

AORTIC SURGERY

SYMPOSIUM IX

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Abstract 101

AXILLARY ARTERY PERFUSION FOR REPAIR OF TYPE A AORTIC DISSECTION

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The cannulation of the femoral artery in preparation for surgery of acute type A aortic dissection has been associated with many complications, including lower limb ischemia, perfusion of the false lumen with retrograde dissection, and neurologic injury. Use of the subclavian/axillary artery has been popularized as a way of reducing the risk of ischemia. Between January 1999 and March 2003, 12 patients underwent surgical repair of acute type A aortic dissection using the right axillary artery for arterial perfusion. In the last 7 patients, antegrade cerebral perfusion was performed. In all cases, the axillary artery was cannulated directly, and the ascending aorta replaced with a hemi-arch repair in 4. The aortic valve was preserved in all patients, with 6 commissural resuspensions and 2 commissural plications. Axillary artery peak flows ranged from 3.3 to 5.7 L/min. Two patients with preoperative right hemiplegia recovered postoperatively, whereas 1 case of paraparesis was observed 24 hours after surgical repair, with complete resolution after 15 days. The hospital mortality was 16.6% (2/12). Two patients required temporary hemodialysis; no neurologic or vascular complications involving the right upper extremities were observed. Our experience with axillary cannulation during aortic repair is encouraging and presents some advantages as the safe perfusion of the true lumen and the possibility of antegrade brain perfusion. Technical problems—dissection involving the axillary artery and the use of a prosthetic graft for cannulation—must be stressed and discussed.