

Health-Related Quality of Life After Repaired Tetralogy of Fallot is Related to Prematurity and Systemic to Pulmonary Artery Shunt Palliation

Svensson B. (1), Rosenkvist C.J. (2), Hanseus K. (1), Liuba P. (1)

Cardiology, Children's Heart Center, Skåne University Hospital, Lund (1) and Dpt of Paediatrics, Kalmar Hospital, Kalmar (2), Sweden

Objective: We sought to assess the relationship between health-related quality of life (HRQoL) and early life variables in children with previous surgical repair for tetralogy of Fallot (ToF). To this aim, we used the Pediatric Quality of Life Inventory (PedsQL) 4.0 Generic Core Scales which encompass physical functioning, emotional functioning, social functioning and school functioning.

Methods: Of a total of 224 patients with surgical repair for ToF between 1996 and 2013 at the Skåne University Hospital in Lund who were included in an earlier retrospective survey, we identified 48 patients (31 male) aged 9 to 18 (median 13) years with available self-reported PedsQL 4.0 data. The total score (TS, 100 highest) was expressed as median and 10-90th percentiles.

Results: The overall TS was 84 (54-99). There was no significant association between TS and the weight, age or bypass time at the time of repair ($p > 0.2$). Also there was no association between TS and the number of reoperations ($p > 0.3$). In the whole cohort, 11 patients were born preterm (< 37 weeks of gestation) and 13 patients were palliated with Blalock-Taussig shunt (BTs) prior to repair. The TS of patients with both prematurity and BTs ($n=6$) was significantly lower (69(33-76); $p < 0.05$) compared to the other 3 groups (fullterm & no-BTs: 82(60-99), fullterm & BTs: 93(54-100), and preterm & no-BTs: 86(70-93); Figure).

Conclusion: Systemic to pulmonary artery shunting prior to ToF repair in children born preterm appears to adversely influence HRQoL. Further larger studies are needed to confirm this association.

Figure

