

Changing the Paradigm . Transradial Primary PCI Reduces Access Site Bleeding

Carlos Cafri, Arie Shalev, Sergei Yaroslavslav, Gabriel Rosenstein, Akram Abu Ful,
Jean Mark Wainstein, Miri Mirkin, Harel Gilutz, Doron Zagher, Reuven Ilia
Cardiology, Soroka Medical Center, Beer Sheva, Israel

Background: Bleeding after PCI is associated with adverse outcomes. When PCI is performed as an urgent procedure for STEMI the risk of bleeding is particularly increased due to the use of intense antithrombotic therapy. Transradial primary PCI might improve outcomes by decreasing access site bleeding .

Aim: To investigate the feasibility, efficacy and risk of access site bleeding complication of transradial primary PCI .

Methods: Retrospective study of 327 consecutive STEMI patients (2007-2008) treated with ptransradial (171 pts) or transfemoral (137 pts) primary PCI artery. Clinical, angiographic and angioplasty characteristics were analyzed. The frequency of access site bleeding was compared.

Results. Radial pts were younger (58 ± 12 vs. 62 ± 14 y. ; $p<0.01$) and had more peripheral vascular disease (9% vs.5%, $p=0.05$). They more often had Killip class I-II (98% vs.88%; $p<0.02$) and normal or mildly decreased LV function (54% vs. 42%; $p=0.01$). IABP was used more frequently in the femoral group (11% vs 5%; $p=0.05$). No differences were observed in risk factors, number of diseased vessels , culprit artery, lesion complexity , number of stents, vessels and lesions treated and volume of contrast. Iib/IIIa inhibitors were used in 45% of the radial patients and 42% of the femoral patients ($p=ns$). Fluoroscopy time was longer in the radial group (12 ± 8 vs. 10 ± 7 ; $p<0.03$) . The angiographic success rate was 91% and 88% in the radial and femoral groups, respectively ($p=ns$). The rate of access site bleeding was 6% in the radial group and 21% in the femoral group ($p<0.01$).

Conclusions: The efficacy of the transradial approach for primary PCI is similar to that of the transfemoral approach. Access site bleeding complications are significantly reduced using the radial approach. The impact of these findings on outcome should be further investigated.