**RADIAL VERSUS FEMORAL ARTERY ACCESS FOR PERCUTANEOUS CORONARY INTERVENTIONS IN PATIENTS WITH ST SEGMENT ELEVATION MYOCARDIAL INFARCTION – A SINGLE CENTER EXPERIENCE**

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Background: There is conflicting evidence regarding superiority of radial vs. femoral approach in patients undergoing percutaneous coronary intervention (PCI) in ST elevation myocardial infarction (STEMI).

Methods: We conducted a retrospective study to evaluate the in-hospital and long term outcomes in all patients with STEMI that were treated with PCI from January 2003 through May 2010. Patients were divided into two groups based on radial vs. femoral approach for PCI. Primary endpoint was major adverse cardiac events which was composite of all cause mortality, recurrent acute coronary syndrome (RACS) and stroke /transient ischemic attack (TIA) at one year. Secondary endpoints were total door to balloon time (TDB) in minutes, in-hospital major bleeding, and 1- year incidence of RACS and stroke/TIA.

Results: A total of 314 patients qualified for the study (141 (44.9 %) radial group vs. 173 (55.1 %) femoral group). After controlling for differences in baseline characters, there was no significant difference in the primary end point between the two groups (radial 20.0% vs. femoral 17 %; p = 0.34). Mean TDB (± SD) was 143.3 (± 82.4) minutes in the radial group and 134.5 (± 72.1) minutes in the femoral group

(p = 0.14). There were no significant differences in in-hospital major bleeding (2.8% radial vs. 2.3% femoral; p = 0.14), and 1-year incidence of RACS (19.2% radial vs. 14.2% femoral; p =0.25) or stroke/TIA (0.8% radial vs. 1.5% femoral; p = 1.0).

Conclusion: Radial and femoral approaches are equally safe and effective for PCI in patients with STEMI.