

# Imperforate Hymen as a Rare Cause of Abdominal Pain in an Adolescent Woman

S. McCredie | S. Al-Bayati | Bankstown Lidcombe Hospital



Health  
South Western Sydney  
Local Health District

**Background:** Imperforate hymen (IH) is a rare congenital anomaly of the female genital tract, where the hymen completely obstructs the vaginal outflow tract. If left undiagnosed into puberty, with the onset of menarche this obstruction can cause the build up of menstrual blood and vaginal fluid, resulting in pain, haematometra and haematocolpos.

**Aim:** To describe a rare cause of abdominal pain in a premenarchal adolescent woman.

**Case:** A premenarchal 12-year-old girl presented to hospital with a 3-day history of lower abdominal pain. The emergency department referred her for a transabdominal pelvic ultrasound (figure 1) which revealed a large hyperechoic mass in the vagina (haematocolpos), with the uterus displaced superiorly and anteriorly. Examination of her external genitalia revealed an intact hymen, without obvious distension or bulging (fig 2).

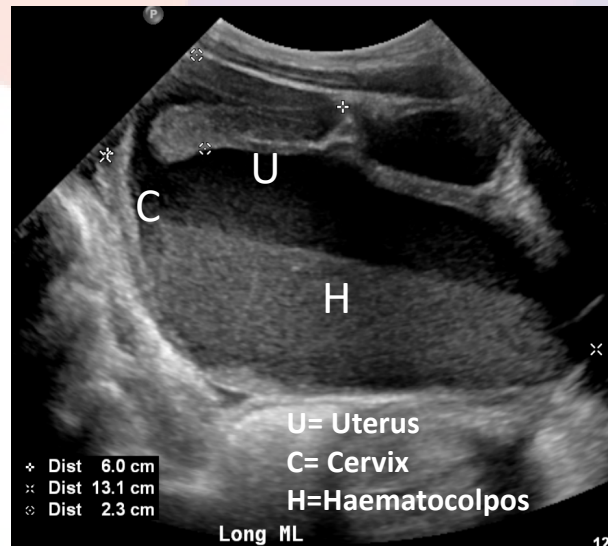


Figure. 1 Transabdominal Ultrasound demonstrating haematocolpos



Figure 2. (left) Examination of Imperforate hymen

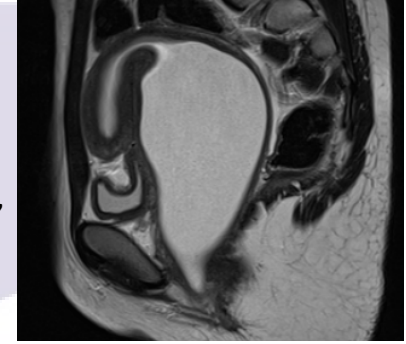


Figure 3. (right) MRI demonstrating haematocolpos, with distension of the vagina and obstruction at the vaginal orifice

**Results:** She was diagnosed with an imperforate hymen with associated haematocolpos. An MRI (figure 3) confirmed the diagnosis, revealing a 2mm obstruction approximately 3mm from the external vaginal opening, vagina with the known haematocolpos causing mass effect on the bladder and urethra. She was discharged for an elective hymenectomy, then represented 4 weeks later with another episode of abdominal pain, so underwent an emergency hymenectomy. A cruciate incision was made over the hymen, with 400ml of dark red blood drained, and the incision edges were sutured with 3.0 vicryl.

**Discussion:** This case highlights that whilst IH is a rare diagnosis, it should be considered in women with primary amenorrhoea who present with lower abdominal or back pain, particularly in the case of cyclical pain. Improved recognition of the symptoms of IH can avoid unnecessary investigations and potentially harmful interventions if the symptoms are mistaken for other pathologies such as appendicitis.