

Transradial Approach for Bleeding Reduction in Patients Undergoing PCI with GPIIb/IIIa Inhibitors

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Percutaneous coronary intervention (PCI) and use of glycoprotein IIb/IIIa inhibitors (GPIs) are recommended in acute coronary syndromes (ACS), but are strong predictors of severe hemorrhagic complications, which, in turn, are associated with reduced survival. The transradial approach (TRA) represents a simple and effective solution to reduce vascular access site bleedings.

Objectives: To analyze the effectiveness of the transradial approach in reducing bleeding rates following PCI in patients with ACS treated with GPIs. **Methods:** Single center prospective study.

Inclusion criteria: Patients underwent PCI. **Primary endpoint:** Hematoma >5cm, pseudo-aneurysm or AV fistula during hospitalization and 1-week after.

Results: Three hundreds consecutive patients were included in the study, mean age 59.1 ± 10.9 years, 20% females. Of whom 50 (16.7%) patients with ACS treated with GPIs underwent PCI: 33 (66%) via radial artery and 17 (34%) via femoral artery. All patients were pretreated with aspirin and clopidogrel and received weight adjusted heparin during catheterization. Hematoma area after catheterization was $34.65 \pm 71.38 \text{mm}^2$ in the femoral group versus $5.45 \pm 16.02 \text{mm}^2$ in the radial group ($p=0.0282$). Primary endpoint was observed in 3/17 patients (17.6%) of femoral access: hematomas >5cm, $n=3$; pseudoaneurysm needed blood transfusion, $n=1$; fistulas, $n=0$. TRA was not associated with access site complications (OR 2.16, 95% CI 3.36-5.21, $P=0.0347$). The mean of the differences between hemoglobin before and 24 hours after the procedure was $1.02 \pm 1.35 \text{gr\%}$ in the femoral group versus $0.08 \pm 0.31 \text{gr\%}$ in the radial group ($p=0.0003$).

Conclusion: The transradial approach is a simple and effective solution to reduce vascular access site bleedings following PCI in patients with ACS treated with GPIs.