

P-198

Long-term Survival, Exercise Performance and Quality of Life in patients after Fontan Surgery – Results From a Single Centre

Müller J. (1), Weber R.(1), Pringsheim M.(1), Hörer J.(2), Hess J.(1), Hager A.(1)

(1) Department of Pediatric Cardiology and Congenital Heart Disease, Deutsches Herzzentrum München, Technische Universität München, Germany

(2) Department of Cardiovascular Surgery, Deutsches Herzzentrum München, Technische Universität München, Germany

Objective: Several modifications of the Fontan procedure evolved throughout the last decades. This single-center study evaluates survival, as well as functional outcome on long-term follow-up in the context of the different surgical modifications.

Patients and Methods: All of the 308 patients born before the year 2000 and having undergone a Fontan procedure in our institution were included into the study. From October 2006 to February 2011 we prospectively studied 146 of the 215 eligible survivors with a median age of 20.7 years (13.8; 28.0 years, 58 female). Patients completed the health-related quality of life questionnaire SF-36 and afterwards they performed a cardiopulmonary exercise test.

Results: After a median follow-up of 11.7 years (6.2; 20.1) 91 (29.5%) patients had died and 5 patients (1.6%) had undergone heart transplantation. Survival free from transplantation after 30 day and 5, 10 and 20 years was 90.2%, 84.1%, 78.4% and 63.6%, respectively. The recent techniques improved survival ($p=0.007$).

Peak oxygen uptake was reduced to 23.8 ml/min/kg (18.9; 28.9 ml/min/kg) corresponding to 64.7% of predicted. There were no differences in-between the different Fontan types ($p=0.975$). Quality of life in the fields of physical functioning, general health and vitality were reduced in Fontan patients.

Conclusions: This study shows that patients profited from the experience and modification of the Fontan procedure in terms of short- and long-term survival due to a decrease in perioperative mortality. Further profits with regard to exercise performance and quality of life could not be detected.