

ABSTRACT NO. 05

**THE EXTENT OF LOWER EXTREMITY OCCLUSIVE DISEASE PREDICTS SHORT AND LONG TERM PATENCY FOLLOWING ENDOVASCULAR INFRAINGUINAL ARTERIAL INTERVENTION**

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**OBJECTIVES:** To determine the influence resting limb pressures and patent tibial vessel runoff have on short and long term hemodynamic and clinical success of infrainguinal arterial intervention.

**METHODS:** Ninety-nine limbs were treated with endovascular therapy from January 2001 to January 2005 with a mean and median follow-up of 338 and 293 days, respectively. Indications for treatment were claudication (41%, n=41), rest pain (22%, n=22), and non-healing wounds (42%, n=42). Interventions included femoral-popliteal angioplasty alone (54%, n=53), angioplasty followed by stent placement to improve technical results (25%, n=25), angioplasty and stent placement on separate lesions within the same femoral-popliteal system (8%, n=8), and primary stent placement (13%, n=13). Primary patency was considered lost when recurrent symptoms developed, ABI decreased following initial improvement, or a subsequent procedure was required. Kaplan-Meier analysis was used to evaluate patency.

**RESULTS:** In life table analysis of stratified data, patients with an ABI  $\geq 0.5$  prior to intervention had longer primary vessel patency compared to those with an ABI  $< 0.5$  ( $p=0.043$ ). Having one or more patent tibial runoff vessels was associated with improved patency for the first 24 months post-procedure ( $p=0.0012$ ). A trend existed with a photoplethysmographically derived toe pressure  $> 50$  mmHg resulting in greater patency ( $p=0.19$ ).

**CONCLUSIONS:** Patients with an ABI greater than or equal to 0.5 or those with one or more patent tibial vessel runoff have significantly higher hemodynamic and clinical success following endovascular therapy of the femoral-popliteal arterial segment.