

Trans Radial Percutaneous Coronary Intervention in Very Elderly Patients (Age 80 years or above) with Acute Coronary Syndrome: Immediate and Short term Outcome, Single Centre Experience.

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ABSTRACT

BACKGROUND

There are very few data about Percutaneous Coronary Intervention (PCI) in very elderly patients (VEP), especially through the Trans Radial (TR) approach.

OBJECTIVE

This retrospective cohort study was aimed at assessing the demographic & clinical characteristics, immediate and short-term outcome of VEP undergoing PCI.

METHODS

Retrospective analysis of Electronic Medical Records (CERNER) of patients admitted in our hospital between 2014 and 2016, who underwent PCI. The primary outcome was all cause mortality at 30 days and 6 months.

RESULTS

60 VEP (mean age 85.53 ± 4.6 year) underwent PCI at our institute (male 46.7 %; female 53.3 %), between 2014 and 2016. Of these, 41 patients (68.3%) had PCI for NSTEMI-ACS and 16 patients (26.7%) for STEMI. 27 patients (65.9%) with NSTEMI-ACS and 14 patients (87.5%) with STEMI underwent PCI through TR route. Cross over to TF (trans-femoral) required in 2 patients (4.4%).

Total one month and 6 months mortality rates were 10% and 15% respectively. One month mortality rate in TR and TF groups were 7.3% and 18.8% respectively. Mortality rate at 6 months were 7.3% (3 out of 41 patients) in TR group and 37.5% (6 of 16 patients) in TF group ($p=0.00496$).

6 months mortality of STEMI patients in TR and TF

groups were 21.4% (3 out of 14 patients) and 100% (2 out of 2) respectively ($p=0.0251$). Mortality of NSTEMI patients in TR and TF groups were 0% (none of 27 patients) and 28.6% (4 out of 14 patients) respectively ($p=0.0035$).

Co-morbidities and multi-vessel disease (MVD) were more prevalent in TF group compared to TR group, but these were not statically significant except past history of revascularization (past revascularization 31.2% in TF and 14.3% in TR group, $p=0.0455$; DM 62.5% and 58.5% $p=0.078716$; CVD 68.7% and 51.2% $p=0.23014$; CKD 37.5% and 36.5% $p=0.95216$; AKI 43.7% and 21.9% $p=0.09894$; MVD 56.3% and 39% $p=0.238$).

6 patients presented in cardiogenic shock; of these 4 had PCI through TF route. Hospital mortality in shock patients were 50% (1 out of 2 patients) in TR and 50% (2 out of 4) in TF groups respectively.

The present study has several limitations. This study was based on a single centre experience and the number of study patients were small, especially STEMI patients who had trans-femoral PCI. More unstable patients had trans-femoral PCI and study follow up was for short duration.

CONCLUSION

This study shows that common presentation of ACS in very elderly patient is NSTEMI-ACS and majority of patients are women.

Mortality is very high in VEP compared with younger patients. In both STEMI and NSTEMI-ACS, advanced age is independently associated with high mortality.

PCI is a safe treatment option for ACS in VEP and Trans Radial PCI appears to be a safer treatment option compared with trans-femoral PCI.