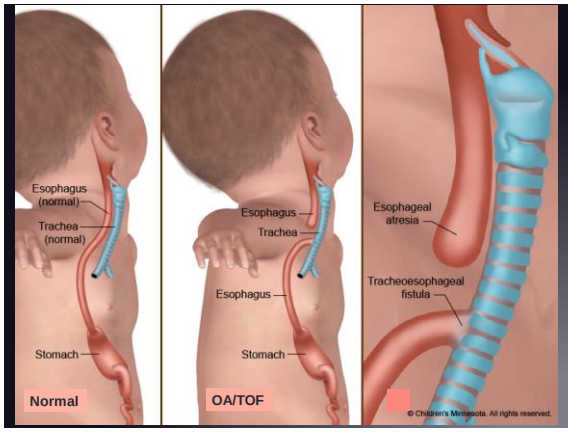
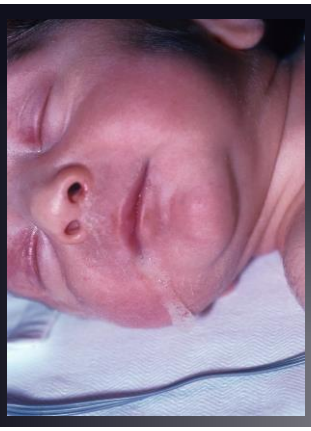
Oesophageal atresia

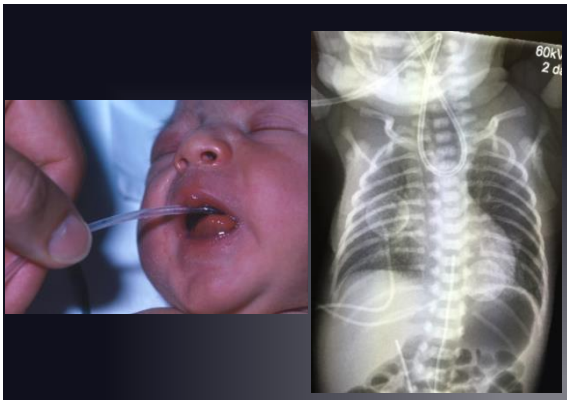
Nurture
NNCA Conference 2017

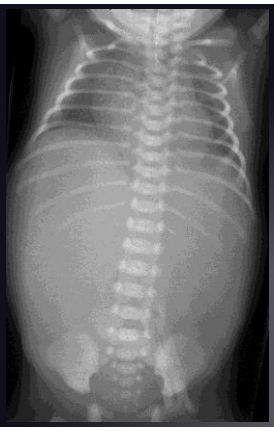
NEW ZEALAND NURSES ORGANISATION

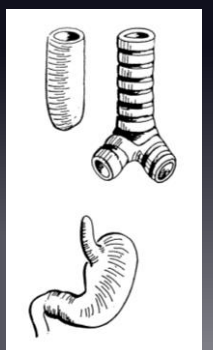
Neonatal Nurses College Aotearoa

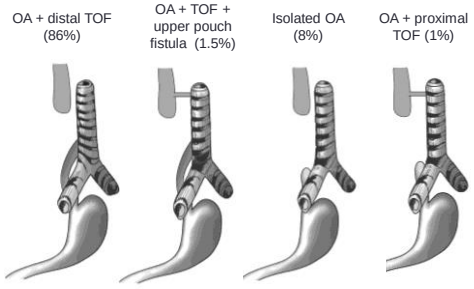




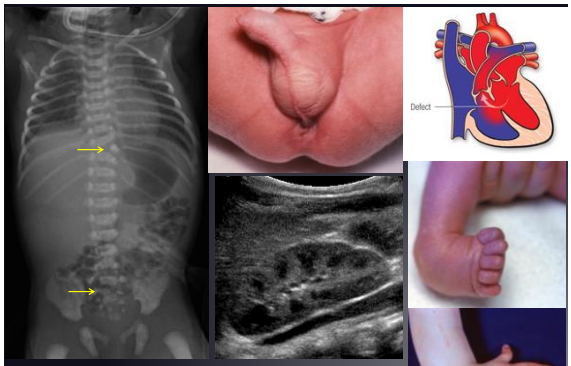




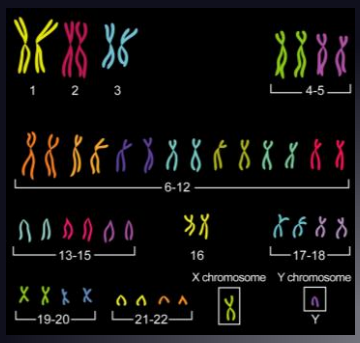




Taghavi & Stringer 2017



Other anomalies? eg VACTERL



Chromosomal anomalies/genetic disorders ~4%

Incidence: 1:3-4000 live births so ~18/yr in NZ

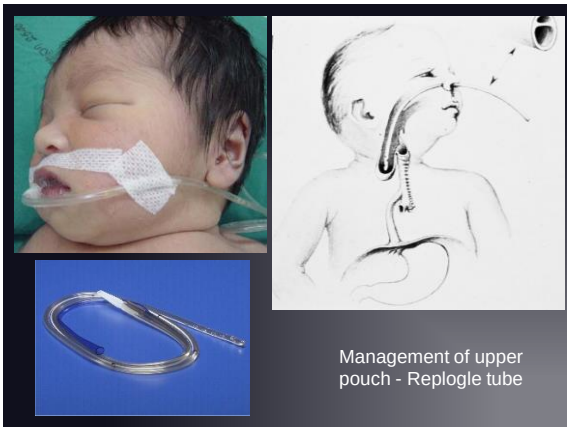
Aetiology: sporadic (MZ twins 2.5% concordance), recurrence 1%

Other anomalies >50% e.g. VACTERL, cong heart disease

Antenatal clues: polyhydramnios & absent/small stomach

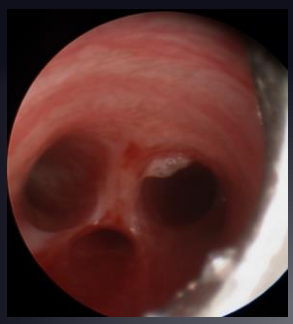
Postnatal: mucousy baby who chokes/ coughs when fed

Diagnosis: pass a 10Fg gastric tube and take CXR + AXR

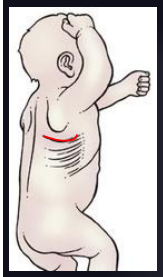


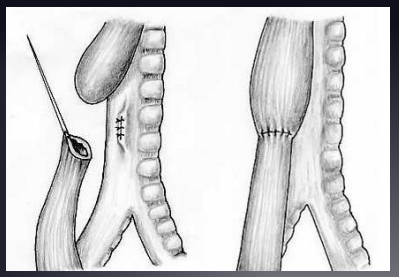
Management of upper pouch - Replogle tube

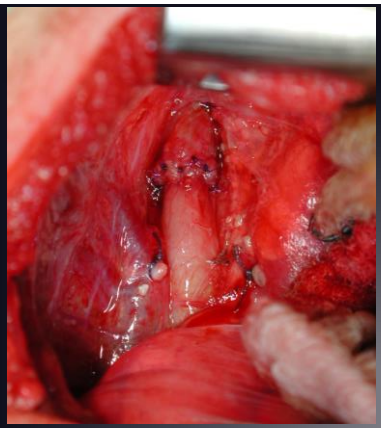
- Nurse head up ± semi prone to keep upper pouch empty
- Transfer to NN surgical unit promptly (urgently if respiratory distress or needing ventilation)
- Invs: echo, X-rays, renal US etc
- Non urgent 1º repair if stable



Surgical management



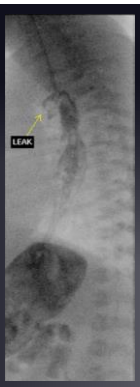




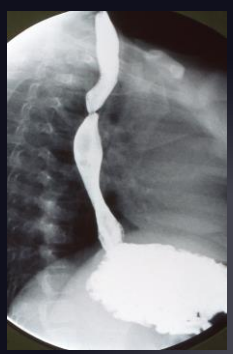
Uneventful recovery in many – extubation, temporary tube feeding and then oral feeding

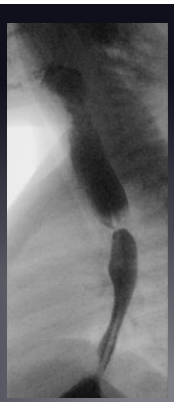
Survival (Spitz classification)
Birth wt.>1500g and no major cardiac anomaly 98%
Birth wt. <1500g or major cardiac anomaly 82%
Birth wt. <1500g plus major cardiac anomaly 50%

.....and improving



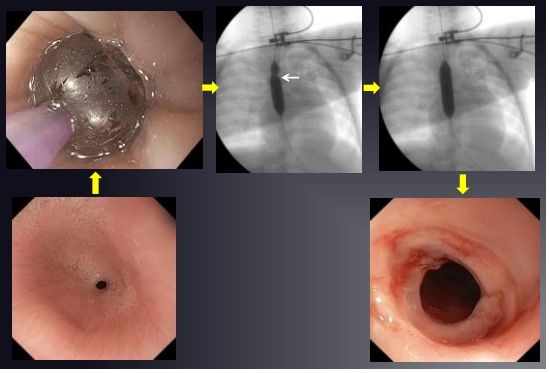
Anastomotic leak – clinical/radiological

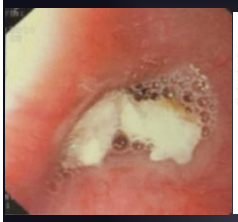


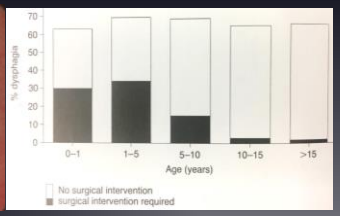


Anastomotic stricture

Stricture dilatation

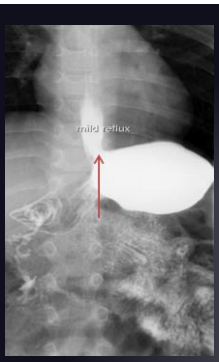


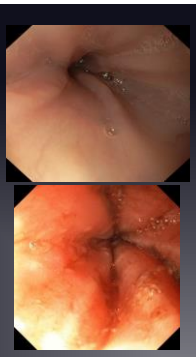




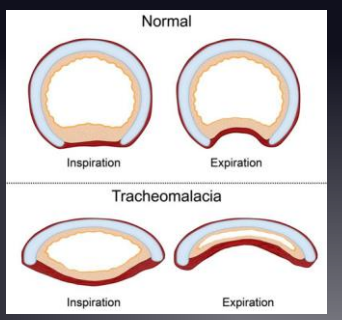
Beasley et al 1991

Oesophageal dysmotility
& food bolus obstruction

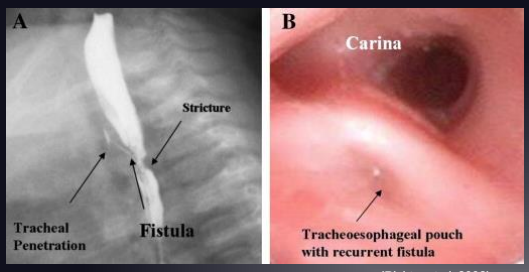




GOR disease – vomiting, aspiration,
oesophagitis & stricture



Tracheomalacia



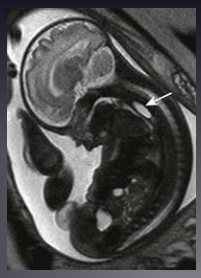
(Richter et al. 2008)

Recurrent TOF

Long-term Outcomes

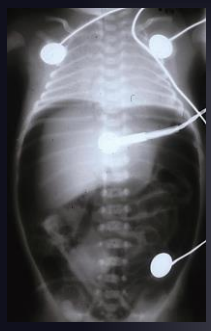
Scar
Scoliosis
Feeding, nutrition and growth
Respiratory
Psychology
Reproductive

Prenatal diagnosis



a small or absent stomach bubble + polyhdramnios on antenatal fetal anomaly ultrasound scan at around 19-20 weeks' gestation

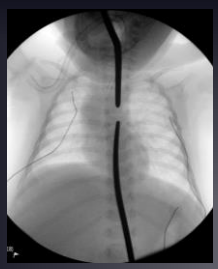
When it's not straightforward or goes wrong
1. premie with RDS



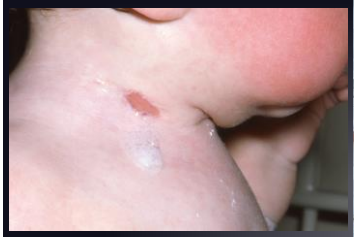
Inefficient ventilation
Risk of gastric perforation

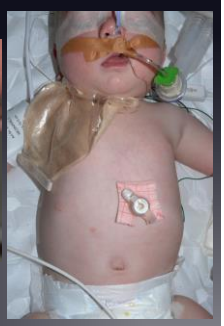
Rx low pressure IPPV
Position ETT low (beyond fistula)
Urgent occlusion/ligation of fistula and delayed repair

2. long gap and pure OA

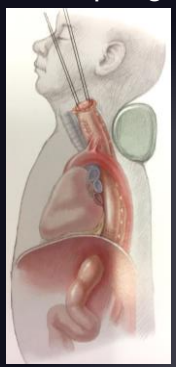


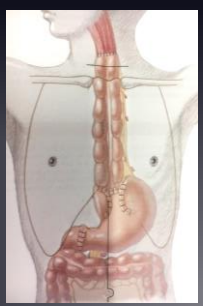
- gastrostomy, Replogle and delayed primary repair (6-12wks)

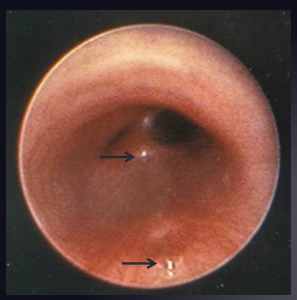


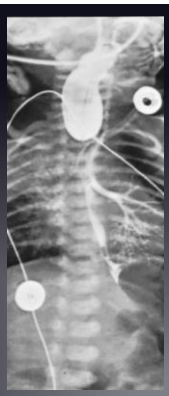


Oesophageal replacement

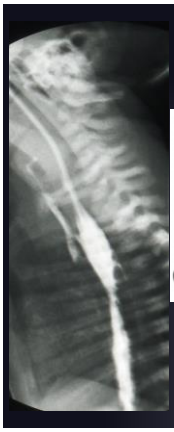


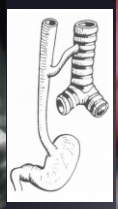


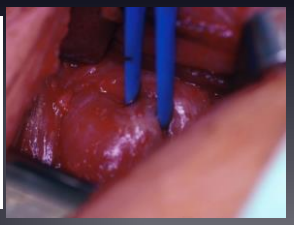




3. Double fistula



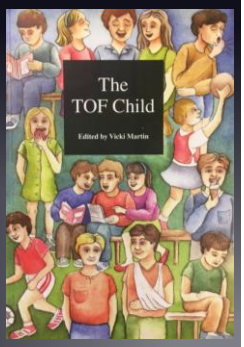




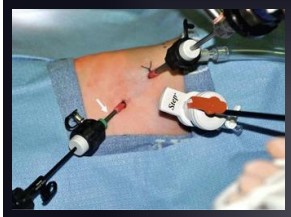
4. H fistula

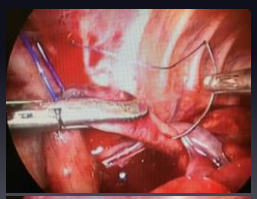
Support organisations

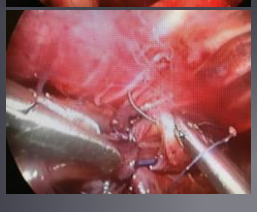
- UK (TOFS)
- Germany (KEKS)
- Australia (T-O Fistula /VATER Network)
- USA (EA/Family Support Connection Inc)



What's new?







<u>Key messages</u>

- Consider OA in any newborn with maternal polyhydramnios
- If OA suspected try and pass a 10FG gastric tube and take an X-ray if it won't enter stomach
- OA/TOF + respiratory distress = urgent transfer
- Complications after OA repair (leak, stricture, GOR, dysmotility) are manageable
- With appropriate nurture, outcomes are generally good but more guarded if major CHD