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High percent of reinterventions in patients with aortic coarctation repair

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Aim: To study late outcome after surgical repair in adult patients with simple aortic coarctation.
Patients and methods: Forty-one patients (mean age: 28±8 years, female: n=12, male: n=29) who underwent surgical repair for simple aortic coarctation and have regular follow-up data available in our centre were recruited for a retrospective analysis. Patients with complex left-sided cardiac anomaly or interrupted aortic arch were excluded.
Results: Major associated congenital anomaly was bicuspid aortic valve (n=18, 44%). Mean age at first repair was 6 ±5 years. The type of first repair was: patch repair (n=25), end-to-end anastomosis (n=13) and interposition graft (n=3). At a mean age of 15±11 years, 46% of patients had reintervention (surgery: n=7, balloon dilatation: n=11, stent implantation: n=1). Reason for re- intervention was: re-coarctation (n=16), aneurysm (n=1), dissection (n=1) or aortectasia (n=1). One patient had aortic rupture at the time of percutaneous intervention requiring urgent operation, which was performed successfully. Twelve percent of patients required a third intervention (surgery: n=4 and endovascular graft stent: n=1). Bicuspid aortic valve or type of first surgery did not correlate with their need for reintervention. At the last follow-up 44% of patients were hypertensive and were on at least one antihypertensive medication (n=18). Also a high percent of patients were under investigation because of suspicion for recoarctation, as by arm-leg systolic blood pressure difference of >20Hgmm (53%) and systolic pressure gradient of > 30mmHg at the site of coarctation repair (32%). There were no patients with known or suspicion for coronary disease.
Conclusions: A high percent of young patients with history of aortic coarctation repair required reintervention, presents with hypertension and are at suspicion for recoarctation. Close follow-up in these patients is mandatory.