

#12 QUALITY OF LIFE BEFORE AND AFTER ABDOMINAL AORTIC ANEURYSM SURGERY: A PROSPECTIVE COMPARISON OF ENDOVASCULAR AND OPEN REPAIR

K. Al-Wahaibi MD, D. Abner, MScN, B. Al-Jabri, MD, G. Meshefedjian, PhD ,
K.S. MacKenzie, MD, D.I. Obrand, MD, B. Montreuil, MD,
R. Lewis, MD, O.K. Steinmetz, MD

Division of Vascular Surgery, McGill University, Montreal, Quebec, Canada

Purpose: To compare changes in Health-Related Quality of Life (QOL) for patients with infrarenal abdominal aortic aneurysm (AAA) undergoing elective endovascular (EVR) and open aneurysm (OR) repair.

Methods: A prospective, non-randomized cohort of 76 patients (62 males, 14 females; age range 42-89) undergoing elective, infrarenal AAA repair (EVR n=43; OR n=33) at two university teaching hospitals between September 1999 and January 2001 was evaluated. The Medical Outcomes Study Short-Form 36-item (SF-36) health survey was given pre-operatively (preop) as well as 1 week, 1 month and > 6 months postoperatively (postop). Patient demographics, procedural details, postop follow-up data and SF-36 scores were compared.

Results: EVR patients were older than OR patients (mean age 76.1 versus 68.6; $p=0.002$) and had more debilitating angina preop (NYHA Class 2, 3 & 4 in 37.2% EVR vs. 9.1% OR; $p=0.01$). The prevalence of all other preop risk factors was similar in the 2 groups. OR patients had greater estimated operative blood loss (mean 1200 cc OR vs. 300 cc EVR; $p<0.0001$), use of postop epidural or PCA analgesia (78.7% OR vs 21.0% EVR; $p<0.0005$) and use of postop ICU monitoring (100% OR vs. 18.6% EVR; $p<0.0005$). OR patients required more time to tolerate normal diet (median 96 hours (hrs) OR vs. 16 hrs EVR), more prolonged urinary catheterization (median 72 hrs OR vs. 16 hrs EVR) and required longer to ambulate without assistance (median 96 hrs OR vs. 24 hrs EVR). OR patients had more postop major and minor complications (57.6% OR vs. 30.2% EVR; $p=0.017$) and had longer postop hospital stays (median 7 days OR vs. 3 days EVR) but patients in the EVR group were more likely to be re-admitted within 6 months (25.6% EVR vs. 6.1% OR; $p=0.025$). There were no peri-operative deaths. Three deaths occurred after EVR within 6 months of surgery.

The preop total SF-36 scores were similar in the two groups (66.2 OR vs. 61.0 EVR; $p=0.283$). In both groups, the total SF-36 scores declined at 1 week and 1 month postop but returned to the preop scores at >6 months (66.2 to 72.3 OR; $p>0.1$); (61.0 to 58.7 EVR; $p>0.1$). Six-month total SF-36 scores were significantly better in the OR group compared to the EVR group (mean 72.3 OR vs. 58.7 EVR; $p=0.009$). Analysis of the eight domains of the SF-36 revealed that EVR patients' scores reached baseline significantly sooner in the categories of Vitality (EVR-1 week vs. OR > 6 months), Role Emotional (EVR-1month vs. OR >6 months) and Physical Function (EVR -1 month vs. OR- 6 months). There was no change when results were adjusted for age.

Conclusions: Health-Related QOL after infrarenal AAA repair is significantly impaired in the early postop period but returns to baseline by 6 months in patients treated with EVR and OR. Patients having EVR had significantly more rapid return to preop scores in selected domains of the SF-36. Even though EVR is associated with a less invasive operative procedure, more favourable perioperative hospital course and fewer postop major and minor complications, patients undergoing EVR have lower QOL scores > 6-months after surgery than do patients having OR.