

# THE SILENT SABOTEUR: A CASE OF URINARY RETENTION IN ADOLESCENT WITH IMPERFORATE HYMEN

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## Introduction

Imperforate hymen (IH) is a rare congenital anomaly of the female genital tract which can bring forth a variety of complications. Besides being an uncommon cause of primary amenorrhea, patients can also display genital and urinary tract obstructive symptoms.

## Case Description

A 12-year-old girl who has yet to attain menarche was presented to the Emergency Department (ED) with a history of fever, lower abdominal pain, and loose stool, without any urinary symptoms. She was hemodynamically stable, but abdominal examination showed suprapubic tenderness. She then reported difficulty urinating in the ED and was unable to void despite multiple attempts. Upon reassessment, a palpable bladder and a bulging hymen were noted. Bedside scan showed a distended bladder and a pelvic mass with mixed echogenicity, indicating hematocolpos. After catheterization, 700 ml of urine was drained. She was referred to the Gynaecology team and admitted for a hymenectomy.

## Discussion

Acute urinary retention (AUR) is unusual especially in teenage girls. The causes can be obstructive, infectious, pharmacological or neurological. Clinicians should consider gynaecological factors when evaluating AUR in teenage girls. This case illustrates how hematocolpos due to IH causing AUR with only about 40 documented cases can be easily missed, especially in the ED where initial presentations might suggest more common diagnoses like acute gastroenteritis or urinary tract infection (UTI). IH occurs only in 0.05% of women. The sudden onset of AUR in the ED was a pivotal clue leading to the correct diagnosis. Failure to conduct a genital examination in adolescent girls presenting with urinary difficulties in emergency departments can lead to the oversight of IH. Utilizing point-of-care bedside ultrasonography offers emergency physicians a valuable chance to diagnose hematocolpos secondary to IH. This is particularly beneficial considering the broad range of initial symptoms. Proper use of bedside ultrasonography can swiftly and accurately narrow down the potential diagnoses.

## Conclusion

In adolescent girls with AUR, hematocolpos due to IH should be considered. High suspicion, thorough history, and proper imaging can enable prompt diagnosis and treatment, to prevent complications such as infections, renal failure, endometriosis and infertility later in life.

## Keywords

Acute urinary retention, imperforated hymen