INVITED COMMENTARY

Endovascular Aneurysm Repair — To Avoid Rupture or to Improve Quality of Life?

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Surgical treatment of small abdominal aortic aneurysms (AAA) does not save lives. The UK small aneurysm trial and the ADAM trial both showed this after open repair.1,2 Although endovascular repair is associated with a lower perioperative mortality, the CAESAR and PIVOTAL trials confirmed this finding regarding endovascular repair (EVAR) of small AAAs.3,4 The current study5 by De Rango et al. indicates that despite the lack of survival benefit, stent-graft treatment might have a beneficial effect on the patient’s health from a quality of life perspective.

Quality of life of patients with AAA has been studied in different circumstances previously. Screening studies indicate that detection of an AAA has a small negative effect on a patient’s quality of life, which is corrected by surgical treatment of the aneurysm.6–8 Additionally, based on studies of open repair of patients with small AAAs, surgical treatment of small aneurysms results in a short-term improvement of quality of life.9,10 When comparing quality of life after open and endovascular repair, there is a short-term benefit for EVAR, which is potentially offset by a long-term benefit for open repair.11,12

Open surgical treatment of a small aneurysm purely based on quality of life criteria is not a realistic option when the treatment itself carries a 3–5% risk of mortality. However, in the endovascular era with equal survival outcome after surveillance and early EVAR of small AAAs, this aspect of aneurysm treatment can be relevant to consider. The current study, which has evaluated quality of life among patients randomized to early endovascular repair of small AAAs or surveillance, shows that early EVAR resulted in higher scores both in the physical and mental health aspects of quality of life within the first six months post treatment compared to surveillance. This quality of life benefit after EVAR was not sustainable. The clinical significance of the small mean difference in quality of life is dubious. However, it can be expected that the benefit is higher in selected patients who suffer more from the uncertainties associated with the knowledge of carrying a potentially fatal disease.

Despite this beneficial outcome after early EVAR in small AAAs compared to surveillance, it is too early to recommend a change of treatment strategy. The early treatment strategy is associated with a higher cost than surveillance. The cost of early open surgical treatment of small AAA was 17% higher than the cost of surveillance in the UK small aneurysm trial.1 This difference is probably even greater with the more expensive endovascular repair. In the current climate when economical resources in health care are scarce, use of additional resources must be justified by clinically relevant improvements in outcome. The reader of the current study is not convinced of the benefit associated with early EVAR of small AAAs. A full health economic evaluation of the results of the CAESAR trial is warranted.

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