

Endoscopic radial artery harvesting is better than the open technique

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Background Radial arteries are being used more often for coronary artery bypass grafting. A minimally invasive technique was devised for harvesting vessels and compared with the traditional harvesting technique.

Methods: In a prospective study of 200 consecutive patients undergoing coronary artery bypass grafting, 100 patients had traditional open radial artery harvesting and 100 underwent endoscopic radial artery harvesting. All patients had a preoperative modified Allen's test with Doppler imaging. The traditional technique involved a longitudinal incision over the radial aspect of the arm from the wrist to the antecubital fossa. The radial artery was dissected subfascially and removed. The endoscopic technique involved a 3-cm incision over the radial aspect of the arm. A vessel loop was placed around the artery and carbon dioxide was insufflated into the wound. The radial artery was dissected to the brachial artery and ligated with an Endo-loop ligature. The branches were divided

with bipolar electrocautery and ligated with clips. Patients were evaluated for postoperative pain, bleeding, neuralgias, infection, and any adverse events. A p value of less than 0.05 was considered significant.

Results: All 200 radial arteries were successfully harvested and used as grafts. Patients who had undergone endoscopic radial artery harvesting had significantly fewer major complications than patients who underwent the open technique: hematomas (five versus no complications) or wound infections requiring antibiotics (seven versus one complication). The occurrence of major neuralgias that restricted function were also significantly lower postoperatively and 1, 3, and 6 months later (ten versus one, eight versus one, five versus zero, and one versus zero, respectively).

Conclusion: Endoscopic radial artery harvesting results in good cosmetic results, useable grafts, and minimal neuralgias. Endoscopic radial artery harvesting is better than traditional open radial artery harvesting.

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