

**#10 ENDOVASCULAR TREATMENT OF FAILED PRIOR
ABDOMINAL AORTIC ANEURYSM REPAIR**

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Objective: Failure of endovascular or conventional abdominal aortic aneurysm (AAA) repair may occur as a result of attachment site endoleak (type I) or para-anastomotic aneurysm and pseudoaneurysm formation. This study examined the results of the use of endovascular grafts for the treatment of failed prior infrarenal AAA repair procedures.

Methods: 40 patients were treated using endovascular grafts. These included 13 patients with type I endoleaks (4 proximal, 8 distal, 1 proximal and distal) and 27 patients with para-anastomotic aneurysms after standard open surgical AAA repair (3 proximal aorta, 4 distal aorta, 16 iliac, 4 proximal and distal). The interval between the primary aortic procedure and the endovascular repair was significantly shorter for failed endovascular procedures (mean, 18.2 months; range, 1-42 months) than for failed conventional procedures (mean, 108.9 months; range, 12-216 months)($p < 0.01$). The endovascular devices used for correction of the failed AAA repairs were: Talent (19), physician-made (16), AneuRx (2), Vanguard (2) and Excluder (1). Mean follow-up after re-intervention was 12.2 months in patients with failed endovascular grafts and 10.6 months in patients with failed conventional grafts. Patient demographics were: average age, 79 years; 34 male; 6 female; 4.1 comorbid medical conditions / patient.

Results: The endovascular graft was successfully deployed in all 40 cases; 1 patient experienced a persistent proximal attachment site endoleak after endograft deployment. 4 patients experienced type II endoleaks, 1 persisted beyond 6 months. In follow-up AAA diameter decreased (>5 mm) in 20 patients (50%), remained stable in 18 patients (45%) and increased (>5 mm) in 2 patients (5%). No patient experienced aneurysm rupture or aneurysm related death. Major morbidity occurred in 5 patients (2 prior endovascular, 3 prior conventional) with no perioperative mortality.

Conclusions: Endovascular grafts may be used to treat previously failed endovascular and conventional AAA repair procedures with good short and intermediate term results. Endovascular treatments in these cases may avoid the difficulties of aortic reoperation or AAA repair in the setting of a prior endovascular aortic grafting.