Fibre Optic Endoscopy for Diagnosing Leakage Cause After Esophageal Atresia with Tracheoesophageal Fistula Repair

Aim of study

EA-TEF with estimated life birth of 1 in 3500 to 1 in 4500, remains an epitome of neonatal surgery. The survival depends upon many factors, those patient related include birth weight, associated anomalies and general condition while surgical factors include esophageal gap, pulmonary condition and septicemia. We managed endoscopically a case of leakage due to chest tube migration inside the esophageal anastomosis.

Methods

A full term male neonate weighing 2300 grams, hospital delivered presenting on 5th day of life with EA-TEF associated with mild chest crepitation. Patient was admitted, resuscitated and received total parenteral nutrition and antibiotics. Chest physiotherapy and nebulization were done. Echocardiography showed PFO with left sided aortic arch. Operation was done on 7th day of life through an open approach with right transpleural thoracotomy on the fourth space and azygous was divided. Fistula was closed with 4/0 proline sutures in piecemeal manner. Primary anastomosis was done with 5/0 vicryl sutures after dissecting upper pouch. Intercostal tube was inserted. Contrast was done 10 days later revealing leakage of 90% of water-soluble dye in intercostal tube which was seen migrating to anastomotic site. Upper endoscopy was done with 5.9 mm flexible endoscope and anastomosis was approached very gently with minimal air insufflation and suction. The tip of chest tube was seen traversing the anastomosis and inside esophageal lumen. The tube was withdrawn 2cm outside with obvious adjacent track to esophagus. Nasogastric tube was inserted along guide wire.

Results

Dramatic response occurred after 3 days and contrast was repeated under fluoroscopy showing about 20% leakage. No leak was detected on third contrast after 6 days. Oral feeding was started.

Conclusion

Upper endoscopy can be a very useful tool with leaking EA-TEF leaking repair. We suggest future injection of fibrin glue with endoscopic assistance rather than its injection through chest tube.

Biography



Khaled Salah Abdullateef is a pediatric surgeon who has completed his PhD thesis addressing “Cosmetic outcome after feminizing genitoplasty in female children with CAH”, from Cairo University School of medicine. He is an active participant in many pediatric surgery teams including DSD team, esophageal endoscopy, manometry and PH impedence team, minimally invasive surgery team and pediatric plastic surgery team in biggest pediatric hospital in Egypt. He has published more than 15 papers in reputed journals and conferences.