.3, CI: 1.9-5.6), hypertension (OR 1.8, CI 1.1-3.0) and age (70-79 years OR 2.4, CI 1.3-4.6; 80-89 years: OR 3.0, CI 1.5-6.0) were associated with concurrent TAA ($p < 0.001$). After adjustment only female gender and age were associated with TAA.

Conclusions: Surveillance of AAA patients must improve to enhance identification of the large group of patients who has developed, or will develop, concurrent TAA. This report identifies female sex and increasing age as factors to consider when analyzing AAA patients at risk of concurrent TAA. Future studies should address improved prevention for these patients.

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PS20.

Long-term Results of Talent Endografts for Endovascular Abdominal Aortic Aneurysm Repair

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Objectives: Since introduction of EVAR, long-term follow-up studies reporting single device results are scarce. In this study we focus on the Talent® endograft.

Methods: Between July 2000 and December 2007 366 patients underwent elective EVAR repair. Patient data were gathered prospectively and retrospectively evaluated. 74% of the patients were diagnosed ASA III and IV. Postoperative CT-scanning was performed before discharge, 6, 12 months and yearly thereafter. Data are presented according to reporting standards for EVAR (Chaikof et.al, J VS 2002).

Results: Mean proximal aortic neck diameter was 27 mm, with a neck length ≤15 mm in 31% (data available for 193 cases). Deployment of endografts was successful in 99% (362/366) of patients. Initially conversion to laparotomy was necessary in 4 cases. Primary technical success based upon results from CT-scans before discharge was achieved in 91% (332/366). 8% (28/366) patients had proximal type 1 endoleaks; during follow-up 14/28