20. Open Surgical and Endovascular Revascularization for Mesenteric Arteritis

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OBJECTIVE: To review the outcomes of open and endovascular revascularization for mesenteric arteritis (MA).

METHODS: We reviewed the clinical data of all patients who underwent revascularization for MA from 1984 to 2007. End-points were early mortality and morbidity, patient survival, freedom from mesenteric symptoms, and patency. Outcomes of open reconstructions were compared to the results of 162 patients who had open operations for atherosclerotic disease (ASO).

RESULTS: There were 12 female and 3 male patients with a mean age of 37 years (range, 15 to 66). Etiologies were Takayasu's arteritis in 6 patients, polyarteritis nodosa in 5, indeterminate in 3 and giant cell arteritis in 1. The superior mesenteric artery was affected in 12 patients, celiac in 9, renals in 6, and aorta in 4. Eight patients had active disease and 7 were in remission. Nine patients (60%) had chronic (8) and acute (1) mesenteric ischemia, and 6 patients with asymptomatic disease underwent mesenteric revascularization during other aortic-based operations. Thirteen patients (87%) had 8 mesenteric bypasses (7 aortic and 1 iliac), 4 had aortoplasties of which 2 had mesenteric patch angioplasties, and one underwent arcuate ligament release. Only two patients (13%) had SMA PTA. There were no early deaths. Three patients (20%) developed early complications after open reconstruction. Mean follow up was 41 months. One graft thrombosis in a patient with active disease was treated with redo bypass 74 months after aorto-mesenteric bypass. Patient survival was 100% at 10-years, similar to the 98% expected survival for the general population (P=0.69). In comparison to patients with ASO, open reconstructions for MA had similar freedom from mesenteric symptoms (88% and 89%, P=0.80) but lower primary graft patency at 4-years (85% and 92.2%; $p<0.01$).

CONCLUSION: Mesenteric arteritis is a rare manifestation of Takayasu's arteritis, poliarteritis nodosa, indeterminate or giant cell arteritis. Patient survival is excellent, similar to the general population. Open revascularization is durable and effective but role for endovascular therapy is undefined.