Long-term (13yrs) follow-up after Endovascular Aneurysm Repair: is it a durable intervention?

John P Fletcher, MD
University of Sydney and Westmead Hospital, New South Wales, Australia

Endovascular aneurysm repair (EVAR) was first performed at Westmead in 1994 with the EndoVascular Technology (EVT) “Ancure®” device. The advantage of this endograft was its unibody design with secure hook attachment system but it was considered more complex to use than other systems and required a large delivery sheath (27FG). We had 59 successful Ancure® implants up until 2000 when the device became unavailable and this cohort of patients has been carefully followed for a mean of 78 months. Early intervention for graft limb occlusion was needed in 15.3% and abdominal conversion was required in 5.1% (one within one month, one at three years and one at 9 years). There have been 25 late deaths (42.4%), none from AAA rupture. Endoleak rate was 15.3% with six patients requiring intervention (two open and four endovascular). Initial aneurysm diameter was significantly greater in patients with endoleak (p=0.03); an initial reduction of sac diameter occurred in both endoleak and non-endoleak patients but this reduction was not maintained in endoleak patients. Colour Doppler was an effective means of follow-up. Overall, the Ancure® device has been durable with no subsequent interventions needed in 85% of patients after the first three months following implantation, but late events out to nine years emphasise the need for indefinite follow-up. Since 2000 the Cook Zenith® device has been our stent-graft of choice. With 75% of abdominal aortic aneurysms now managed by EVAR, the decreasing proportion of open vascular surgery has major implications for vascular surgical training.