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MALROTATION

fact sheet

What is malrotation?
Malrotation occurs when the intestines are abnormally placed in the abdomen, which may allow the intestine to kink and result in a blockage. During the first 6-10 weeks of pregnancy the intestine develops outside of the abdominal cavity in the umbilical cord. During the 10th week of pregnancy the intestine re-enters the abdomen and normally is arranged in a certain configuration. Sometimes the intestine re-enters the abdomen but is arranged incorrectly – this is called malrotation. There is no known reason why in some babies the intestine is not arranged in the correct position.

Why does malrotation cause a problem?
Because the intestine has not been positioned correctly bands of tissue (called Ladd's bands) may occur and block/obstruct the first part of the intestine (duodenum). As the intestine has been placed incorrectly it may twist on itself and stop the blood supply to that area of intestine. This is called a volvulus. If blood supply to the intestine is compromised this area of the intestine may die, and will have to be removed. This is a potentially life-threatening condition.

What symptoms will my baby have?
Most babies present with vomiting, and often this vomit may contain bile (green-yellow) coloured fluid. Babies may also be irritable, appear to be in pain and may have a swollen abdomen.

How is malrotation diagnosed?
A barium meal is a special x-ray, which will diagnose a malrotation. Barium is a contrast fluid, which can be seen on x-rays. A tube will be placed down your baby's nose into the stomach (naso-gastric tube) and barium-containing fluid will be placed into the stomach and x-rays taken. The passage of the barium through the intestine can be seen on the x-rays and will identify any blockages or malposition of the intestine.

How is malrotation treated?
Surgery is always necessary for a malrotation to prevent possible life threatening obstructions. During the surgery the Ladd's bands are divided so that the intestine cannot become blocked and the intestine is re-arranged so that it cannot twist on itself and cause a volvulus. The appendix is normally in the lower right side of the abdomen, but with a malrotation it is frequently on the left side. As this may cause problems with diagnosing appendicitis in later life, the appendix is usually removed at the time of the surgery.

What happens after surgery?
Following surgery your baby's intestine needs time to recover and he/she will be fed with intravenous fluids. Your baby will then recommence oral feeds, initially in small amounts. If the feeds are tolerated well, they will be increased in volume. If you had planned to breastfeed, at this time you will be able to resume breastfeeding. Some infants may continue to vomit small amounts, similar to other infants of the same age, this is normal.

Infants with a malrotation generally do not have further problems following surgical correction. Very occasionally fibrous bands may develop following the surgery, which may cause an obstruction and require further surgery.

If you have any further questions please ask the medical and nursing staff.

Approved by Canberra Hospital Neonatal Intensive Care Unit, 2012
Revision Date 2015