Cardiovascular surgery

[gw22-e0607]

MID-TERM OUTCOMES OF GRAFT AND NATIVE VESSEL PATENCY AFTER CORONARY ARTERY BYPASS GRAFTING

Gim Hin Ho,[1] Yeong Phang Lim,[2] John Allen,[1] Chee Tang Chin,[2] Terrance Chua,[2] Rohit Khurana[2] *[1]Duke-NUS Graduate Medical School, Singapore; [2]National Heart Centre Singapore*

10.1136/heartjnl-2011-300867.662

Background Controversy still exists as to whether to bypass coronary arteries with moderate stenosis (50–70% stenosis). Bypassing a moderately stenotic vessel is considered a risk factor for subsequent graft stenosis and failure. It also facilitates the progression of disease in the native target vessels. Currently, mid-term data regarding bypassing moderate stenosis on graft patency is conflicting, and data regarding native vessel disease progression after bypass are scarce. We assessed the hypothesis that bypassing vessels with moderate stenoses results in greater graft failure and progression of native vessel disease compared to bypassing severe (>70% stenosis) disease.

Methods Baseline and follow-up coronary angiograms at a mean of 21.8±16.6 months (median 20 months) after CABG of 146 patients between January 2004 and 2010 were analysed by 2 independent and blinded investigators. We compared the patency of grafts used to bypass moderate (n=154) and severe (n=258) stenosis. Patency of moderately stenotic bypassed (n=154) to non-bypassed (n=125) native vessels (on both a within and between-patient basis) was also compared.

Results This retrospective, single-centre observational study constituted 146 patients, who for clinical need underwent a follow-up angiography at (mean 21.8 months) after CABG. 412 vessels were bypassed. Of these, 154 had moderate stenosis and 258 had severe stenosis. 125 non-bypassed moderate vessels were assessed. In the univariate analysis, 81.0% of grafts used to bypass severe stenosis were patent, compared to 70.8% used to bypass moderate stenosis (p=0.02). Progression of native vessel disease occurred in 55.8% of bypassed moderately stenotic vessels compared to 24.0% of non-bypassed vessels (p<0.01). Multivariate analysis revealed that bypassing moderate stenosis was associated with greater risk of graft occlusion (p=0.02, OR 1.776, CI 1.093 to 2.888) and bypassed moderate vessel was associated with greater risk of native progression (p<0.001, OR 4.023, CI 2.317 to 6.985).

Conclusion Bypassing moderate stenosis results in greater graft stenosis and native vessel disease progression.

Heart: first published as 10.1136/heartjnl-2011-300867.662 on 12 October 2011. Downloaded from http://heart.bmj.com/ on April 8, 2024 by guest. Protected by copyright.