

**#13 EVOLVING COMPLEXITY OF SURGICAL AORTO-FEMORAL
RECONSTRUCTION DONE FOR OCCLUSIVE DISEASE IN THE
ENDOVASCULAR ERA**

Martin R. Back, M.D., Brad L. Johnson, M.D.,
Murray Shames, M.D. , Dennis F. Bandyk, M.D.

University of South Florida, Tampa, FL

Purpose: Available endovascular and less-invasive surgical interventions have diminished the need for aorto-femoral bypass (AFB) construction for chronic inflow occlusive disease but have potentially increased their complexity.

Methods : We reviewed our results with aorto-femoral bypass done in 107 consecutive patients between 1997 and June 2002 (83 men, 24 women, mean age 62 ± 7 yrs) with chronic limb ischemia due to aorto-ilio-femoral occlusive disease. Peri-operative factors and surgical outcomes (<30 days) were evaluated and compared between patients requiring complex (redo AFB, need for visceral aortic clamp for juxtarenal occlusion, adjunctive visceral revascularization, or simultaneous inflow/outflow bypass) and conventional reconstructions by contingency table analysis.

Results : Aorto-femoral bypass was done for limb threat in 65 patients (61%) and 44 patients (41%) had failed previous inflow procedures (17 endovascular, 22 open, 5 endo & open). Operative complexity was evidenced by the need for redo AFB in 8 patients, suprarenal (13) or supra-mesenteric (6) aortic clamp and pararenal endarterectomy in 19 cases, adjunctive renal (10) or mesenteric (2) revascularization, or simultaneous construction of AFB and femoro-popliteal/tibial bypasses in 9 patients. Overall AFB operative mortality and major complication rates were 3.7% (n=4) and 29% (n=31), respectively. While not statistically different, mortality (P=.32) and complication rates (P=.35) were higher after complex AFB (5.6%, 35%) than for conventional reconstructions (2.8%, 26%). Pre-existing renal insufficiency ($Cr \geq 1.5$, n=9) was not predictive of post-operative renal failure ($> 2x$ pre-op Cr, n=7) (P=.4). Renal, mesenteric, or spinal cord ischemic complications (9.4%) occurred more commonly with complex reconstructions involving the visceral aorta (17%) but were not statistically greater than after conventional AFB (7.7%) (P=.28).

Conclusions : Our recent experience with aorto-femoral bypass suggests its increasing use as a tertiary revascularization modality. Despite added operative complexity and the necessity for visceral aortic manipulation, satisfactory clinical outcomes can be achieved.