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INNOMINATE ARTERY CANNULATION FOR PROXIMAL AORTIC SURGERY

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Abstract

Background. The aim of this study was to evaluate the efficacy and safety of innominate artery cannulation strategy with side graft technique in proximal aortic pathologies. Methods. A total of 70 patients underwent innominate artery cannulation with a side graft for surgery on the proximal aorta from 2012 to 2020. There were 46 men and 24 women with an avarage age of 56 ±13 years. The indications of surgery were type A aortic dissection in 17 patients (24.3%), aortic aneurysm in 52 patients (74.3%) and ascending aorta pseudoaneurysm in 1 patient (1.4%). The innominate artery was free of disease in all patients. Hypothermic circulatory arrest with antegrade cerebral perfusion was utilized in 60 patients (85.7%). 3 patients had previous sternotomy (4.2%). The most common surgical procedure was ascending aorta and hemiarch replacement in 34 patients (48.5%). Results. The mean cardiac ischemia and cardiopulmonary bypass times were 116+46 minutes and164+56 minutes, respectively. The mean antegrade cerebral perfusion time was 27+14 minutes. The patients were cooled between 22'C and 30'C during surgery. 30-day mortality rate was 7.1% with 5 patients. 1 patient (1.4%) had stroke, 1 patient (1.4%) had temporary neurologic deficit and 8 patients (11.4%) had confusion and agitation that resolved completely in all cases. There was no local complication or arterial injury was encounterd. Conclusions. Cannulation of the innominate artery with side graft is safe and effective for both cardiopulmonary bypass and antegrade cerebral perfusion. This technique provides excellent neurologic outcomes for proximal aortic surgery.

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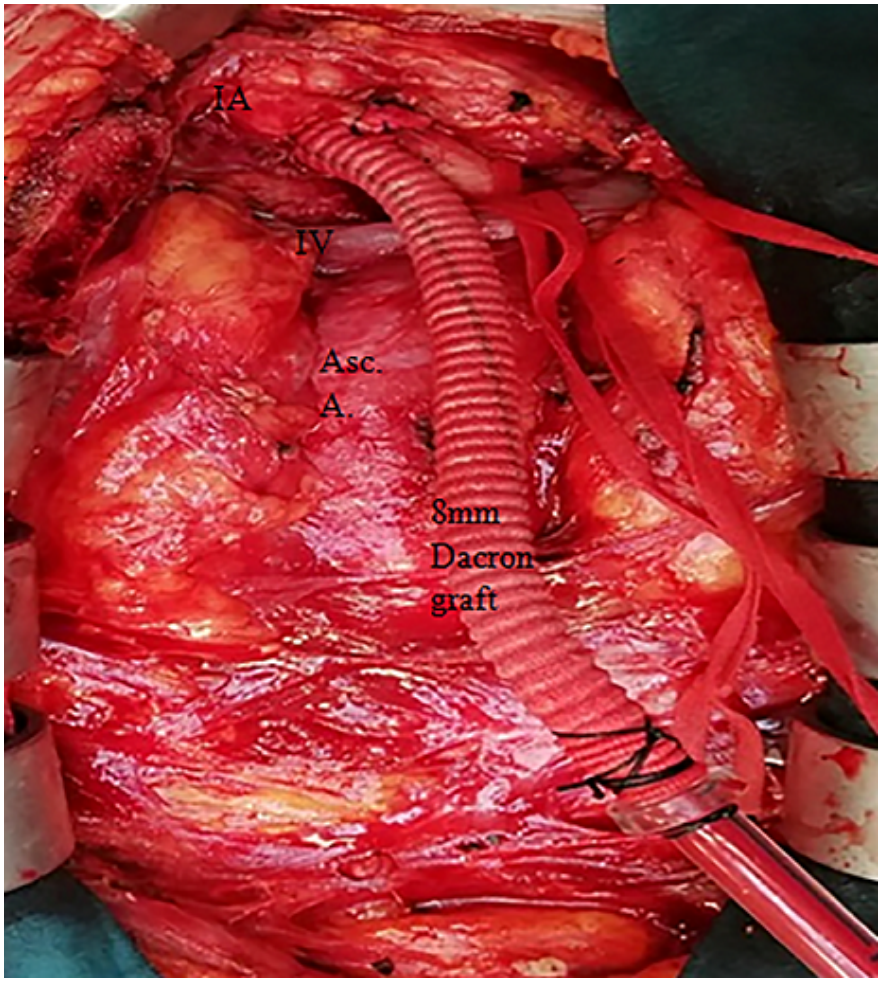

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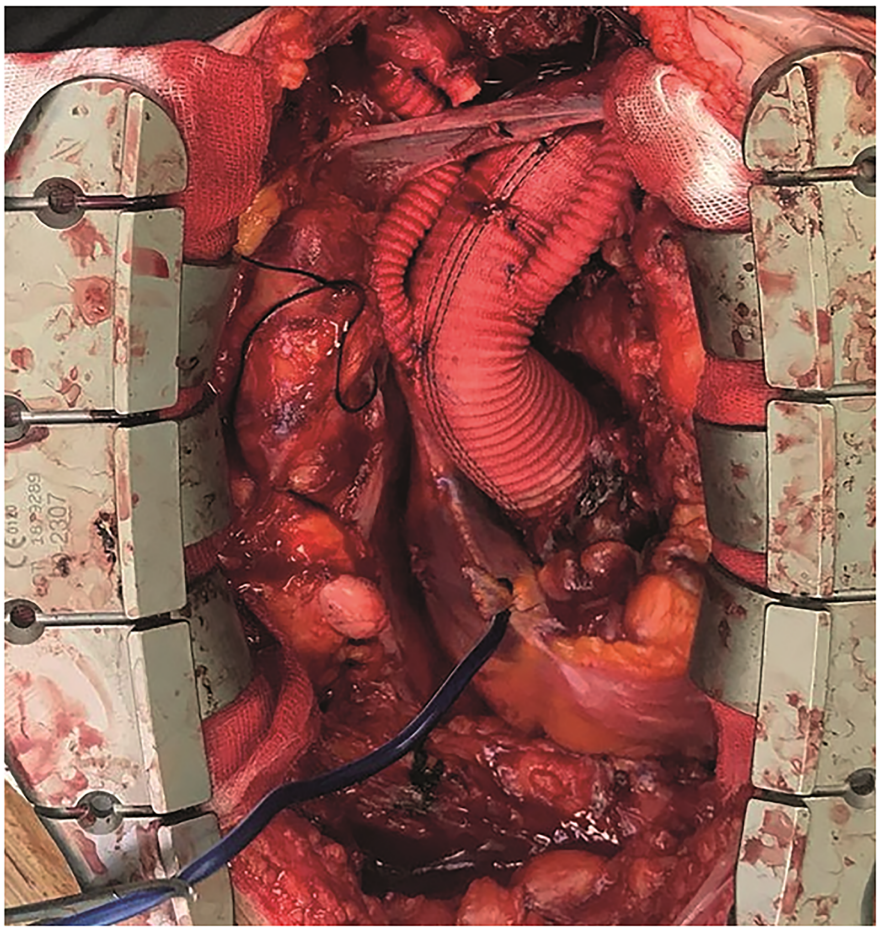

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