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Management of trachio-esophageal fistula

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Background: The aim of this study was to present the authors' experience in management of tracheo esophageal fistula, regarding when to perform immediate primary repair, delayed, primary repair and staged repair.
Materials and methods: Forty five patients were operated upon in Cairo university children hospital and Benha children hospital (bench) from June 2004, until September 2007. Patients were divided into three groups:
Group 1: 22 cases of TEF with distal fistula had one stage primary esophageal repair. All cases in group one presented within the first 24 hours after birth and was operated upon within 24-48 hours after presentation.
Group 2: 15 cases of TEF with distal fistula had a delayed primary repair.
In group 3: 8 cases presented, 5 of which were pure EA, 2 per term cases were TEF below 1500 grams, and one full term baby diagnosed as EA, proved later to be EA with a fistula connected to upper pouch. Age of presentation in this group ranged between (1-8) days. Patients were followed up for 3-39 months.
Results: in group 1 all cases underwent one stage esophageal anastomosis and 2 cases with associated imperforate anus underwent a defunctioning sigmoid colostomy in the same stage, followed by a posterior sagittal pull through procedure in a later stage.
In group 2, all cases had one stage delayed primary repair.
In group 3, all cases had esophagostomy and gastrostomy first stage procedure, five cases were pure EA, one of which was EA associated with imperforate anus underwent a defunctioning sigmoid colostomy in the first stage repair. One case was diagnosed as EA, and proved to be TEF with a fistula connected to upper pouch. One case was pure EA, serial gapograms showed that the distance between the two pouches would permit esophago esophageal anastomosis, which was performed in the second stage, 2 pre-term cases below 1500 grams, who developed sever intra operative respiratory distress underwent esophagostomy and gastrostomy with tying a thick silk suture around the abdominal esophagus to close the fistula from the abdomen. Regarding second stage repair, one case underwent esophago esophageal anastomosis, one case underwent primary esophageal repair with closure of the fistula connecting the upper pouch to the trachea. Both cases were followed with gastrostomy closure, after assessment of the success of the esophageal repair with contrast studies. One case had a colon transposition second stage

repair followed by gastrostomy closure, after assessment of the success of esophago colic anastomosis with contrast study, and one case associated with imperforate anus underwent a posterior sagittal pull through, waiting for a gastric pull up procedure for second stage.

Conclusion: TEF is not a one stage curable disease, as nearly 50% of cases had late postoperative, morbidities, many of which required further surgical interventions.