

Abstract 6**Endovascular Exclusion of Saccular Abdominal Aortic Aneurysms Using “Stacked” *AneuRx* Aortic Cuffs**

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Background: Aorto-aortic “tube” endografts have demonstrated a high failure rate with fusiform abdominal aortic aneurysms (AAA) previously because of early and late Type I endoleaks at the distal attachment site. Saccular AAA, however, may have anatomy more conducive to tube endovascular repair.

Methods: At our institution, 129 abdominal aortic aneurysms have been treated endovascularly. After conclusion of FDA approved Phase II and III clinical trials, 5 patients underwent endoluminal exclusion of a saccular AAA. The average maximum diameter of the aneurysms was 3.7 cm (range, 3.0 to 4.7 cm). Patients ranged in age from 55 to 69 years old. *AneuRx* aortic cuff prostheses (3.75 cm length) were utilized in all patients via a right femoral approach. The aortic cuffs were placed sequentially with approximately 1.5 cm of overlap (“stacked”) until complete exclusion of the aneurysm was achieved. Either 2 or 3 cuffs were employed per patient. Patient follow-up ranged from 4 to 32 weeks with abdominal CT scans at 4 and 24 weeks.

Results: All procedures were performed under spinal or local anesthesia with an average procedural time of 87 ± 51 minutes. Successful exclusion of saccular infrarenal aortic aneurysms was achieved in all 5 patients using “stacked” aortic cuffs. The average estimated blood loss was 540 cc (range, 200 to 900 cc). The overall average hospital length of stay was 1.6 days. No major morbidity or mortality occurred in this group. There were no early or late endoleaks demonstrated and no aneurysm expansion has occurred. All prostheses remain in good position with no evidence of device migration at last follow-up.

Conclusion: Saccular AAA provides idea anatomy for endovascular repair with a “tube” endograft. Due to a higher rate of reported Type I endoleaks with unibody aorto-aortic endografts, aortic cuffs may be more effective in a “stacked” configuration to treat this type of aneurysm.

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