

## Case Report

### Pyocolpos with imperforate hymen during early childhood presented with urine retention and bouts of intestinal obstruction.

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#### Abstract

An imperforate hymen is not a rare condition in female newborns, but is often ignored in a genital examination by doctors. We report an unusual case of a 2 years old Sudanese girl with an imperforate hymen and pyocolpos presented with urine retention and intermittent bouts of intestinal obstruction. To our knowledge, this is a first case of female child with pyocolpos to be documented in Sudan literature.

Keywords: Hydrocolpos, urinary ascites, hymenotomy.

**H**ydrocolpos -the fluid distension of vagina- is a rare lesion<sup>1</sup>. It results from congenital vaginal obstruction in combination with maternal hormonal stimulation of fetal cervical glands. Such cases causing complete pelvic outlet obstruction and respiratory distress are unusual and sometimes may lead to rupture of bladder causing urinary ascites if not treated promptly<sup>2</sup>. If infected it will be converted into pyocolpos, which is a surgical emergency with very high mortality rate<sup>3</sup>.

#### Case report

A two years old Sudanese female was admitted to our hospital (Omdurman Military Hospital) with urine retention for 45 days, on and off high-grade fever for one month, and intermittent abdominal distension for two days. There was no previous history of hospitalization. Her mother had consulted a local practitioner because of fever and urine retention, into which the girl was catheterized and given antibiotics and antipyretics. Then after, the catheter was removed because of improvement.

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Next day she developed urine retention again during which a catheter was fixed again. An abdominal ultrasound was performed and that showed cystic swelling located in the area between the rectum and urinary bladder. Patient was referred for CT scan and further assessment.

On admission she had been catheterized, afebrile, not dehydrated, and an abdominal lump was palpable below the umbilicus that was firm and non-tender. During hospital stay she developed bouts of intermittent abdominal distension. CT scan showed pelvic swelling filled with fluid either in the uterus between rectum and urinary bladder or originated from posterior wall of the urinary bladder [Figure 1].

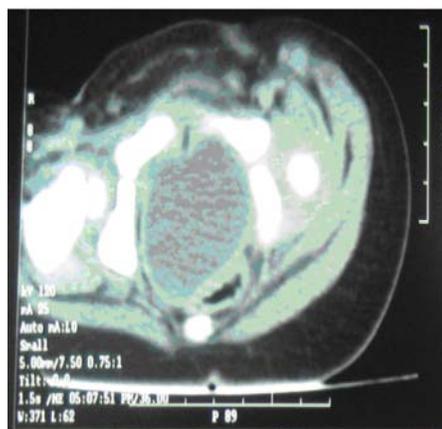


Figure 1: CT scan showed retroperitoneal swelling filled with fluid in the uterus between rectum and urinary bladder.

Per-operatively genital examination showed an absent vaginal opening with a bulging membrane with normally placed urethra and anus. Partial hymenotomy was carried out to drain the pus [Figure 2&3] that was offensive and yellow greenish in colour.



Figure 2: Pus discharge from the vagina through small window created in the hymen prior to formal partial hymenotomy.

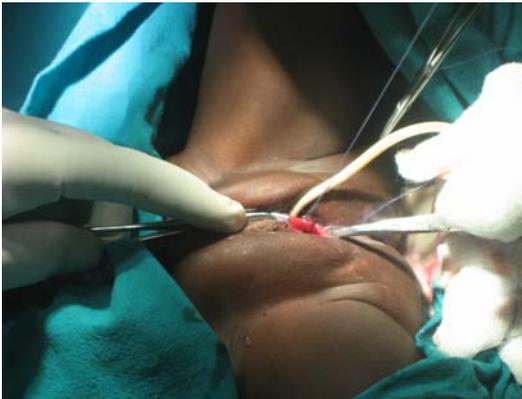


Figure 3: Partial hymenotomy.

Antibiotics were prescribed for a total of three weeks after sending sample for culture and sensitivity that showed no microbial growth. The patient showed good clinical response.

#### Discussion

Pyocolpos, an infected fluid collection within the vagina, is a rare condition<sup>1</sup>. Specific aetiologies for the failure to establish patency are not evident. The cause may be related to failure of apoptosis due to a genetically transmitted signal, or it may be related to an inappropriate hormonal milieu. Familial inheritance in successive generations has been

described<sup>4</sup>. The aetiology may include an imperforate hymen, a transverse vaginal septum, and maternal oestrogen overstimulation<sup>5</sup>. In our case the aetiology was due to imperforate hymen. Lack of awareness of this lesion and failure to perform careful perineal examination resulted into errors in the initial diagnosis. Clinical symptoms are usually insidious, unless it becomes an evident mass in the lower abdomen or when it compresses the ureter and causes hydronephrosis or a urinary tract infection. In our case the pyocolpos compressed the bladder neck that led to urine retention. Treatment is dependent upon the etiology. If it is caused by an imperforate hymen, then a hymenotomy should be performed<sup>6</sup>. An imperforate hymen is not a rare condition in female newborns. The incidence is one in 1,000<sup>7</sup>, but genital examination is frequently ignored in the physical examination of newborns.

#### Conclusion:

The genital examination, among the series of physical examinations for newborns, is often ignored by physicians, although an imperforate hymen is not a very rare condition in females. This case demonstrates the need to perform a full physical examination, particularly a genital examination, in newborns.

#### References

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