

 SURGERY

Reliability of radial artery in CABG surgery

The 20-year angiographic outcome of using the radial artery in CABG surgery is similar to that with the gold standard internal thoracic artery (ITA), according to a prospective, observational study published in the *Journal of the American College of Cardiology*. Although the use of this alternative arterial conduit in CABG surgery was already established, the long-term outcomes were unknown, which has probably limited its use in clinical practice.

In this study, 100 consecutive patients who received the radial artery graft were followed up for 20 years. Among this cohort, 64 patients died (41 noncardiac deaths and 23 cardiac deaths), whereas ischaemia-free survival was 21%. Long-term follow-up of the radial arteries was completed in 33 of the 36 survivors. “We used a systematic angiographic protocol for graft reassessment at 1, 5, 10 and 20 years after surgery,” explains Mario Gaudino, lead author on the report.

The 20-year rates of patency and perfect patency with the radial artery (84.8% and 72.7%,

respectively) were not significantly different from those with the left ITA (93.9% and 93.9%), but were significantly higher than those with the saphenous vein (45.1% and 25.8%). The investigators also found that >90% stenosis of the target vessel, but not the location of distal anastomosis, significantly affected the patency rates of the grafted radial artery. No patients experienced hand ischaemia associated with harvesting of the artery.

In an accompanying Editorial, Marc Ruel and Pierre Voisine conclude that “the study adds to the evidence suggesting that the radial artery may subclinically represent the second-best conduit for CABG [surgery] after the ITA, albeit of still unproven incremental clinical benefit over the use of saphenous vein”.

Dario Ummarino

ORIGINAL ARTICLE Gaudino, M. *et al.* Radial Artery as a coronary artery bypass conduit: 20-Year results. *J. Am. Coll. Cardiol.* **68**, 603–610 (2016)