Tracheo-Oesophageal Fistula and Oesophageal Atresia

Antenatal scan may show polyhydramnios & an absent fetal stomach bubble. Also the fetus is small for dates.

- TOF 85% cases.
- Oesophageal atresia 10% cases.
- H Fistula 4%.
- Oesophageal Atresia is more likely to be associated with a long gap.

- Post surgery complications include anastomosis leak or stricture.

- Later problems are: Tracheomalacia 20% cases, Recurrent respiratory infections.

- Gastro-oesophageal reflux is very common. Oesophageal dysmotility can cause swallowing & choking difficulties.

Presentation:
- Infant who is mucousy or bubbly at birth.
- Infant may cough or choke.
- Infant is frequently small for dates.
- Maternal history of polyhydramnios.
- Naso-gastric tube fails to pass beyond 10 cms (it normally passes to 16-18 cms).
- Chest XRay: The NG tube is curled back in the oesophagus. Look for air in the stomach- if present it indicates a tracheo-oesophageal fistula.

Management:
- Suction the oropharynx
- Monitor O2 saturation. Give oxygen if <95%
- Pass a size 8 Ripogle tube via the mouth into the upper pouch and start continuous suction (avoid size 6 Ripogle tubes as they tend to kink)
- Commence IV Fluids

- 50% cases have other anomalies. Examine particularly for anal atresia and cardiac anomalies.
- Other anomalies more likely in oesophageal atresia rather than TOF
- Transport the infant for neonatal surgery

Spitz Classification
- Gr1 BW>1500g, no cardiac anomaly Survival 97%
- Gr 2 BW<1500g no cardiac anomaly Survival 80%
- Gr 3 BW<1500g with cardiac anomaly Survival 22%

Investigations:
- ECHO 35% have a cardiac anomaly.
- Renal Ultrasound 20% have a renal anomaly.
- Additional GIT anomalies in 20% cases.
- Limb x-ray if any deformity noted.

VACTERL
- Vertebral defects
- Anal Atresia
- Cardiac Anomaly
- TOF
- Renal anomaly
- Limb deformity

- Other associations include DiGeorge Syndrome.

- For long gap complex oesophageal atresia the Forker technique is now being used in selected cases. Traction sutures are applied to the 2 ends of the oesophagus in order to narrow the gap.
References:

5. Oesophageal Atresia. www.patient.co.uk

This care pathway has been produced by the National Paediatric and Neonatology Clinical Programme. It is aimed at medical, nursing and allied health professionals working in Irish neonatal units.