Tracheoesophageal Fistula: Associated Abnormalities

A tracheoesophageal fistula (TEF) is a congenital or acquired communication between the trachea and esophagus. Males are slightly more affected, and most patients are diagnosed immediately following birth due to impassage of NG tube. Incidence 1:3000. 86% are type IIIB (esophageal atresia with a distal TEF), and 8% are type I (discontinuous esophagus with no fistula). Acquired TEFs occur secondary to malignant disease, infection, ruptured diverticula, and trauma. First described in 1697 by Thomas Gibson. First operation done in 1888 by Charles Steels, a London surgeon. First successful primary repair done in 1941 by Cameron Haight.

Types

- Esophageal atresia with distal TEF (aka "proximal pouch, distal fistula"): 85-95%
- Isolated esophageal atresia without TEF (pure atresia): 5-10%
- Isolated TEF (H-type) between an otherwise intact trachea & esophagus: 2-6%
- Esophageal atresia with proximal TEF: <1%
- Esophageal atresia with proximal and distal TEF: <1%

Associated developmental anomalies: 60-65% will have at least one other abnormality

Include Down syndrome, duodenal atresia, and cardiovascular defects. Associated with the VACTERL syndromes. (VACTERL = vertebral, anal, cardiac, TE, renal, and limb abnormalities) and 15-25% of these infants will have a congenital heart defect

References: