

A Comparative Matched-Analysis of Clinical Outcomes Between Transradial Versus Transfemoral PCI

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Background and Objectives:

Some trials support the transradial route of PCI, since it reduces access site vascular complications and bleeding. We sought to examine the effects of transradial interventions (TRI) on clinical outcomes in the 'real world' cohort of patients undergoing PCI at our institution.

Methods:

We analyzed 4,873 consecutive patients who underwent PCI and identified 373 patients who underwent TRI. Patients (radial vs. femoral) were compared using a propensity score analysis to best match between groups. Outcome parameters included total mortality, myocardial infarction (MI), repeat target vessel revascularization (TVR) rates, length of hospitalization and Δ Ht/Hb/Creatinine values during hospitalization. These were evaluated at 6 months and 1 to 3 years after PCI.

Results:

The rates of major adverse cardiovascular event (MACE) and its' constituents were similar in the transradial vs. transfemoral groups at all time intervals: 6.7% vs. 5.5% at 6 months, 10.3% vs. 10% at 1 year, 15.7% vs. 15% at 2 years, 15.7% vs. 16% at 3 years, respectively, ($p=0.6$). The length of hospitalization was shorter in the TRI group (2.87 ± 2.04 vs. 3.3 ± 3.12 , $p=0.023$). We did not find significant differences between the groups in the mean Δ Ht/Hb/Creatinine values during the course of hospitalization.

Conclusions:

In our 'real-world' of PCI practice, the TRI route of PCI is as safe and efficient compared to the femoral approach. TRI is associated with shorter duration of hospitalization.