Endovascular Abdominal Aortic Aneurysm Repair Is Still a Failed Experiment

NOTES

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The rupture risk for abdominal aortic aneurysm (AAA) < 5.5 cm is under 1% per annum. AAAs of 5.5 to 6.9 cm diameter even in high risk patients rupture at a rate of < 10% per annum.

The EVAR 2 trial has shown that in high risk patients with aneurysms of median diameter 6.4 cm (IQR 6.0 to 7.4) EVAR has an operative mortality of 9%. There is no compensatory delayed beneficial effect on patient survival.

In healthy patients with AAA median diameter 6.2 cm (IQR 5.8 to 7.0), neither endovascular aneurysm repair (EVAR) nor open repair seems to improve patient survival. The EVAR I study showed that EVAR has a 30-day (operative) mortality around four times that of untreated patients. The low operative mortality of EVAR compared with open AAA repair was negated by the subsequent relentless complication rate (41% by 4 years). The initial survival advantage for EVAR over open surgery had been lost within a year.

The experimental operation of EVAR is of doubtful efficacy; its high-complication rate enslaves patients to lifelong medical care. For large aneurysms with a rupture risk high enough to justify prophylactic surgery, EVAR is seldom possible.