

Safety and Feasibility of Transradial Approach for Coronary Bypass Graft Angiography & Intervention

Suleiman, Khaled; Ilan Bushari, Limor; Feldman, Alexander; A Freedberg, Nahum; Bloch, Lev; Turgeman, Yoav

Heart Institute, Emek Medical Center, Heart Institute, Afula, Israel

Selective catheterization of coronary artery bypass grafts (CABG) might be more difficult and time-consuming from the radial artery as compared to the femoral route. This special patient subset has been either excluded or underrepresented in previous studies.

Objectives: To analyze the feasibility and safety of transradial catheterization in patients with previous CABG.

Methods: Single center, case series study. Catheterization data and outcomes during and post catheterization were collected prospectively from November 2005 through October 2011. The access site determined by the operator preference and patient suitability.

Results: We performed 1059 catheterizations in patients with previous CABG during the last 6 years: 572 (54%) via the transradial (TRA) and 487(46%) transfemoral approach (TFA). Mean age 66.4 ± 10.3 , female 21.9% and baseline characteristics were similar in both groups.

Angioplasty (47.4% vs. 45.4%), including saphenous vein graft intervention (14.9% vs. 16.2%), were similar. Total procedural time (39.7 ± 22.4 vs. 37.3 ± 23.9 min), fluoroscopy time (18.1 ± 13.9 vs. 15.3 ± 11.7 min), dye volume (135.3 ± 68.2 vs. 128.6 ± 59.6 ml) and used catheters/patient (3.4 ± 1.3 vs. 3.3 ± 1.1) were similar in both groups. Procedural failure and crossover to alternative access site were 4.4% in the TRA and 0.8% in TFA ($p=0.002$). Significant vascular access site complications (0.2% vs. 1.4%) were significantly lower ($p=0.02$) in the TRA. There was no periprocedural stroke or death in both groups. The duration of hospitalization was shorter (1.2 ± 0.9 vs. 1.9 ± 1.2 days, $p<0001$) in the TRA.

Conclusion: TRA for coronary bypass graft angiography and intervention is safe and feasible with similar outcome compared TFA. However less vascular complications and early discharge are the edit values of TRA.