CLINICAL CONUNDRUM CASE PRESENTATION

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DISCLOSURES

- I have no financial relationships with any commercial interests

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OUTLINE

01	02	03	04	05	06	07	08
Patient Summary	Differential Diagnoses	Initial Work Up	Secondary Work Up	Imaging	Diagnosis	Pathophysiology	Discussion and Questions

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PATIENT SUMMARY

- Pt is an 11-year-old fully immunized, previously healthy female presenting with 6 weeks of constipation, abdominal pain, rectal discomfort and difficulty urinating.

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DIFFERENTIAL DIAGNOSES

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HISTORY AND PHYSICAL

- She was in her usual state of health until about 6 weeks ago, when she developed difficulty urinating (straining to start stream, increased frequency) and suprapubic abdominal pain.
- Also began having smaller, less frequent pebble-like stools around this time (change from baseline of daily soft stools without pain).
- She has still been passing gas throughout her course.

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WHAT ELSE DO YOU WANT TO KNOW?

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INITIAL WORK UP

- UA and urine culture
- Miralax 1 cap BID
- Abdominal X-ray
- Soapsuds Enema
- 2 home enemas

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ADDITIONAL WORK UP IN CHCO ER

- Vital signs: Temperature 37.4, HR 102, RR 20, BP 118/62, 100% on RA
- Initial assessment: Well-appearing female presenting with 6 weeks of suprapubic abdominal pain, difficulty urinating, and constipation.
- Exam notable for suprapubic abdominal tenderness, without rebound or guarding, and large firm but soft mass palpated about 2cm into rectum, able to examine circumferential with digit, not able to dis-impact. No anal fissure. Normal anal tone.
- 1 view abdominal Xray with no signs of bowel obstruction, does appear to have large stool burden in the rectum
- Treatment included SMOG enema and GI consulted recommending home bowel cleanout
- However, family strongly preferred admission given persistence of the problem, therefore admitted for Nulytely cleanout

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DIFFERENTIAL DIAGNOSES

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SECONDARY WORK UP

- Pt deferred a repeat rectal exam to palpate for mass
- CBC, Serum TTG and IgA
- Lumbosacral MRI
- Pelvic, Renal and Transabdominal US

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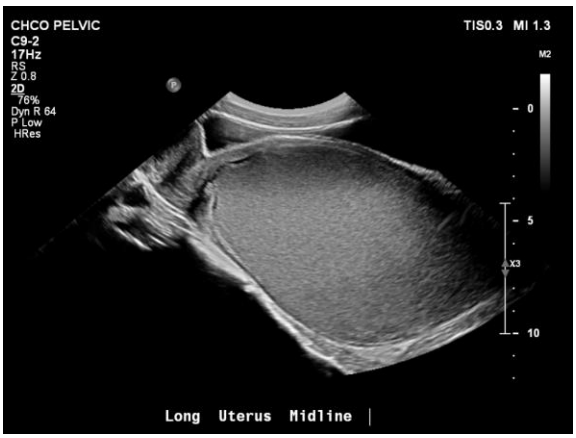
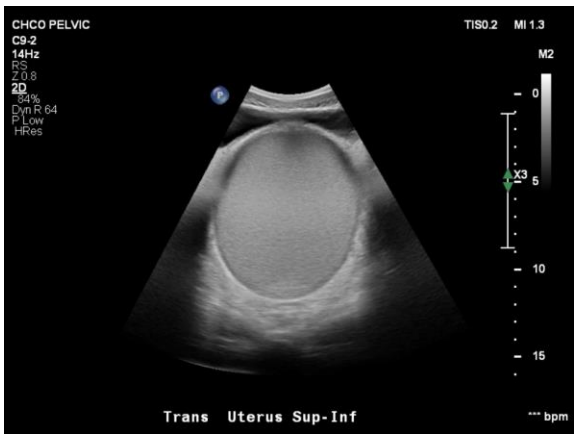
IMAGING





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HEMATOMETROCOLPOS SECONDARY TO IMPERFORATE HYMEN

- Gynecology was consulted and after an external pelvic exam demonstrated a bulging hymen with a bluish tinge, she was taken to the OR for a hymenectomy and fluid evacuation.
- Findings: 1000 ml old menstrual blood

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IMPERFORATE HYMEN

- Congenital anomaly with hymen completely obstructing the vaginal opening [5]
- The mean age of patients was 10 +/- 4 years [5]
- Presenting symptoms included abdominal pain, urinary retention, abnormal menstruation, primary amenorrhea, cyclic abdominal pain, abdominal distension, dysuria, increased urinary frequency, severe presentation of renal failure, and urinary tract infection [3, 5]
- Abdominal ultrasound is the preferred imaging modality and the diagnosis has good postsurgical prognosis [4, 5]
- If left untreated can lead to retrograde menstruation, endometriosis, pelvic adhesions, fallopian tube damage, infection, hydronephrosis, renal failure and infertility [4, 5]

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PATHOPHYSIOLOGY

- The hymen is the junction of the urogenital sinus and the sinovaginal bulbs [2, 5]
- The inability to separate occurs during embryonic development [2]
- Imperforate hymen is a local fusion anomaly with defective resorption of the Mullerian septum [2]
- It is a sporadic event [2]

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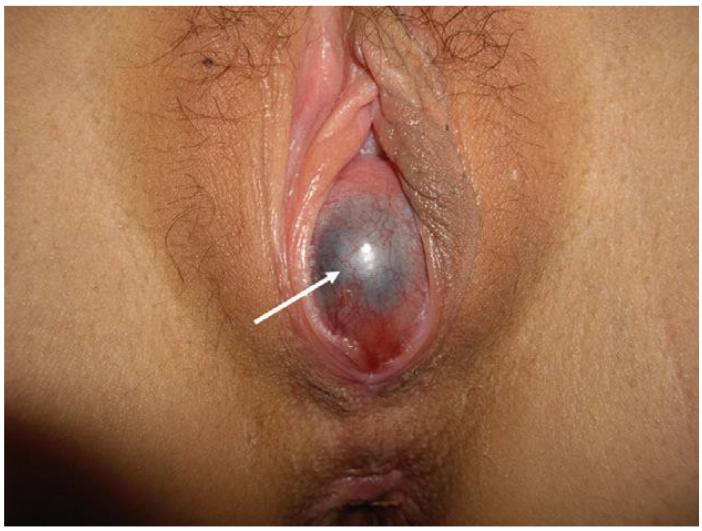
PHYSICAL EXAM FINDINGS

- Palpable pelvic mass [4]
- Bulging hymen [4, 5]
- Hymen that is often blue or white in appearance [4, 5]



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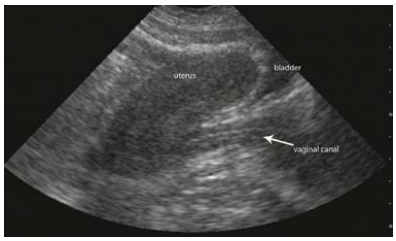
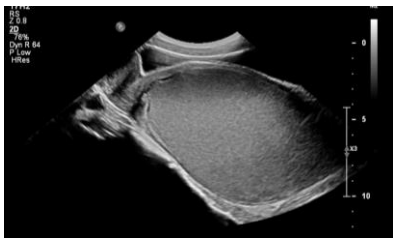
ULTRASOUND FINDINGS

- Typically reveals a large hypoechoic mass with smooth, thin walls just posterior to the bladder [4]
- The uterus may appear normal or be dilated [4]
- The blood and endometrial tissue within the uterus appear hypoechoic [4]





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TREATMENT

Hymenectomy with complete removal of excess hymenal tissue [2, 3, 4, 5]

Evacuation of menstrual blood [2, 3, 4, 5]

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QUESTIONS

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