Management of an Infant born with Gastroschisis

Antenatal Features:
- Often young maternal age
- Defect lateral to umbilicus (usually to the right)
- Associated anomalies less likely; up to 15%
- Often have oligohydramnios; polyhydramnios may indicate intestinal atresia; note presence of any bowel dilatation

Labour and Delivery:
- Notify the Neonatal and/or Surgical team at UHW Cardiff of impending delivery
- Anticipate associated problems (Prematurity, IUGR); frequently associated.

Delivery Room Management:
- ABC
- If respiratory support is required, intubation and ventilation are preferable to nCPAP to minimise gaseous distension of the gut.
- Note the colour of the bowel and any obvious distension of loops at delivery, but avoid excessive handling of the gut.
- Stabilise the bowels in the midline with a doughnut ring made of gauze and cotton tissue…

- Lay baby on top of long pre cut cling film and wrap right around the abdomen aiming to keep the prolapsed gut well supported and aiming to keep the gut pedicle in a neutral position.

- Pass a wide bore orogastric/nasogastric tube to decompress and aspirate the gastric contents.
- Leave NG on free drainage; aspirate every 20-30 minutes.
- Nil by mouth and start IV maintenance fluids

Pre-operative Management:

Patients should go to theatre as soon as possible after delivery; we aim for theater before 4 hours of life
- 2 x large bore IV cannulae (Avoid veins suitable for long line)
- Routine investigations including group and crossmatch
- Vitamin K
- Assess perfusion and give fluid bolus if necessary. A first bolus of 20 ml/kg of 4.5% HAS over 10-15 minutes is often required
Further boluses of fluids may be decided based on adequacy of peripheral perfusion, pH, lactate and widening toe-core temperature difference.

Further Management:

Fluid requirements may be greatly increased in the peri-operative period due to evaporative loss from the exposed viscera and third space loss into the abdominal cavity and tissues.

- 10% Dextrose maintenance initially
- Change to TPN when possible
- Use normal saline or 4.5% HAS for fluid boluses
- Replace NG losses ml for ml with 0.45% saline with 1 mmol KCL per 50 ml
- Ensure adequate hydration by monitoring perfusion, urine output and blood pressure
- Monitor temperature carefully, may have large evaporative heat losses
- Transfer to a surgical unit as soon as possible

Alert Surgeons if features of compartment syndrome:
- Metabolic acidosis
- Worsening ventilatory requirements
- Lower limb oedema
- Increasing abdominal distension
- Decreased urine output despite adequate fluid management

Family Support:
- Ensure parents are aware of management plans
- Encourage mother to express breast milk

References: