

**Impact of antenatal diagnosis on outcomes after arterial switch operation for transposition of the great arteries in children**

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The objective of this study was to assess the long term outcome of children after arterial switch operation (ASO) for transposition of the great arteries (TGA) and compare patients with and without antenatal diagnosis.

Material and methods : retrospective analysis of all APS performed from 2009 to 2016 in patients with unrepaired cyanotic CHD. Demographics, clinical and biological data, surgical techniques, echocardiographic measurements, and outcomes were collected. Patients with antenatal diagnosis (AN group) and those diagnosed after birth (PN group) were compared.

Results : 364 patients were included (263 males) : 248 without VSD (68%) and 116 with one small VSD (32%). Antenatal diagnosis was made in 60,4% of the cases (37.6% < 2008, 76.5% > 2008). AN group included 220 patients and PN group 144 patients. Birth weight was 3207±511g, gestational age was 39.1± 1.6weeks (38.±1.6w in AN vs 39.5±1.5 in PN groups, p= 0.0016), birth weight was similar. Age at diagnosis was 2.3±6.2days in PN group. Preoperative ventilatory and prostaglandins support were less frequent in AN than PN (respectively 34% vs 82% , et 44% vs 70%, p< 0.0001). Time to Rashkind procedure after birth was 0.03±0.1 in AN vs 1.1±2.8days in PN, p <0.0001. Age at surgery did not differ between AN and PN groups : 7.2±6 vs 7.7±6.5days, p= 0.504. Long term follow-up was 9.2±4.8 years. Survival rates were 95.3% at 1 month, 94.8% at 3, 6 and 12 months and 94.5% at 2.5 years and up to 18 years after surgery. Twenty patients died (5.5%) : 17 early postoperative (4.7%). Time to death was 64.2±207.9days (0 to 919). Mortality was similar between both groups : 5% in AN vs 6.3% in PN, p= 0.609.

Conclusion : The results of his study showed that gestational age a birth was lower and time to Rashking procedure was shorter in neonates with TGA diagnosed antenatally than postnatally but age at surgery and outcomes were similar.