

**Quality of life and social situation following Fontan operation (FO) vs. correction of tetralogy of Fallot (TOF)**

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**Introduction:**

Nowadays patients with a single ventricle as well as those with tetralogy of Fallot reach adulthood without cyanosis. Nevertheless, health and psychosocial problems emerge in the long-term. Therefore we conducted a comparative analysis of cardiopulmonary performance, quality of life and social situation in patients (pts) after FO and TOF correction.

**Patients:**

47 adults (m=57.4%) after FO (median 21 years) and 97 after TOF correction (median 24 years) answered standardized questionnaires from 2006-2012 on their quality of life (SF-36) and social situation. Spiroergometric tests performed around the same time an the maximal oxygen consumption (VO<sub>2</sub>max) was compared between patients after FO (n=27) and TOF (n=25).

**Results:**

VO<sub>2</sub>max was lower for FO pts. than for TOF pts. (median 51% vs. 64% of the norm) and correlated strongly ( $p < 0.005$ ) with FO with "physical limitations", "pain" and "vitality" and with the patient's own health satisfaction ( $r = 0.597$ ,  $p = 0.002$ ) and life satisfaction ( $p = 0.014$ ). On a scale from 1 to 7 high levels of satisfaction were reported (mean health: 5 for FO vs. 4.8 for TOF / mean life: 5.7 for FO vs. 5.24 for TOF).

Despite differences in social situation (long-term relationships: 47.8% of FO vs. 58.3% of TOF pts/ own children: 4.4% of FO vs. 33.3% of TOF pts), the levels of psychological well-being in FO pts were similar to those in TOF pts ("role emotional" FO 83.3+33.3 vs. TOF 82.1+32.8; "mental health" FO 69.4+17.5 vs. TOF 73.4+14 and "vitality" FO 55.6+21.4 vs. TOF 54.5+20.1).

**Conclusion:**

Despite physical and social limitations adults after FO achieve a high quality of life and life satisfaction. In many dimensions of the SF-36, particularly in the areas of psychological well-being, FO and TOF pts. show only small differences. It appears that quality of life and life satisfaction depend less on performance capacity than on attitude.