

## SURGERY

## SINGLE VS BILATERAL ARTERY GRAFTS

In patients undergoing CABG surgery, no differences in cardiovascular event rate or mortality were observed between those receiving single internal thoracic artery grafts and those receiving bilateral internal thoracic artery grafts after 5 years of follow-up. These findings were published in *NEJM*, and presented at the AHA Scientific Sessions 2016.

Previous observational studies suggest that bilateral internal thoracic artery grafting might result in fewer deaths compared with single internal thoracic artery grafting, but randomized data were lacking. The ART investigators sought to compare the 10-year survival rates associated with each procedure. Patients with multivessel coronary artery disease requiring CABG surgery were enrolled into the study, and assigned to undergo either single or bilateral internal thoracic artery grafting. The primary end point of the study was all-cause death at 10 years.

In total, 1,554 patients were assigned to the single-graft group, and 1,548 patients were assigned to the bilateral-graft group. After 5 years of follow-up, there were 130 deaths (8.4%) in the single-graft group and 134 deaths (8.7%) in the bilateral-graft group (HR 1.04, 95% CI 0.81–1.32,  $P=0.77$ ). The incidence of sternal wound reconstruction was 0.6% in the single-graft group versus 1.9% in the bilateral-graft group ( $P=0.002$ ), whereas the rate of sternal wound complication was 1.9% versus 3.5%, respectively ( $P=0.005$ ).

Given these neutral results, the study investigators speculate that “the rate of vein-graft failure within 5 years may not be high enough to have an obvious adverse clinical effect [and] there may not be a direct association between vein-graft failure and clinical events”. The 10-year follow-up study is ongoing and will provide more conclusive results.

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**ORIGINAL ARTICLE** Taggart, D. P. et al. Randomized trial of bilateral versus single internal-thoracic-artery grafts. *N. Engl. J. Med.* <http://dx.doi.org/10.1056/NEJMoa1610021> (2016)