INFANTILE HYPERTROPHIC PYLORIC STENOSIS

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Pyloric stenosis presents with non-bilious projectile vomiting starting between 2 and 6 weeks of age. Its presentation di ff ers from infective causes of vomiting (e.g. meningitis, urinary tract infections [UTIs]) because of postprandial hunger. Once vomiting starts, its frequency and forcefulness increase daily , distinguishing it from gastro-oesophageal reflux (GOR), which Douglas Prehn , 1901–1974, American urologist, Wisconsin, USA. Wilhelm Conrad Ramstedt , 1867–1963, German surgeon credited with describing the pyloromyotomy . - waxes and wanes and starts shortly after birth. In the UK, pyloric stenosis a ff ects 1:300 infants with a M:F ratio of 4:1. There is often a maternal family history . If the presentation is early , clinical findings are unremark - able; if late, weight loss and dehydration requiring resuscita - tion predominate. The diagnosis is made on a test feed or on abdominal ultrasound showing a thickened and lengthened pylorus. In a test feed, gastric peristalsis is seen passing from left to right across the abdomen, and in a relaxed (feeding) baby , the pyloric ‘tumour’ is palpable as an ‘olive’ in the right upper quadrant. Feeds are discontinued, and the stomac h is emptied with an 8–10Fr nasogastric tube. Loss of gastric acid causes a hypochloraemic, hypokalaemic alkalosis and correction may take 24–48 hours; 0.9% saline with 0.15% KCl in 5% glucose given at 6–7.5 /uni00A0 mL/kg/h provides maintenance and corrects deficits in most babies. As the chloride deficit is replaced, the kidneys correct the pH. Ramstedt’s pyloromyotomy is performed laparoscopically or through a supraumbilical or right upper quadrant incision. A pyloric serosal incision is made, and the ‘tumour’ spread (Figure 17.9), leaving an intact submucosa from the duo - denal fornix to gastric antrum. The incision must extend onto the stomach; short incisions cause an early recurrence. Post - operatively , intravenous fluids are contin ued until feeds are re-established within 24 hours. Early postoperative vomiting usually swiftly resolves, with GOR being mor e likely than an incomplete myotomy if it persists. GOR is common and tends to resolve spontaneously with maturity . Persistent symptoms respond to thickened feeds and antireflux medication. Failure to thrive or respiratory problems demand inv estigation and, in some cases, laparoscopic fundo - plication.

Falciform vitellointestinal duct ligament (a re mnant becomes a Meckel ’s diverticulum) Umbilical cord Umbilical vein Umbilical ring Allantois (urachus) Becomes median Becomes medial umbilical fold umbilical fold Umbilical artery Bladder Figure 17.8 Structures at the umbilicus.

Figure 17.9 Pyloromyotomy for infantile hypertrophic pyloric stenosis.

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Revision #1
Created 2025-12-31 15:18:26 UTC by Omar Ayman
Updated 2025-12-31 15:18:26 UTC by Omar Ayman