Anastomotic devices in coronary artery surgery: it is about the anastomosis?

Patel NC, Heml JM.

Abstract

Excellent long-term graft patency remains the primary goal of any surgical coronary revascularization procedure, irrespective of how the operation itself is performed. Inter- and intra-surgeon variability in the surgical technique and in the subsequent quality of the anastomosis have the potential to significantly impact not only on graft patency but also, as a result, on patient outcomes. Anastomotic devices, proximal and distal, can facilitate the creation of rapid, reproducible, compliant anastomoses, on- or off-pump, in potentially difficult-to-access areas, often through minimal-access incisions, potentially with neuro-protective benefits, and can thus mitigate some of the hazards inherent in manually constructing anastomoses in technically challenging or suboptimal conditions. We review the three most commonly employed anastomotic devices in adult cardiac surgical practice today.