Early surgical outcome of a new modification for Senning procedure

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Objective: Since it was first described original Senning procedure was modified technically to prevent longterm problems such as baffle obstruction and leak and arrhythmia. According to lessons learned from different patient groups in litterature we developed another modification of this architectural surgery. The aim of this study is to evaluate early results of this modified technique.

Methods: Between 2009-2011 17 patients had modified Sennig procedure with diagnosis of simple TGA except one patient with baffle stenosis of previous Mustard operation. Median age and weight of our patients were 12 months (range: 3months- 27 years) and 8,3 kg (range:3.5-79 kg).

All operations were performed with hypotermic cardiopulmonary bypass and under cold cristalloid antegrade cardioplegia. Senning repair was performed without patch augmentation of the septum and creation of pulmonic venous chamber was done with sutureless technique as described by LaCour Gayet. Mean cpb and ischemic times were 76,3± 14,2 and 61,6 ± 31,8 min respectively.

Results: All patients were followed and mean follow up time was12,76 ± 7 months. There is no mortality and none of the patients had rhythm disturbance and baffle problems, mitral dysfunction or left ventricle outflow obstruction at hospital discharge or during follow-up.

Conclusion: We suggest that this modification of Senning procedure is a good technical alternative with encouraging early outcome. This method can prevent baffle obstruction by avoiding patch material and can have growth potential of venous chambers according to the age of patient.