

## MP3-7

### Long-term follow up after single ventricle palliation: Comparison of different palliation methods

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**Objectives:** Patients with functional single ventricle physiology undergo different types of primary palliation at newborn age. This study analyzes patients characteristics and compares mortality and morbidity during long-term follow up between 4 palliation groups depending on primary surgical procedure.

**Methods:** Our single center retrospective study includes 459 consecutive patients who aimed at a Fontan circulation. Patients were operated between 1997 and 2014 and followed until the end of 2015 or death. 4 palliation groups were formed: Group A: no primary palliation needed due to balanced circulation; Group B: systemic to pulmonary artery shunt in case of severe pulmonary artery stenosis or atresia; Group C: pulmonary artery banding in case of pulmonary volume overload; Group D: Norwood procedure. 22,5% of the non-Norwood patients (32 pts.) had dextrocardia or heterotaxy syndrome.

**Results:** Group A: None of the 39 patients without stage I operation died during follow up. Group B: 71 patients received a mBTS (57 pts.), or other shunts (14 pts.) Total mortality rate was 12,68%. Group C: 32 patients needed a PAB. 21,88% of them died during long-term follow up. Group D: 317 patients underwent a Norwood procedure. The 3 stage associated mortality rates were 18,9%, 10,2% and 3,4%, respectively.

In total 280 patients are followed after the Fontan procedure with a mortality rate of 2,5% ( 7 pts.) during a median follow up of 4,21 years (range 2 months -14,5 years) after Fontan. 2 patients underwent heart transplantation and 271 patients are alive with Fontan physiology.

**Conclusions:** 69,06% of our single ventricle patients needed a Norwood procedure and this group showed the highest overall mortality rate of 28,71%, followed by group C (PAB) 21,88% and Group B (shunt) 12,68%. Patients without stage 1 procedure showed 100 % survival. The long-term results after the Fontan procedure are very good with more than 95% survival without HTX independent of primary palliation.