Umbilical Hernia

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Background

- Occur as a result of failure of cicatrisation of the umbilical ring following separation of the umbilical cord – allows the peritoneum (with or without intestine) to bulge through the abdominal wall at the base of the navel.
- Most will close by 4 to 5 years of age without treatment.
- Complications including incarceration, strangulation, and rupture are uncommon in children.
- It is important to differentiate true umbilical hernia from paraumbilical and supraumbilical hernias since the latter groups will not disappear spontaneously.

History

- Umbilical swelling which increases in size on crying/straining.
- Older children may get intermittent discomfort indicating intermittent obstruction.
- Strong risk factors associated include low birth weight (<1500g) and African/African-American ancestry.

Examination

- Abdominal examination reveals a fascial defect at the umbilicus, with intact overlying skin.
- Digital examination usually demonstrates easily reducible hernia.
- Pain, redness and tenderness may indicate infection or incarceration.
- Incarceration is rare in children and usually involves the small bowel, resulting in obstructive symptoms such as vomiting, abdominal pain, and constipation.

Differential diagnosis

- Epigastric Herniation (located in the upper abdomen as a result of a defect in the linea alba)
- Herniation of the umbilical cord (occurs in newborns)
- Exomphalos minor (large defect covered by membrane +/- skin, usually diagnosed prenatally or at birth)

Investigations

- No imaging is necessary – diagnosis is based on history and examination.
UMBILICAL HERNIA

Reducible, non-tender

< 3 years of age

Watch and wait, 80-90% will close spontaneously. Refer to GP

> 3 years of age

Refer to Surgical OPD for routine elective repair

Tender, regardless of size

Although rare, strangulation should be suspected and treated immediately by immediate attempt at reduction (in the absence of signs of peritonitis) - milk air or fluid out of the incarcerated loop of intestine and apply firm, steady pressure to the mass.

If reduction fails, urgent operation is required. If reduction successful, repair should be done at earliest opportunity.

Surgical repair is usually a day case procedure. After surgical repair, the dressing can be removed in 2 days. No activity restrictions are necessary. The most common complications after hernia repair are wound infection and bleeding, but both are rare. No surgical follow-up needed unless repair is complicated.

Refer to GP