Postmenopausal women with diabetes have a reduced risk of abdominal aortic aneurysm

Little is known about the etiology of and risk factors for abdominal aortic aneurysm (AAA) in women. Lederle *et al*. have now published data from a large, multicenter, prospective, observational study that has revealed that hormone replacement therapy and diabetes exert protective effects against AAA in their all-female cohort.

The Women's Health Initiative enrolled a total of 161,808 postmenopausal women aged 50–79 years (mean 65.2 years), 301 of whom reported having a previous aortic aneurysm. During follow-up of the whole cohort (mean 7.8 years) 184 AAA events occurred, which resulted in 14 deaths. Multivariate analysis identified several strong predictors of risk for AAA in this population, including having ever smoked (OR 1.94), being a current smoker (OR 4.19 or 8.73 compared with never having smoked), hypertension (OR 2.14), coronary artery disease (OR 2.38), peripheral artery disease (OR 1.81), and the patient's age (OR 1.77). The consumption of alcohol did not increase the risk of AAA. Current and past use of postmenopausal hormone therapy was associated with a reduced risk of AAA (ORs 0.48 and 0.76, respectively). Furthermore, women with diabetes were around 70% less likely to experience AAA than were those without diabetes. This finding supports the negative association between diabetes and AAA previously seen among men. The authors advocate further studies to elucidate the biological mechanisms responsible for these risk reductions.

Original article Lederle FA *et al.* (2008) Abdominal aortic aneurysm events in the women's health initiative: cohort study. *BMJ* **337:** a1724

Periprocedural stroke or death more likely with carotid stenting than endarterectomy

Two multicenter, randomized trials have shown that carotid endarterectomy is associated with better outcomes than carotid stenting within 30 days of the procedure, but that these procedures are equally effective in the prevention of ipsilateral stroke after this periprocedural period.

In the SPACE (Stent-Protected Angiography Versus Carotid Endarterectomy) study, 1,214 patients with symptomatic, severe carotid artery stenosis (defined as ≥70%) in the previous 6 months were randomly assigned to undergo angioplasty with stenting ($n = 613$) or endarterectomy ($n = 601$). The primary end point was ipsilateral stroke or death from any cause in the first 30 days after treatment. The secondary end points were fatal or disabling stroke, any stroke, procedural failure, continued severe stenosis, or vessel occlusion in the first 30 days after treatment. The 2-year end points were rates of ipsilateral ischemic stroke, ipsilateral disabling ischemic stroke, ipsilateral ischemic stroke or vascular death, ischemic stroke, all-cause mortality, and incidence of recurrent, severe carotid stenosis. After exclusion of 60 patients for major protocol violations, endarterectomy was associated with better outcomes than stenting for most of the 30-day end points. For the 2-year end points, no significant differences were found between patients who had undergone endarterectomy and those who had undergone stenting. Recurrent, severe carotid stenosis occurred more often in patients who had angioplasty with stenting than in patients who had undergone endarterectomy, and most occurred within 6 months of the procedure.

In the EVA-3S (Endarterectomy Versus Angioplasty in Patients with Symptomatic Severe Carotid Stenosis) study, 527 patients with severe carotid artery stenosis (defined as ≥60%) that had become symptomatic in the previous 120 days were randomly assigned to undergo stenting ($n = 265$) or endarterectomy ($n = 262$). The study's primary end point was the rate of any stroke or death within the first 30 days after treatment. The trial was terminated early owing to stenting being associated with an increased risk of stroke or death within the 30-day periprocedural period. The main secondary end point was stroke or death in the periprocedural period or any nonprocedural, ipsilateral stroke in the first 4 years of follow-up. The hazard ratio for this secondary end point was 1.97 (95% CI 1.06–3.67, $P = 0.03$) for stenting compared with endarterectomy; however, most of this increased risk was found to result from stroke or death within the periprocedural period. The risk of any nonprocedural, ipsilateral stroke between the end of the periprocedural period and the 4-year follow-up was similar for patients who