

Anaesthetic management of tracheo-oesophageal fistula with pulmonary atresia, pda with single ventricle with tetralogy of fallot

Manpreet Singh

Northwick Park Hospital, UK

Abstract

Introduction: Esophageal atresia (EA) with or without tracheo-oesophageal fistula is a common neonatal emergency which may be associated with major life incompatible cardiac abnormalities¹. Survival of such neonate depends on stabilization and proper resuscitation followed by postoperative care.

Case Report: We came across a 4 days old male baby, with diagnosis of EA and distal TEF, posted for right thoracotomy with primary repair under GA. On preoperative evaluation baby had respiratory distress, frothing from mouth & was hemodynamically unstable on dopamine with oxygen saturation (Spo₂) of 85% on room air. Intraoperatively surgery was uneventful but baby not able to maintain Spo₂ even after ligation of fistula. At time of reversal of neuromuscular blockade, he had active movements, was maintaining SpO₂ of 88% with 100% O₂ & on dopamine. After extubation he maintained SpO₂ of 85% on nasal prongs when shifted to PACU. But after 3 hours of surgery, his Spo₂ started falling & developed persistent cyanosis, so trachea was intubated with chest tube insertion on right side done suspecting pneumothorax or hemothorax or pleural effusion which were subsequently ruled out, emergency 2 D echocardiography showed large VSD, pulmonary atresia, PDA, single ventricle with Tetralogy of Fallot. He was started on PGE₁, Alprostadil & dobutamine because of worsening hemodynamic instability shifted to NICU but was not able to maintain Spo₂>75% with mechanical ventilation. His general physical condition deteriorated over next 2 days and died due to respiratory failure and cardiac arrest.

Discussion and Conclusion: EA- TEF is a major congenital anomaly and when it is associated with life incompatible anomalies like single ventricle along with PDA, VSD and Pulmonary atresia, it becomes a night mare and a real challenge to both pediatric surgeon and anaesthesiologists^{1,4}. Success in survival of neonate with EA-TEF is attributed to improved neonatal care, anesthesia and better understanding of neonatal physiology.

Biography:

Dr. Manpreet Singh MBBS MD Anaesthesia EDAIC is a Speciality Doctor working in the department of Anaesthesia and Intensive care in Northwick Park Hospital associated with London Northwest University since January 2019. Before that, he was working in the department of Intensive Care in the Indraprastha Apollo Hospitals, New delhi, India. He has published 2 papers in reputed journals and wants to pursue further research and training in the field of Anaesthesia.

Speaker Publications:

1. Anaesthetic management of tracheo-oesophageal fistula with pulmonary atresia, pda with single ventricle with tetralogy of fallot



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