

P-151

Long-term outcomes after Ross procedure in different age groups: a single - institution experience

*Klymyshyn Y. , Lebid I., Khanenova V., Romanyuk O. , Rudenko N., Artemenko Y.
Government institution «The Scientific-Practical Children`s Cardiac Center the Ministry of Health of Ukraine» Kyiv, Ukraine*

Treatment of patients in different age groups with congenital pathology of aortic valve is still one of the important problem in cardiac surgery. The Ross procedure is an alternative to the use of mechanical, biologic, and homograft valves for aortic valve disease.

Objective: To examine long-term outcomes after Ross procedure for twenty-year period.

Patients and Methods: During the period from 1996 to 2015 200 consecutive patients underwent Ross procedure at our institution. The mean age of patients was 145±101 months, 24% (n=48) of them - in the age of 5 years, 18% (n=36) - from 6 to 10 years, 30% (n=59) - from 11 to 17 years and 28% (n=57) older than 18 years. Aortic stenosis was the lesion in 103(51,5%) patients, aortic insufficiency in 68 (34%) and mixed lesion in 29(14,5%) patients. Indications for reoperations after Ross procedure on autograft were severe aortic insufficiency and aortic root dilatation and on RV-PA conduit was severe conduit stenosis. Long-term follow up at median was 11,5±6,5 years.

Results: There were 18 deaths (9%). Mortality in early postoperative period was 13 deaths (6,5%), in late postoperative period was 5 (2,9%). Long-term results followed in 170 (93,4%) patients. Ten (5,9%) patients required reoperations on the pulmonary autograft (4 repairs and 6 replacements), 32 (18,8%) patients in the RV-PA conduit (4 plasty and 28 replacement) and were performed 32 (18,8%) transcatheter procedure.

Freedom from any reinterventions after Ross procedure was 66.0%, 61.4%, 58.5 after 10, 15 and 20 years. Freedom from reoperation on autograft was - 98.9%, 95.4%, 93.7% after 10, 15 and 20 years. Freedom from reoperations on RV-PA conduit was 84.1%, 83.6%, 82.4 after 10, 15 and 20 years. Freedom from transcatheter procedure on RV-PA conduit was 83.7%, 82.5%, 82.5% at 10, 15 and 20 years.

Conclusions: The Scientific-Practical Children`s Cardiac Center have the highest amount of patients after Ross procedure in Ukraine. The Ross procedure is a safe procedure with low mortality at early and long-term postoperative period. Reoperations are due to progressive autograft root dilatation were rare in our patients. More frequent reoperations were on RV-PA conduit and require further study.