whereas the postoperative creatinine level and new onset renal failure requiring hemodialysis differed significantly between the groups (Table).

Conclusions: Endograft implantation in patients with descending thoracic aneurysm after previous abdominal aortic surgery can be performed without technical problems. In comparison to patients with conventional repair, those with endograft implantation have a statistically significantly lower risk of renal failure and shorter intubation time with less blood transfusion. Although no statistical difference is present, the early outcome of endovascular graft treatment appears to be better than that of conventional surgical repair, also in respect to neurological complications and mortality. Statistical analysis of results in endovascular group and surgical group.

Variables	*Endovascular group (n=29)*	*Surgical group (n=20)*	*P value*
Age (mean±SD)	71±6.4	69±6.4	n.s.
Sex(male/female)	24/5	16/4	n.s.
Creatinine (mg/dl)	1.57±1.4	1.42±0.5	n.s.
Preop.(mean±SD)Postop. (mean±SD)	1.92±1.7	2.3±1.2	0.04
Postop. dialyses (n)	1 (3.4%)	6 (30%)	0.02
Neurological complications (n)	2 (6.8%)	3 (15%)	n.s.
Intubation time (hours) (median) (range)	6 (3-720)	60 (24-1560)	<0.001
Blood transfusion (ml) (mean±SD)	(249±456)	(2126±1809)	<0.01
Secondary thoracotomy (n)	1 (3.4%)	3 (15%)	n.s.
30-day mortality (n)	2 (6.8%)	3 (15%)	n.s.

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PP77.

Pulmonary Artery Catheter Directed Rapid Right Ventricular Pacing to Facilitate Precise Deployment of Endografts in the Thoracic Aorta: A Novel Approach

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Objective: Controlled hypotension is critical for precise deployment of endografts in the thoracic aorta and for safe balloon dilation after deployment. Rapid right ventricular pacing (RRVP) via a transfemoral venous catheter has been reported previously as a technique to facilitate thoracic endograft placement. We describe a novel approach to RRVP using a pulmonary artery catheter (PAC) that is placed during the endograft procedure for hemodynamic monitoring.

Methods: Clinical and radiological records of 12 patients (8 men and 4 women, mean age 80 years, range 75 - 89) who underwent endograft placement in the thoracic aorta with PAC- directed RRVP were reviewed. Endografts were placed to treat thoracic aneurysms (mean size 65 ± 8 mm) in 10 patients, and penetrating aortic ulcers in 2 patients. All endografts but one were deployed in the proximal aorta (zones 1-3). Hemodynamic parameters, accuracy of deployment, complications related to RRVP and PAC placement, presence of endoleaks and postoperative complications were evaluated.

Results: PAC-directed RRVP was performed during endograft deployment and post-deployment balloon dilation without technical difficulty or delayed recovery in all patients. A median of two pacing episodes were performed for each patient (range 1-4). The length of each pacing episode was less than 15 seconds (mean 11 seconds, range 6-14). Mean pacing rate was 165 ± 15 beats per minute which achieved an average mean arterial pressure of 42± 8 mm Hg for a mean duration of 16 seconds. After pacing cessation, the recovery time of mean arterial pressure from 42±8 mmHg to pre-pacing levels was within 8 seconds in all patients. All endografts were deployed with precise positioning at a mean of 2.5±2 mm from the intended placement site. No complications related to RRVP or PAC placement occurred. No type I endoleaks nor postoperative complications were observed. There was no peri-operative mortality.

Conclusion: PAC-directed RRVP is a safe and effective method of inducing hypotension, enabling precise thoracic endograft deployment and safe balloon dilation after deployment. It avoids the use of femoral venous access and its associated potential complications, and obviates the need to involve a cardiologist, simplifying the procedure and utilizing resources readily available to the vascular surgeon.

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PP78.

Repair of Thoracoabdominal Aneurysms: Improvement with Adjuncts but Still High Risk

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Objective: Open repair of descending thoracoabdominal aneurysms (TAA) is associated with significant mortality and morbidity. We assessed the impact of surgical adjuncts on outcomes for patients undergoing open TAA repair.

Methods: Retrospective analysis of a prospectively maintained database was performed to assess the impact of adjunctive techniques on outcomes for patients undergoing elective TAA repair (Crawford type I-IV) between January 1992 and January 2008. Patients were divided into two groups based on the period of operation: group A (1992-2000) and group B (2000-2008). Surgical adjuncts were introduced for patients in group B (CSF drainage for all; distal aortic perfusion and selective visceral perfusion for type I, II and III aneurysms only; a cell saver for type IV).

Results: A consecutive series of 109 patients with a median age of 69 years (range 21-89) were analysed. The mean operating time for group A (n=31) was 195 minutes (range 140-480) compared with 200 minutes (range 90-300) in group B (n=78). Median blood loss for group A was 3682 ml (range 2495-10000) compared with 3000 ml (range 400-17000) for group B. The combined mortality rate was 32.2% in group A (type I-III, 25.0%; type IV, 37.4%) compared with 14.1% in group B (type I-III, 17.1%; type IV, 10.8%;p=0.03).The overall complication rate in group A was 61.3% (type I-III, 50.0%; type IV, 68.8%) compared with 37.1% in group B (type I-III, 48.8%; type IV, 21.6%; p=0.02). The overall paraplegia rate was 12.9% in group A (type I-III, 18.8%; type IV, 6.3%) compared with 7.7% in group B type I-III, 14.6%; type IV, 0%).

Conclusions: Series from individual specialist centres report excellent outcomes after TAA repair but this is in contrast with multi-centre data. The introduction of adjunctive techniques in our series has resulted in a reduction in mortality and complication rates but they remain high. Monitoring of spinal cord function may reduce the rate of paraplegia.

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PP79.

Stent-Graft-Induced New Entry Following Endovascular Aortic Repair for Stanford Type B Aortic Dissection——Consideration and Prevention From the Perspective of Stress-related Injury

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Objective: To discuss the causation and prevention of the stent-graft-induced new entry (SINE) following endovascular aortic repair (EVAR) for type B dissection.

Methods: SINE was defined as the new tear caused by the stent-graft itself, excluding those created by the injury from any inappropriate endovascular manipulation. Twenty one paitents with SINE were retrospectively collected and analysed out of 650 cases undergoing EVAR for type B dissection from August 2000 to June 2008 in our center.

Results: Totally, there were 22 SINEs found in 21cases. SINE occurred at the proximal end of the endograft in 15 cases, at the distal in 5, and at both in 1. Its incidence was 3.2% and onset time varied from postoperative 2 hours to 60 months (mean 9±15 months). All 16 proximal SINEs lead to retrograde type A dissection. Two distal SINEs caused enlarging aneurysm and 4 remained stable. Devices used and management are shown in the Table. Devices Used and Management of SINEs SINE indicates the stent-graft-induced new entry. Six patients died and the mortality reached 29%. All 21 cases had the endograft placed across the distal aortic arch. Thirteen proximal SINEs were evidenced at the greater curve of the arch, and all distal SINEs at the dissection flap.