GUIDELINE RECOMMENDED DOOR TO BALLOON TIME ACHIEVED IN TRANSRADIAL PRIMARY PCI: THE USEFULNESS OF A SINGLE DEDICATED RADIAL GUIDE CATHETER

i2 Poster Contributions
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Background: Transradial primary percutaneous coronary intervention (PPCI) in ST elevation Myocardial infarction (STEMI) is safe and increasing in popularity. There is limited data on cardiac catheterization laboratory to balloon time (CCL2BT), door to balloon time (D2BT) and the impact of the use of a single dedicated radial guide catheter in transradial PPCI.

Methods: We sought to determine the CCL2BT, D2BT, procedural and long term outcomes in transradial PPCI and the impact of using a single dedicated radial guide catheter on reduction of CCL2BT and D2BT. Between January 2005 to October 2009, 1440 patients underwent PPCI in our centre. Fifty three consecutive transradial PPCI cases (mean age 58 ± 12 years; 80% males) performed by a single experienced transradial operator were matched (age, sex and infarct related artery) with 53 transfemoral PPCI cases performed by six transfemoral operators. Data were collected retrospectively from institutional database, medical records and telephone follow-up.

Results: Puncture time, CCL2BT, D2BT, procedure and fluoroscopy time was 3.2 vs 2.7mins (p=0.25); 34 vs 30mins (P=0.04), 85 vs 87mins (p=0.50); 63 vs 51mins (p=0.01) and 18 vs 13mins (p=0.01) in the transradial and transfemoral arms respectively. When a single dedicated radial guide catheter (38/53 patients) was used, with the exception of the fluoroscopy time (17 vs 13mins; p=0.01), CCL2BT, D2BT and procedural times were comparable to transfemoral group (31 vs 30mins; p=0.70, 74 vs 87mins; p=0.19 and 59 vs 51mins; p=0.07). Procedural success was 98% in both groups. Forty month median follow up was achieved in 80% of patients. There was a significantly lower incidence of MACE (TLR, CABG, stroke or death) in the transradial group (18% vs 42%, p=0.03).

Conclusion: Transradial PPCI can achieve guideline recommended D2BT and may be associated with improved long term outcomes when compared against transfemoral PPCI. Whilst transfemoral PPCI is associated with a lower CCL2BT, and procedure time, this difference was not observed with the use of a single dedicated radial guide catheter in transradial PPCI.