

The Recognition of Coarctation of the Aorta in Neonates and Small Infants and Its Relation to the Course of the Disease and the Outcomes.

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Introduction. Coarctation of the aorta is a common congenital heart disease but may be sometimes missed or underestimated in neonates and young infants. Our institution is the only clinics for pediatric cardiology and cardiac surgery in Latvia. We analyzed all the cases of aortic coarctations operated in our clinics within the first two months of life in the period of time from 2005-2010 to find out the time of diagnosis and its relation to the condition of the patient at the moment of the admission, the course of the disease and the outcomes. The birth rates in our country within years 2005-2010 were 22 422+/- 947 newborn infants/per year.

Methods. Retrospective analysis of the case histories of all the neonates and infants in the age group up to two months undergone surgical correction of the coarctation in our institution between January 1, 2005 and December 31, 2010.

Results. 45 neonates and infants presented with aortic coarctation. 27% of the cases were detected antenatally. 64% of the patients were sent by maternity hospital, but 36% after the discharge home (by general practitioner or hospital). In 73 % (n=33) cases congenital heart disease, but in 27% of the cases other diagnoses suspected (sepsis, pneumonia, feeding disturbances etc.). PGE1 was used in 100% antenatally suspected, but 48% postnatally detected cases, the need of inotropes in 8% prenatally, 21% postnatally detected cases. From antenatally detected cases 50% (n=6) were combined with complex cardiac lesions and the half of them with hypoplastic aortic arches, 25% (n=3) with VSD. There were 6 lethal cases (3 -heart insufficiency, 2 -septicemia, 1 -renal insufficiency).

Conclusions: Most antenatally detected coarctations are combined with other cardiac lesions and/or hypoplastic aortic arch therefore carries higher mortality rates. Postnatally after the discharge from maternity hospital detected cases correlate with older age, more frequent need of inotropes and ventilation, but with lower overall mortality rates. 27% of unrecognized cases in pre hospital stage are indicative of the need for further education for general practitioners and pediatricians working with neonates and infants, because delayed diagnosis may carry worsened surgical outcomes and increased length hospital stay.