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**LEFT INTERNAL MAMMARY GRAFTS: NO PATENCY DIFFERENCE TO THE LEFT ANTERIOR DESCENDING ARTERY**

To the Editor:

We congratulate Singh and colleagues for their comprehensive data acquisition and analysis of left internal mammary artery (LIMA) single, sequential, or Y grafts from the Royal Melbourne Hospital, which has provided substantial contributions in coronary surgery over many years. They reference our report of composite IMA grafting and suggest that in our series, LIMA–left anterior descending (LAD) failure was greater for LIMA sequential grafting than for Y grafts. This is incorrect. Of patients who underwent postdischarge angiography (n = 296), 7.8% (7/90) of LIMA–LAD grafts with sequential anastomoses to the diagonal artery and 10.3% (20/194) of patients without LIMA sequential anastomoses to the diagonal artery had occlusion (>75% stenosis or string sign) of part or all of the LIMA graft (3 possible segments: subclavian–Y anastomosis, Y anastomosis–diagonal, diagonal to LAD). All patients had composite Y grafts with the right internal mammary artery (RIMA) to supply the other coronary territories that required revascularization (coronary stenosis >50%). Of the total cohort of 1011 patients, 456 (45%) patients had grafts to the diagonal artery, including 356 (35%) of those being sequential anastomoses from the LIMA. We have shown that sequential perpendicular anastomoses from the RIMA limb of the Y graft to free-wall arteries (including the diagonal) have greater patency rates than end-to-side anastomoses, and so our preference is to perform sequential grafts where possible. The use of sequential parallel anastomoses from the LIMA to the diagonal was not associated with reduced LIMA patency to the LAD in our series.

For clarification of our results, 14.9% of 1011 patients had postdischarge angiography showing a >75% narrowing of any part of the LIMA/RIMA Y-graft system, including 3.1% with involvement of the LIMA, at a mean follow-up of 12 years.

All postdischarge angiography in our cohort was performed for investigation of symptoms or signs of myocardial ischemia, whereas it appears that 16% of the cohort from Singh and colleagues had purely elective angiography. Only 5.7% of their patients had angiography for evidence of ischemia in the LAD territory, suggesting that the large majority of their patients had angiography for investigation of separate graft dysfunction to other territories. In our cohort of 1011 patients, 96% of patients were completely revascularized from the LIMA trunk inflow, with the other 4% having predominantly separate arterial grafts to the right coronary system. It is likely that the greater relative patency rates for the various LIMA graft applications reported by Singh and colleagues are driven by the graft occlusion rates to other territories. Singh and colleagues did not report the total number of coronary bypass operations from which the 799 patients who underwent postdischarge angiography were derived, and therefore it is not possible to determine whether the rates of angiography were proportionate to the rates of the 3 graft configurations.

The analysis of patency rates in complex graft configurations where graft patency can differ from anastomotic patency is difficult to present in a concise manner. We thank Singh and colleagues for the opportunity to resolve some difficulties in the interpretation of our previous report.

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