

Recurrent Coarctation after Surgical Repair for Coarctation of the Aorta- A-15 Year Retrospective Study

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Background:Coarctation of the aorta (CoA) accounts for 5-8% of all congenital heart defects. Although the current treatment strategies have evolved during the past decades, some patients still develop recoarctation with subsequent need for reintervention. We sought to assess the prevalence of reinterventions among children born between 2001 and 2015 with earlier CoA repair at the Skåne University Hospital.

Method:We conducted a retrospective survey of all children born between January 2001 and June 2015 who were surgically treated for CoA at our center. The patients were identified from The Swedish Registry of Congenital Heart Disease and from the surgical database. Data on birth characteristics, age at diagnosis, age at surgical or transcatheter repair, type of repair, blood pressure gradient arm-leg after the primary repair, and the number, type and age at reinterventions due to recoarctation were gathered from the hospital's digital database.

Results: A total of 288 patients (median age at surgery: 15 days) were identified. Thirteen % (n=38) of patients needed one or more reinterventions (surgical: n=3; balloon dilatation: n=35). The majority of these patients (n=33) underwent their first reintervention (surgical: n=3; balloon dilatation: n=30) during the first 2 years of life. No association was found between >20 mm Hg arm-leg blood pressure at hospital discharge and the need for later reintervention (p=0.3).

Conclusion:Approximately 1 of 10 patients who undergo surgical repair for CoA require reintervention. In most cases, reinterventions after surgery are needed during the first 2 years of life. Arm-leg blood pressure gradient early after CoA repair does not predict risk for reintervention.