

## **Palliative Arterial Switch Operation: A Review Of Fifteen Cases**

*Katewa, Ashish; Sharma, Rajesh*

*Fortis-Escorts Heart Institute, Pediatric Cardiac Surgery, New Delhi, India*

Palliative Arterial Switch Operation: A review of fifteen cases.

Background: This study is an examination of our unit's experience with palliative switch in univentricular and potentially biventricular hearts with transposition of great arteries. These patients were divided into three groups based on their physiology.

(a) Single ventricle physiology (8). All patients had univentricular hearts, transposition of great arteries, and systemic outflow tract obstruction (SOTO). Arterial switch is being recognized as an alternative to Norwood operation and modifications thereof. An arterial switch in these patients effectively converts the SOTO to pulmonary stenosis and thereby restricting pulmonary blood flow. There were 2 early deaths. Five patients have undergone Bidirectional Glenn. The advantage over the conventional Norwood procedure and its modifications is that it provides a valved ventriculo-pulmonary artery connection and thereby prevents diastolic run off.

(b) Borderline biventricular physiology (4). These patients had transposition of great arteries, ventricle septal defect and hypoplastic Right ventricles. They underwent arterial switch operation with pulmonary artery banding without ventricular septation thus retaining the option of a one and half or biventricular repair if the RV grows. There was 1 hospital death, 1 underwent one and half ventricle repair and the remaining two are awaiting subsequent management.

(c) Biventricular physiology (3). These patients had transposition of great arteries and multiple ventricular septal defects which could not have been closed successfully without a mutilating ventriculotomy. The arterial switch with pulmonary artery band converts the transposition physiology to a VSD physiology which allows effective banding without increasing the cyanosis. All patients made uneventful recovery. One underwent subsequent VSD closure and pulmonary artery plasty. The remaining two are asymptomatic and awaiting corrective surgery.