PERIPHERAL OR CENTRAL CANNULATION IN ACUTE TYPE A DISSECTION: DOES IT REALLY MATTER?
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Objectives: Acute Type A aortic dissection is still an emergency operation with high morbidity and mortality. In this acute situation, quick cannulation to the heart-lung machine and systemic cooling is often life-saving. However, the often easy access to the femoral vessels for cannulation leads to an arterial backflow in the descending aorta with the risk of plaque rupture and cerebral embolism.

Methods: All patients with acute Type A aortic dissection operated between January 2003 and December 2012 were evaluated for the type of arterial cannulation for initial bypass. Demographic data and outcome parameters were accessed.

Results: A total of 177 patients were operated with acute Type A dissection in our department in the last 10 years; 94 (53.1%) were initially cannulated in the central aortic vessels (79 ascending aorta, 14 subclavian artery, 1 carotid artery) and 83 (46.9%) in the femoral artery. The preoperative demographics between the groups are shown in the Table. All patients were comparable between age, gender, BMI, EuroSCORE and previous sternotomy. Bypass, X-clamp, circulatory arrest time and lowest temperature were similar. All patients had selective cerebral perfusion during circulatory arrest. From the outcome parameters cerebral infarction and psychotic syndromes were comparable between the cannulation groups. In addition 30-day mortality was similar. Only postoperative need for dialysis was significantly higher in the femoral cannulation group.

Conclusion: This single centre study with nearly 200 patients could show that an acute Type A dissection can be operated safely with central and peripheral cannulation with similar results and low mortality and morbidity.