Impact of age on early postoperative outcome in infants after primary repair of tetralogy of Fallot with a transannular patch - "Single Center Experience"


(1) Hospital of the Ludwig-Maximilians-University (LMU) Munich, Heart Surgery, Munich, Germany, (2) Hospital of the Ludwig-Maximilians-University (LMU) Munich, Pediatric Cardiology, Munich, Germany

Objectives: The optimal timing for surgical repair of tetralogy of Fallot (TOF) remains controversial. The aim of this study was to analyse the impact of age on early postoperative outcome.

Methods: From 2002 to 2013, in total 69 patients (median age 4.5 months, range 5 days - 42 months, median weight 5.9kg (range 2.5 - 13.0kg) with diagnosis of TOF underwent a transannular patch procedure at our center. 11 (16%) patients had previous palliation.

Methods:
Multivariate analysis was used for evaluation of ventilator time, length of ICU stay and mortality till 30 days postoperatively in three different patient groups (age: 0-3 months, 4-6 months, 6 months and older).

Results: Patients at the age of 0-3 months had a significantly (p< 0.05) longer ICU-stay (median 9.1d, range 0 - 68.9d) and time on ventilator (median 3.5d, range 0 - 21.3d) compared to older patients.

Age of 3-6 months: Median ICU 6.1d (range 0 - 12.2d); median time on ventilator 2.0d (range 0 - 8.1d)

Age 6 months and older: Median ICU 3.0d (range 0 - 31.4d); median time on ventilator 1.0d ( range 0 - 9.0d).

In the group 6 months and older one patient died due to cerebral infarction perioperatively and one redo surgery was necessary. Mortality was 0% in the other two groups. In all three groups were no sign of clinically relevant pulmonary valve regurgitation or stenosis in echocardiographic controls. All three groups showed good left and right ventricular functions on 30 days postoperatively.

Conclusion: This data promotes the fact that a younger patient age is associated with longer time on ventilator and longer ICU stay. 30 day mortality was not influenced.