A Giant Haematocolpos Masquerading as an Abdominopelvic Cyst: An Imaging Journey from Plain Radiograph to MRI Diagnosis

Dr Jojo Li[1], Dr Clarice Chan[1], Dr Fraser Ingham[1]
[1] Royal Free London Hospital NHS Foundation Trust, United Kingdom
Corresponding author: Dr Jojo Li, jojo.li5@nhs.net

Track 4 – radiology case reports

ABSTRACT (247 words)

Introduction:

Imperforate hymen is an uncommon congenital outflow obstruction that may present around menarche with abdominal pain, distension or urinary symptoms [1]. However, large haematocolpos can mimic an abdominopelvic cyst, making anatomical localisation important.

Case:

A 12-year-old premenarchal girl presented with several weeks of abdominal pain and progressive distension, having previously received antibiotics for presumed urinary infection. Examination showed a markedly distended, firm abdomen. Abdominal radiography demonstrated central paucity of bowel gas, raising concern for a pelvic mass, without obstruction. Ultrasound showed a massive abdominopelvic cystic structure, initially considered ovarian, with giant ovarian cystadenoma suggested.

MRI demonstrated direct continuity of the collection with the cervix and uterine cavity, with the uterus displaced superiorly towards the xiphisternum. The bladder was compressed anteriorly/rightwards, with minor right hydronephrosis and ureteric prominence. Appearances were consistent with giant haematocolpos, with imperforate hymen or transverse vaginal septum considered. Gynaecological surgery confirmed an imperforate hymen and approximately 6 litres (L) of retained blood were drained. This was exceptionally large; published reports generally describe several hundred millilitres to approximately 1 L, with a literature review reporting 300–2500 mL and rare massive cases reaching approximately 3.4 L [2].

Discussion:

In a premenarchal adolescent, a giant midline cystic abdominopelvic “mass” should prompt consideration of haematocolpos. Ultrasound is an appropriate first-line investigation, but MRI is decisive when the organ of origin is uncertain or obstructive Müllerian/vaginal anomalies require delineation before surgery. The unusually large 6 L retained volume further illustrates the potential severity of delayed outflow obstruction.

Key lessons:

- Trace large cystic pelvic lesions anatomically before assuming ovarian origin.
- Consider obstructive genital tract anomalies in premenarchal adolescents with abdominal distension.
- MRI can be decisive when ultrasound is indeterminate.

BIOGRAPHY (72 words)

Dr Jojo Li is a resident doctor at Royal Free London Hospital with interests in clinical radiology and paediatrics. She graduated in Medicine from Barts and The London School of Medicine and Dentistry, Queen Mary University of London, and holds a first-class honours iBSc in Biomedical Engineering and Clinical Materials. Her interests include multidisciplinary imaging, diagnostic reasoning and clinical research.

- Mobile: 07402810860
- Category: Poster presentation
- Research interests: Clinical radiology and paediatrics



References:

1. American College of Obstetricians and Gynecologists. Diagnosis and Management of Hymenal Variants. Committee Opinion No. 780. Obstet Gynecol. 2019;133:e372-e376. doi:10.1097/AOG.0000000000003283.
2. Amponsah-Manu F, Ssentongo P, Arkorful T, Ofosu-Akromah R, Ssentongo AE, Hansen-Garshong S, Oh JS. Imperforate hymen and leaking hematosalpinx mimicking acute appendicitis: A report of a rare case and a review of literature. Int J Surg Case Rep. 2019;63:69-74. doi: 10.1016/j.ijscr.2019.09.003. Epub 2019 Sep 18. PMID: 31569069; PMCID: PMC6796733.

Appendix: Figure 1

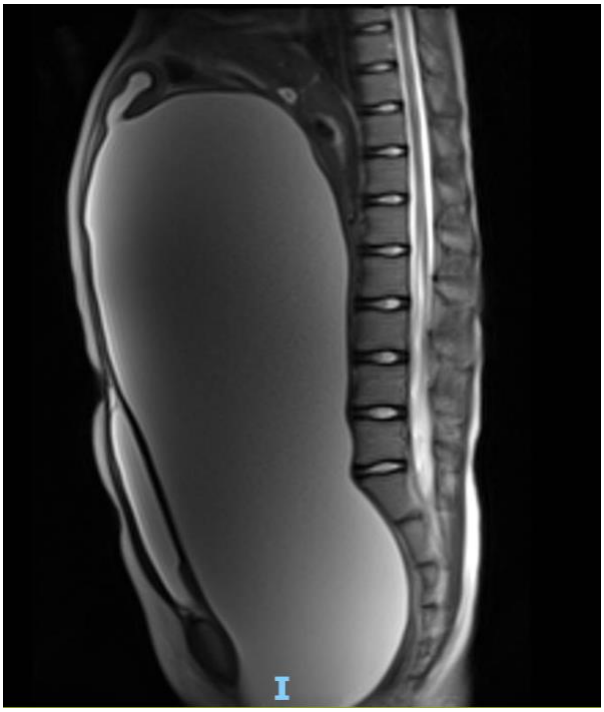


Figure 1. Sagittal MRI demonstrating continuity of the distended vaginal cavity with the cervix and uterus, establishing the genital tract origin of the apparent ‘cyst’.