TETRALOGY OF FALLOT: EXPERIENCE & RECENT ADVANCES IN ANESTHETIC MANAGEMENT

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DOI: https://doi.org/10.52340/9789941519109.18

Key Words: Congenital, Fallot, Tetralogy, Transatrial

Abstract

Introduction: Tetralogy of Fallot (TOF) is one of the most common cyanotic congenital heart disease in the world. [1] Classic tetrad was described elaboratively by Étienne-Louis Fallot in 1888. [2] It include ventricular septal defect (VSD), pulmonary stenosis (PS), right ventricular hypertrophy (RVH) & overriding of aorta. Patients have various degree of cyanosis depending on right ventricular outflow tract obstruction (RVOT).
Transatrial approach is considered better than ventriculotomy in terms of immediate and long term survival. [3,4,5]
Modified BT shunt is performed before definitive surgery sometime. But the long term outcome is similar to primary repair. [6,7]
Mortality & outcome depends on transannular patch application, RV – PA pressure gradient, preop oxygen saturation, size of PA & pulmonary valve, prematurity, small body size etc. [8,9,10]

Objective: To analyse the outcome of Tetralogy of Fallot patients operated in Manmohan Cardiothoracic Vascular & Transplant patients.

Method: This is a retrospective study of outcome of 4 years' duration of 67 patients operated for Tetralogy of Fallot (TOF) surgery in Manmohan Cardiothoracic Vascular & Transplant Center, Maharajgunj Medical Campus, Institute of Medicine, Tribhuvan University, Kathmandu, Nepal. Data were collected from the records of Cardiothoracic & Vascular Anesthesiology department, cardiac catheterization lab & from the record obtained from record section of the hospital.
Results: Among 67, 42 (65%) were male. Mean age group of patient was 4.02 ± 2.11 yrs (mean ± SD). 23 patients had associated anomalies eg. ASD, DORV, Diaphragmatic palsy, PDA etc. 11 patients had aortic override >50%. Pulmonary stenosis gradient was 82.43 ± 11.48 mm of Hg, preop oxygen saturation was 80 ± 5 %, McGoon's ratio was 1.65 ± 0.19 (Mean ± SD). 19 (43%) patients had balloon pulmonary valvotomy. There were total 16 mortalities, among which 2 patients died in the day of surgery, 6 patients died in 1st POD & 1 patient died in 24 POD.

Conclusion: TOF is one of the most common cyanotic congenital heart disease in Nepal too. Outcome of patient depends on several factors like associated anomalies, preop oxygen saturation,

pulmonary stenosis to other centers. Overall mortality is higher and long term follow-up of the patient should be done.

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