

Complications and Clinically Proven Occlusions in 3,281 Consecutive Interrupted Coronary Anastomoses Performed Off-Pump in 815 Patients

Interrupted technique was used for the construction of coronary artery anastomoses in favorable early reports on long-term patency of coronary artery bypass grafts. Experimental and clinical studies have suggested that an interrupted anastomosis may be associated with better long-term patency. Retrospective STS database analysis of 1200 consecutive unselected patients who underwent off-pump coronary artery bypass grafting in four hospitals by a single surgeon revealed 3,281 interrupted distal anastomoses performed in 815 patients and 1,612 continuous distal anastomoses in 385 patients over an eight year period. STS data was used for comparative analysis. Clinically proven anastomotic occlusion data was obtained by analysis of the American College of Cardiology (ACC) databases for the same four hospitals over the eight year study period. Review of 42,238 cardiac catheterization procedures at the four hospitals revealed 205 patients out of the original group of 1200 (17.1%) who underwent 359 cath post-operatively..

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STS complication reports reveal few differences in mortality and morbidity between the two groups. Re-operation for bleeding was 1.1% in the interrupted group and 0.8% in the continuous group (p=ns). Analysis of post-operative cardiac catheterization data revealed that in 359 cath in 205 patients 116 occluded anastomoses were identified (2.4% of 4,892 anastomoses). There were 51 occluded anastomoses out of 3,281 interrupted (1.55%) and 63 occluded anastomoses out of 1,612 continuous anastomoses (3.9%) (p<0.10). Interrupted anastomotic technique does not appear to be associated with increased bleeding risk and may be associated with better anastomotic patency.