



Title	Endovascularly Placed Grafts for Infrarenal Abdominal Aortic Aneurysms: A Systematic Review of Published Studies of Effectiveness
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Aim

To evaluate the effectiveness of endovascularly placed grafts for the repair of aortic and carotid artery disease.

Conclusions and results

Twenty relevant studies, which were predominately case series, met inclusion criteria for review. Sixteen studies were of endovascular technologies for treating infrarenal abdominal aortic aneurysms (AAA) and constituted the main focus of the review. The resulting evidence base is methodologically inadequate for determining if endovascular repair of infrarenal AAA result in lower morbidity, mortality, and/or healthcare costs for: a) patients eligible for either endovascular repair or standard open surgical repair, b) patients ineligible for standard open surgical repair due to the presence of severe comorbid medical conditions, and c) patients who have small, asymptomatic nonexpanding AAA who are managed through watchful monitoring followed by standard open surgical repair when indicated.

Recommendations

No definitive conclusions regarding the effectiveness of endovascular graft repair of infrarenal AAA can be drawn from the existing body of evidence. The critical question regarding the potential to overutilize a minimally invasive treatment option in patients with marginal indications for surgery needs to be addressed.

Methods

Comprehensive literature searches were conducted using MEDLINE, HealthSTAR, and Current Contents from 1993 through 1998. Search strategies used the following terms: aortic aneurysm, aortic aneurysm, abdominal, carotid stenosis, stent, and minimally invasive. The searches yielded 555 articles. This review included studies on the effectiveness of endovascular repair of AAA published since 1990 in English and which used sufficient methods.

Further research/reviews required

Future research is needed to determine if endovascular repair is preferable to alternative interventions for patients eligible or ineligible for standard open surgical procedure or patients with small aneurysms.