Endovascular treatment of common femoral artery obstructions

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OBJECTIVE
To evaluate the clinical efficacy of endovascular therapy of symptomatic obstructions of the common femoral artery (CFA).

METHODS
Consecutive series of patients undergoing endovascular therapy of chronic CFA obstructions between 1995 and 2009 and who were followed systematically within a prospectively maintained database. Clinical assessment was based on current guidelines including ankle-brachial index (ABI) and was performed at baseline and the day of discharge and then repeated at 3, 6, and 12 months and annually thereafter. Technical success of intervention was defined as a final residual diameter stenosis of <30%. Sustained clinical improvement was defined as a sustained upward shift of at least one category on the Rutherford classification compared with baseline without the need for repeated target lesion revascularization (TLR) or amputation in surviving patients. Limb salvage was defined as absence of a major (ie, above the ankle) amputation. Survival analysis was performed using the Kaplan-Meier method.

RESULTS
Ninety-eight patients (38 women, mean age 72 ± 11 years) presented with 104 ischemic limbs, 20 of which (19%) were classified as having critical limb ischemia (CLI). Technical success rate was 98%. Stents were placed in eight CLI patients (40%) and in 20 claudicants (24%). Mean ABI improved from 0.28 to 0.54 (P < .001) in CLI patients and from 0.61 to 0.85 (P < .001) in claudicants. Mean follow-up was 16 months. Primary sustained clinical improvement rates at 3, 6, 12, and 24 months were 55%, 55%, 40%, and 0% in CLI patients and 81%, 75%, 68%, and 52% in claudicants, respectively. Limb salvage rates at 24 months were 94% in CLI patients and 100% in claudicants. After adjustment for confounding factors, presence of ischemic ulcers (hazard ratio [HR], 4.7; 95% confidence interval [CI], 1.49-14.85; P = .009), obstruction of the femoropopliteal arterial tract (HR, 3.9; 95% CI, 1.66-9.16; P = .002) and diabetes mellitus (HR, 2.3; 95% CI, 1.02-5.28; P = .045) were independently associated with lower rates of sustained clinical improvement.
CONCLUSIONS
Endovascular therapy of CFA obstruction is associated with high rates of sustained clinical success in claudicants with patent femoropopliteal outflow. Presence of ischemic skin ulcers and diabetes mellitus, however, are associated with impaired efficacy of endovascular CFA treatment.

type: journal paper/review (English)
date of publishing: 07-01-2011
journal title: J Vasc Surg (53/4)
ISSN electronic: 1097-6809
pages: 1000-6