Efficacy and Safety of the Transradial Approach for Saphenous Vein Graft Intervention

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Background: Transradial PCI reduces bleeding complications and increases patient comfort but its application in complex lesions or high risk patients has been questioned. Few data are available on the efficacy and safety of the transradial approach for the treatment of saphenous vein graft (SVG) stenosis.

Methods: 7764 patients had PCI at our institution between 1/05 and 12/09. We compared 140 patients who had transradial(TR) PCI of a SVG (age: 75±12 years) to 70 patients who had transfemoral (TF) SVG intervention (age: 69±12 years). Clinical, angiographic and interventional data as well as procedural results and complications were compared.

Results: Transradial patients presented more frequently with unstable angina (34% vs. 24%, p<0.01) or NSEMI (31% vs. 23%, p<0.01) and were treated with ad-hoc PCI (86% vs.68%, p<0.01). Transfemoral patients had more frequently pulmonary edema or shock on admission (3% vs. 0%, p<0.05) and moderate to severe LV dysfunction (33% vs. 27%, p=0.05). No differences were observed in fluoroscopy time (17 \pm 9 vs.19 \pm 9 min), dye volume (183 \pm 77 vs. 182 \pm 85 cc.); use of GP IIb/IIIa antagonists (31% vs. 27%); aspiration devices (4% vs. 7%); distal protection devices (14 vs. 11%). The angiographic success rate (90% vs. 81%) and rate of no reflow (6% vs. 9%) were also similar between the TR and TF groups. Transradial PCI was associated with a lower rate of access site bleeding (21% vs. 7%, p<0.01).

Conclusions. Transradial PCI of SVG stenosis is as effective as the transfemoral approach and is associated with fewer bleeding complications. This study supports a broader utilization of the transradial approach for SVG intervention.