

## 6. Endovascular Aortic Repair is Safer for Ruptured Aortic Aneurysms

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**BACKGROUND:** Endovascular Aortic Repair (EVAR) was devised as a less invasive treatment method for abdominal aortic aneurysms (AAA) in higher risk patients.

**Purpose:** To review the clinical outcomes of EVAR in patients presenting with ruptured AAA and compare results with patients having open AAA repair in the same institution.

**METHODS:** All patients presenting with ruptured AAA were entered in our database. Clinical presentation and preoperative imaging, operative details, type of repair open vs. EVAR were recorded. Postoperative outcomes including renal and respiratory failure, colon or limb ischemia, abdominal compartment syndrome, hospital length of stay and discharge status were analyzed.

**RESULTS:** In a 5-year period, ending in March 2009, 51 patients presented with ruptured AAA. In group I, 35 patients (28 males and 7 females) with an average age 73, had open AAA repair. In group II, 26 patients (20 males and 6 females) with an average age 75, had EVAR with one of two types of stent grafts. In group I, 3 patients developed ischemic colitis, 2 acute renal failure and 2 respiratory failure. One patient had leg ischemia postoperatively requiring thrombectomy. In group II, abdominal compartment syndrome developed in 3 patients and 3 had respiratory failure with prolonged ventilator support. Ischemic colitis occurred in one patient and another patient required femorofemoral bypass for leg ischemia. There were no differences in the complication rates between the two groups. In group I, 7 patients (20%) died compared to 2 patients (8%) in group II.

**CONCLUSION:** Patients with ruptured AAA have an improved survival rate if they can have EVAR. Furthermore, a trend toward reduced length of stay and a faster recovery is observed in patients with ruptured AAA treated with EVAR.