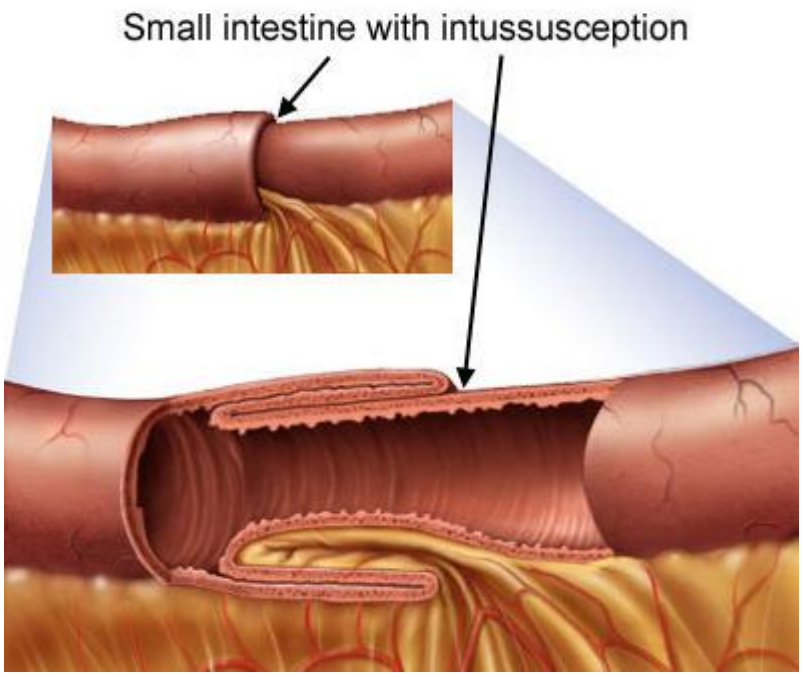
PAEDIATRICS

PAEDIATRIC GI PRESENTATIONS

Although many of the causes of abdominal pain or vomiting in children are the same as those in adults, there are some important causes unique to children.



Intussussception

Intussussception is the invagination of the bowel into an adjacent distal section. It occurs most frequently between 2-24 months of age and is rare in neonates, though it can occur at any age. In older children and adults there is usually an anatomical lead point such as a diverticulum or tumour which becomes trapped during peristalsis and is dragged into the distal bowel. In idiopathic intussussception no such lead point is identified but it is presumed that GI lymphoid tissue enlargement following viral infection is the cause. The most common site is the ileocolic region.

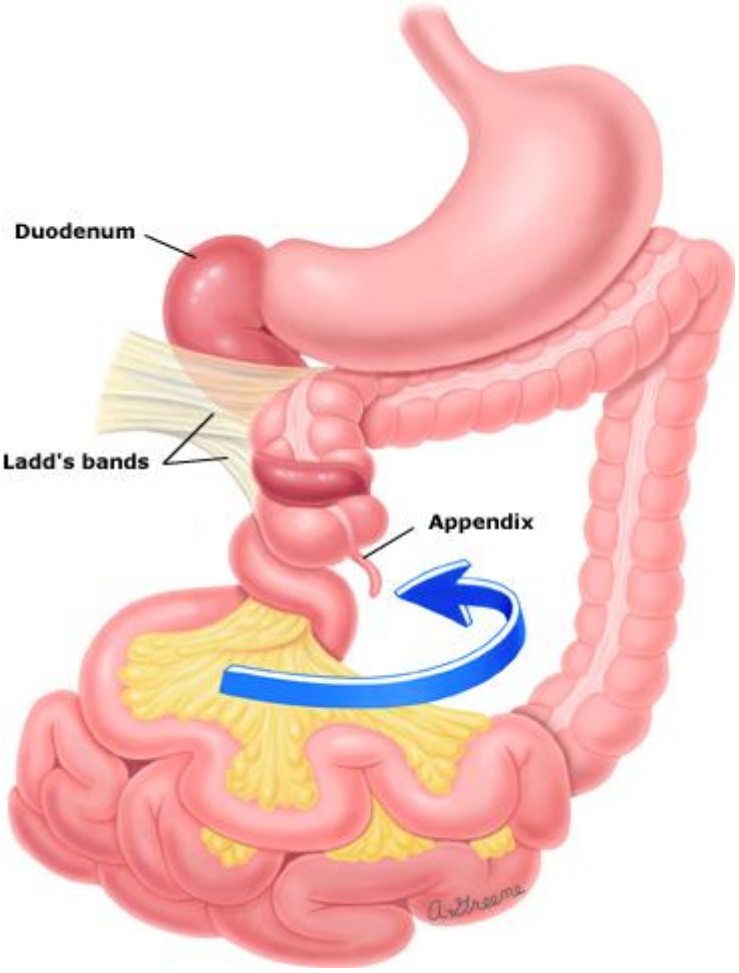
Intussussception leads to episodic mechanical obstruction. If intussussception persists and is untreated first the venous then the arterial circulation becomes compromised leading to ischaemia and necrosis, bacterial translocation, sepsis and perforation.

Clinical Presentation and Management

- Intermittent episodes of sudden severe abdominal pain.
- Inconsolable crying.
- Drawing of the legs towards the abdomen.
- Bilious vomiting.
- Red, jelly-like stool (blood mixed with mucous) or frank PR bleeding.
- Sepsis or peritonism may be present if the bowel is infarcted.

Diagnosis is with ultrasound. Treatment is either non-operative reduction by enema or surgical reduction.

Surgical repair is reserved for those that are acutely unwell or those in whom non-operative management is unsuccessful. If you suspect intussussception keep the patient nil by mouth, consider NG decompression and refer to the paediatric surgical team at the QEUH. Consider IV antibiotics if there are signs of sepsis, perforation or peritonitis.



Malrotation and Midgut Volvulus

During embryological development the GI tract herniates from the abdominal cavity into the yolk stalk. On their return to the abdominal cavity the GI tract rotates and becomes fixed at the duodenojejunal junction and the caecum to the posterior abdominal wall by the root of the mesentery. The root of the mesentery is normally broad, preventing twisting of the intestines. In malrotation the normal rotation does not occur during embryonic development and intestinal structures do not return to the correct location. If the duodeno-jejunal junction and caecum are close together the root of the mesentery is narrow, poorly fixed and predisposed to twisting. Volvulus of the midgut may ensue leading to mechanical obstruction, ischaemia and perforation. Other causes of paediatric volvulus include meckel's diverticulum and adhesions from previous surgery.

The patient usually presents as a neonate or infant with bilious vomiting, abdominal pain and distension and lack of flatus or stool. Less often older children may have intermittent abdominal pain and vomiting due to incomplete twisting of the mesentery.

X-rays are infrequently diagnostic. Keep nil by mouth, commence NG decompression and refer to the paediatric surgical team. Urgent surgery is required to prevent irreversible ischaemia. Commence IV antibiotics and fluids if there are signs of peritonitis or sepsis.

Hypertrophic Pyloric Stenosis

Pyloric stenosis presents between 2-10 weeks and is rare after 12 weeks. It is more common in boys and first-born children. Clinical presentation is with post-prandial, forceful, non-bilious vomiting rather than effortless regurgitation (gastroesophageal reflux) or bilious vomiting (upper GI tract obstruction). After vomiting the infant will appear hungry. There may be a palpable mass in the right upper quadrant.

The patient may also appear dehydrated. If the child appears ill bloods should be taken and may show hypochloraemic metabolic alkalosis and hypokalaemia.

Diagnosis is usually by ultrasound. If pyloric stenosis is suspected refer to the paediatric surgical team at QEUH.