



E1803
JACC April 5, 2011
Volume 57, Issue 14



SINGLE CENTER REGISTRY OF TRANSRADIAL VERSUS TRANSFEMORAL ACCESS FOR PRIMARY PCI

i2 Poster Contributions

Ernest N. Morial Convention Center, Hall F
Sunday, April 03, 2011, 3:30 p.m.-4:45 p.m.

Session Title: PCI - Acute MI

Abstract Category: 6. PCI - Acute MI

Session-Poster Board Number: 2506-560

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Background: Primary percutaneous coronary interventions (PPCI) via transradial approach (TRA) as alternative to transfemoral approach (TFA) in emergency cases has been questioned for feasibility and procedure time prolongation. The objective of this Single-Center Registry was to compare outcomes from TRA and TFA PPCI for all-comers in ST-segment elevation myocardial infarction (STEMI) patients.

Methods: The procedure and clinical data of 1679 consecutive STEMI patients undergoing PPCI using trans-radial (TRA) or trans-femoral (TFA) artery approach, over three years between October 2007 and September 2010, were subject of this Registry. We evaluated the rate of access site complications, initial access success, needle to balloon time, procedural time, fluoroscopy time, in-hospital mortality and overall major adverse cardiac and cerebrovascular events (MACE) at 1 month.

Results: TRA was performed in 1014 patients (60.4%) and TFA in 665 or 39.6% of all patients. Proportion of TRA was significantly changed over the time, from 25% of all procedures in year 2007 to 94% TRA in 2010. Access site complications were more frequent in TFA group (2.1% vs 0.2% in TRA group, $p < 0.01$). Needle to balloon time was 14.2 ± 8.2 vs. 14.3 ± 9.4 minutes ($p = ns$). Procedural time and all other time measures were not significantly different between groups. There was significantly higher mortality rate in the TFA group (6.6% vs. 3.1%). Rate of inhospital reinterventions was significantly higher with TFA (5.4% vs 2.3%). Overall MACE at 1 month was 3.5% for TRA and 8.4% for TFA group ($p = 0.001$). However, there were more patients with cardiogenic shock in the TFA group 9.3% vs. 6.2% in TRA group ($p < 0.02$).

Conclusions: TRA for PPCI can be the first and preferred access in all comers STEMI patients, with lower risk of access site vascular complications. After successful learning curve, there is no procedural time prolongation associated with TRA in PPCI.