MID-TERM OUTCOME OF A MODIFIED MUSTARD OPERATION FOR NEGLECTED TRANSPOSITION OF THE GREAT ARTERIES

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Background: Currently, the arterial switch operation (ASO) is the treatment of choice for the majority of patients with TGA. However, in low and middle-income countries, a significant number of patients present too late for ASO.

Methods: A new modified Mustard operation (MMO) designed to improve contractile and reservoir function was applied in 55 patients (figure); 42 (76.3%) were males. The median age at operation was 1.2 years (6 months -10 years). Preoperative oxygen saturation was 71% (54-85%).

Results: There were no early or late deaths during the follow up period (from 6 months to 3 years). In the immediate post-operative period, one patient developed temporary heart block and 5 had transient nodal rhythm. At last follow up, all patients remained in stable sinus rhythm. There were no late symptomatic active or passive arrhythmias. Seven patients developed asymptomatic narrowing of the superior channel, with one requiring balloon dilatation. There were no baffle leaks. Clinically all patients derived considerable improvement in their exercise capacity and general condition. 40 patients underwent follow-up MRI, which showed improved left ventricular filling and good right and left ventricular function.

Conclusion: The Mustard operation could play an important role in the management of the many neglected patients with TGA in the developing world. Optimization of the reservoir and contractile function of the atria might improve long term results.