

## **Single Center Experience With Trans-Radial Approach for Primary PCI**

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**Background:** About 90% of the procedures in our Cath Lab are done as trans-radial approach. For several years we have extended this technique to primary PCI (PCI/TRA).

**Methods:** Since January 2007 we adopted the radial approach for all new patients with STEMI referred to primary PCI. Patients with weak radial pulse, severe dysrhythmia, CHF or hypotension were excluded. We used published world data of primary PCI by the trans-femoral approach, as reference for time table, fluoroscopy time and contrast media volume.

**Results:** 98 STEMI patients, 88 males, 10 females, mean age  $58\pm 12$  years, underwent primary PCI/TRA as a routine procedure (right radial all). IRA were: LAD: 42, LCX: 15, RCA: 41. Full patency restoration of the IRA was achieved in 100% of the patients. In 32 cases. We used thrombus aspiration devices. In 5 patients a bifurcation PCI with kissing balloon was performed successfully. Ten patients had slow reflow phenomenon resolved after IC Adenosine injection. In 4 cases IABP was inserted through the femoral artery due to low blood pressure and slow reflow. There was no major bleeding, pseudo-aneurysm or fistula. There was no need for blood transfusion. In one case (treated by Integrilin Heparin and Plavix) there was a large hematoma in groin (IABP insertion site) and small one in the forearm. There were 5 more cases with minor hematoma in the forearm. There was no cerebral ischemic event. Time table, fluoroscopy time and contrast media volume were better than the published world data for primary PCI using the femoral approach.

**Conclusions:** Following a meticulous learning curve, the trans-radial approach can be applied for primary PCI with high success rate, short door to balloon interval, low fluoroscopy time and contrast media volume, and low vascular and bleeding complication rate which increases the safety margin for this procedure that utilize high degree of anti-coagulation/aggregation medications so it can improves long term survival of these patients.