

KEY REFERENCES

Radial, Inferior Epigastric, Right Gastroepiploic, and Other Arterial Conduits for Coronary Bypass Surgery

In the initial article on the use of the radial artery graft during coronary artery bypass graft (CABG) surgery, Carpentier et al [1973] reported poor outcomes. Although Carpentier et al recommended that this conduit not be used because of early graft occlusion, in 1992 Acar et al demonstrated that routine use of calcium-channel-blocking agents and modification of the radial artery harvesting technique resulted in excellent patency rates (exceeding 93.5%) at early follow-up. A decade later, we seem to be reaching the “tipping point” for routine revascularization of the heart with all-arterial conduits. In addition to the use of both internal mammary artery conduits, the radial artery is being used more frequently in elective CABG; where more conduits are necessary, the gastroepiploic artery has also been used with excellent outcomes in expert hands. These Key References are a compilation of articles that have made a significant impact in the practice of “all-arterial” revascularization in cardiac surgery. We present articles that provide historical overview, review articles, and articles related to the use of the radial artery, inferior epigastric artery, right gastroepiploic artery, composite grafts, and miscellaneous conduits. These conduits may be important in redo surgery when mammary artery or saphenous vein conduits are not available for bypass grafting. With a more demanding and sophisticated patient population, referring physicians are more routinely requesting all-arterial revascularization, and we will soon reach that tipping point toward the more routine use of all-arterial revascularization in elective CABG.

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