Immediate and short-term clinical outcome of primary PCI at startup tertiary care cardiac hospital in Uttarakhand

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Introduction: Primary PCI (PPCI) for treatment of acute STEMI as a better modality than thrombolytic therapy is a well-established fact. Present study was conducted to evaluate the immediate and short-term clinical outcome of PPCI patients at our hospital presenting with acute STEMI.
Methods: All patients of acute STEMI who agreed for PPCI and patients with contra indication to thrombolytic therapy were enrolled for the present study, which was conducted from January 2011 to January 2015. After routine clinical evaluation and loading with dual antiplatelet therapy including Asprin (350 mg) and Clopidogrel (600 mg) or Prasugrel (60 mg), patients were taken up for PPCI. PCI was done through femoral route. Patients were evaluated for in hospital events, i.e., death, re-infarction, bleeding, stroke, and urgent CABG. Same parameters were evaluated up to 30 days of follow-up.
Results: Of 804 patients who underwent PCI during study period, 149 (18.6%) were PPCI cases. 140 (93.6%) were male, 9(6.4%) were female. 15 (10.1%), 33(22.1%) were diabetic, 41 (27.5%) were hypertensive. Median time from symptom onset to arrival in hospital was 3 h 15 min (7 h–30 min). Median door to balloon time was 2 h and 25 min (4 h–34 min). Presentation was anterior wall MI in 97 (65.1%), Inferior wall MI in 43 (28.9%), lateral wall MI in 7 (4.7%) and cardiogenic shock in 6 (4.2%). 81(54.4%) had SVD, while 38 (25.5%), 27 (18.1%) had DVD and TVD. LAD was infarct related vessel in 83 (55.7%), LCX in 19 (12.7%) and RCA in 43 (28.9%). Myocardial revascularization of infarct related artery could be achieved in 147 (98.6%) cases while 2 (1.4%) patients could not be revascularized and were subsequently thrombolysed. 4 (2.7%) patients died during hospital stay, out of which 2 (33.3%) were patients of cardiogenic shock. 5 (3.4%) had local site bleed while none had stroke or required CABG. No death, bleeding or stroke was noted during 30 days follow-up, while 1 (0.06%) had reinfarction requiring re-PCI. None required CABG.
Conclusion: Immediate and short-term clinical data of 2.8% mortality in PPCI cases of our hospital is comparable to the outcome of PPCI cases at other high volume centers. Though total ischemia time and door to balloon time were more because of logistic reasons requiring greater public awareness about myocardial infarction and need of PPCI.

Transradial vs. transfemoral coronary interventions in elderly diabetic patients – A single center experience in Bangladesh

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Aims: The transradial (TR) approach for percutaneous coronary intervention (PCI) seems to be superior to transfemoral (TF). However, it may be technically more challenging, especially in elderly patients with alterations in vascular anatomy. In the hands of experienced operators and high volume TR catheterization centers, TR coronary intervention offer improved patient comfort, decreased access-site complications, and decreased costs without compromising procedural success or long-term outcomes.
Objectives: We want to see the feasibility and safety of coronary procedures in elderly diabetic patients by either TR or TF vascular access. Procedural outcomes and in-hospital complications were compared according to vascular access method.
Methods and results: This study was conducted at Ibrahim Cardiac Hospital & Research Institute, Dhaka, Bangladesh among elderly diabetic patients who underwent coronary interventions over a period of 2 years (2013–2014).
A total of 414 consecutive diabetic patients with ≥75 years old underwent coronary angiogram during the study period. Among them, 98 patients underwent PCI through TR approach while 95 through TF approach. Clinical and angiographic characteristics were similar between groups. The amount of contrast volume used for PCI was higher in the TF group and was statistically significant (TR 143 ± 22.8 vs. TF 172 ± 17.4 ml, $p = 0.001$). The mean fluoroscopy time was also higher for the TF group and was statistically significant (TR 37 ± 16 vs. TF 47 ± 11.9 min, $p = 0.001$). No significant differences were observed between TR and TF methods for procedural success (97% TF vs. 96% TR, $p = 0.57$). No radial to femoral shifts and no hematomas were seen. No in-hospital complications were noted in any of the patients.
Conclusions: In elderly diabetic patients, TR coronary procedures are more feasible and safe even with similar procedural success without any in-hospital complications in contrast to TF vascular access.

Safety of radial vs. femoral artery access in coronary angiography

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Background: To evaluate the safety of radial versus femoral artery approach in routine coronary angiography practice.
Methods: We retrospectively evaluated consecutive patients in Ibrahim Cardiac Hospital & Research Institute, a tertiary care center, who underwent diagnostic coronary angiography (CA) over a period of 12 months. Procedure duration was calculated as time from initiation of local anesthesia to completion of the procedure. Contrast volume and fluoroscopy time were recorded.
Three thousand three hundred and forty-six patients who underwent a diagnostic CA were included in this study. The radial approach was used in 3030 patients (90.5%) and the femoral approach in 316 patients (9.5%). Comparing the radial and femoral approaches, fluoroscopy and procedural times were not significantly different (3.41 ± 1.14 vs. 3.85 ± 1.43 min, $p = 0.314$ and 11.87 ± 4.61 vs. 13.74 ± 6.33 min, $p = 0.180$, respectively). While contrast utilization during the procedure was significantly lower in the radial than the femoral approach (57.60 ± 22.42 vs. 69.52 ± 24.30 mL, respectively, $p = 0.03$).
Conclusion: Transradial coronary angiography can be safely performed as the transfemoral approach.