

Transradial Approach for Cardiac Catheterization and Percutaneous Coronary Intervention in Elderly Patients

*Goldberg, A; Nordkin, I; Truchin, O; Hatib, I; Klein, R; Marmor, A
Sieff Hospital, Safed, Israel*

Background: Bleeding complications are increasingly recognized to portend adverse outcome in patients with ST-elevation myocardial infarction (STEMI). Elderly patients are especially prone to access site complications. Transradial approach (TRA) vascular access site complications in patients undergoing cardiac catheterization (CC) and percutaneous coronary interventions (PCI) when compared with transfemoral approach (TFA). There is a concern that technical difficulties using TRA in elderly patients can compromise the outcome, therefore many interventional cardiologists avoid using TRA in this group of patients.

Methods: We prospectively studied 242 patients age ≥ 75 who underwent CC or PCI using TRA (146 patients) and TFA (96 patients). Statistical analysis was performed on intention to treat basis. Procedural success was defined as successful completion of the intended procedure from the original access site. Vascular complications were hematoma > 10 cm, pseudoaneurism, AV fistula, need for blood transfusion or surgery.

Results: Baseline clinical characteristics were similar in both groups. Procedural success was achieved in 91.0% and 96.8% and angiographic PCI success in 97.8% and 97.9% of patients in TRA and TFA group respectively ($p=NS$). Use of contrast media was 145.1 ± 67.1 mL in TRA group and 157.0 ± 84.9 mL in TFA group ($p=NS$). Fluoro time (min) was 10.8 ± 7.0 vs. 9.7 ± 8.4 in TRA and TFA groups respectively ($p=NS$). Five patients (3.4%) had at least one vascular complication in TRA group vs. 10 in TFA group ($p<0.05$). All 5 complications in TRA group were hematomas, 3 of them in the femoral site after unsuccessful radial attempt. In TFA group there were two blood transfusions, two femoral pseudoaneurisms and two patients required surgery (one for closure of pseudoaneurism and one for acute thrombosis of common femoral artery).

Conclusions: In elderly patients, TRA approach has high success rate and leads to fewer vascular complications as compared with TFA.