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See Article page e251.

Commentary: The sound before a radial blast

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Total arterial coronary artery bypass grafting, when anatomically appropriate, is quickly becoming the new benchmark of modern revascularization guidelines. Despite accumulating evidence toward improved long-term patency with arterial grafts, the degree of implementation and specific institutional practices remain highly variable. Particularly regarding the use of radial arterial grafts, the use of calcium channel blockers (CCBs) and endoscopic harvesting techniques have become popular to reduce invasiveness as well as the risk of vasospasm, but to what degree they are utilized globally is unknown.¹

Given this background, the study by Robinson and colleagues² contributes a deeper understanding into the current practices surrounding radial arterial graft use in high-volume coronary artery bypass grafting centers across 4 continents. Among the 69 centers that participated in this survey study from the Randomized Comparison of the Outcome of Single versus Multiple Arterial Grafts Trials

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CENTRAL MESSAGE

As radial arterial grafting techniques gain importance in contemporary revascularization, harvesting methods and medical management ways to reduce vasospasm and improve long-term outcomes are needed.

Network and the Cardiothoracic Surgical Trials Network, CCBs, most commonly amlodipine, were prescribed post-operatively at nearly 70% of the centers, and endoscopic harvesting technique was available at 56.5%. Both practices were significantly more common in North America than in Europe.

These findings are reflective of the still-evolving nature of the guidelines surrounding radial arterial graft use, and the need for the cardiac surgical community to more assertively study and establish best practices. As the authors note, recent studies have demonstrated a difference in clinical or angiographic outcomes with the use of CCBs, contrary to some of the older studies in the literature.³ The optimal timing or duration of administration remains to be further studied. Similarly, regarding radial arterial harvesting technique, the endoscopic approach has been shown to provide equivalent angiographic patency and functional outcomes in small studies but still lacks the

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evidence to be widely adopted.⁴ The choice between endoscopic and open harvesting techniques appears to be dependent on local resources, prior training, and individual preferences.

Robinson and colleagues should be congratulated for their important work in this rapidly growing subspecialty that we can use to ignite a greater momentum to pursue further rigorous research. The use of multiple arterial grafting will only become more important to optimize long-term patient outcomes. Their findings can underpin future efforts to refine harvesting and clinical practices.

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