Complete repair of tetralogy of Fallot in first three month period

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Objective

Complete repair of tetralogy of Fallot in first three month period has confirmed the attainability of excellent results with elective neonatal surgery avoiding palliative procedures and their morbidity and mortality.

Methods

This is a retrospective review of the results of elective three month old infants who has underwent a complete correction of tetralogy of Fallot between 2000 and 2013. Sixteen neonates and infants with either symptomatic tetralogy of Fallot, symptomatic ventricular septal defect with pulmonary stenosis or symptomatic tetralogy of Fallot with valvar pulmonary atresia underwent complete repair. Mean age at repair was 35 +/- 24 days (7-90 days) and mean weight was 3.2 +/- 0.4 kg. Palliative shunts had previously been placed elsewhere in one patient. Twelve transannular patches were used for reconstruction of the right ventricular outflow tract. In seven cases patch was not necessary. One patient need a palliative fistula before the complete repair.

Results

There were no deaths in the hospital. One patient died during the follow up due to no cardiac cause. Actuarial survival at 12 years was 95%. Actuarial freedom from need for reoperation was 100% at 5 years. All patients are symptomatically well.

Conclusions

Complete repair of congenital heart disease in neonatal period, such us “arterial switch” or “Ross op.” has demonstrated excellent results. This experience with neonates suggests that, elective repair of tetralogy of Fallot could be reasonably undertaken during the first months of life. Palliative procedures are restricted to symptomatic patients with hypodevelopment of pulmonary artery.