

# Hematocolpos Case Report Incidence and Symptoms In Children

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## ABSTRACT

Imperforate hymen is the most common obstructive anomaly of the female reproductive tract. Estimates of the frequency of imperforate hymen vary from 1 in 1000 to 1 in 10,000 females. It must be diagnosed at birth by the pediatrician; but imperforate hymen is most often diagnosed in adolescent girls after the age of menarche with otherwise normal development, if it is not diagnosed and be treated it will presents complications at puberty such as blood collection inside the vaginal cavity (hematocolpos), urinary retention, amenorrhea and pelvic pain or a risk of secondary endometriosis. The diagnosis of an imperforate hymen is usually made based purely on the physical exam, although Transabdominal ultrasonography is sufficient for imperforate hymen diagnosis but MRI provides more details on hymen thickness enabling choice of the appropriate surgical technique: a thick hymen needs surgical resection; a thin hymen only needs a vertical incision. This is a case report of lower abdominal pain as a result of an imperforate hymen causing haematocolpos.

**Keywords:** Hematocolpos; Ultrasound; Amenorrhea; Imperforated hymen; Puberty

## INTRODUCTION

Imperforate hymen is the most common obstructive anomaly of the female reproductive tract. Estimates of the frequency of imperforate hymen vary from 1 in 1000 to 1 in 10,000 females. It must be diagnosed at birth by the pediatrician; but imperforate hymen is most often diagnosed in adolescent girls after the age of menarche with otherwise normal development, if it is not diagnosed and be treated it will presents complications at puberty such as blood collection inside the vaginal cavity (hematocolpos), urinary retention, amenorrhea and pelvic pain or a risk of secondary endometriosis. The diagnosis of an imperforate hymen is usually made based purely on the physical exam, although transabdominal ultrasonography is sufficient for imperforate hymen diagnosis but MRI provides more details on hymen thickness enabling choice of the appropriate surgical technique: A thick hymen needs surgical resection; a thin hymen only needs a vertical incision. This is a case report of lower abdominal pain as a result of an imperforate hymen causing haematocolpos.

## CASE PRESENTATION

A healthy 13 year old girl, fully immunized, presented to pediatric emergency with a two weeks history of lower right abdominal

pain which has recently worsened and caused urinary retention. There was no history of vomiting or a change in bowel habit. Her birth history and developmental history were unremarkable.

On examination, vital signs showed blood pressure 110/70 mmHg, Pulse 100(bpm) regular, breathing 20 per minute, proper capillary filling, Temperature 37.5°C, on auscultation good air entry to two lungs, Regular heart beats. Her abdomen was soft with mild tenderness suprapubically and in the left iliac fossa without organomegaly. No rash on limbs or other sites on the body neurologically without side marks.

Laboratory findings showed normal urine dipstick, and a urinary pregnancy test was negative. CRP=2, leukocytes 10000 per microliter without shift to left, hemoglobin 13%, platelets 365000 mcL. Normal PT/PTT coagulation factors. Chemistry normal kidney function Creatinine 0.7 Urea 10 Normal Electrolyte Normal liver function SGOT14, SGPT10, potassium 4, Phosphorus 3.5, Calcium 9.4 Normal CPK 53 Albumin 4.48 Globulin 3.

## Imaging

Abdominal ultrasound of the spleen, liver, and external bile ducts was normal Kidneys was in normal size and posture no

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**Received:** December 10, 2021; **Accepted:** December 23, 2022; **Published:** December 30, 2022

**Citation:** Nasser W, Nasser B, Jerdev M, Nasser H (2022) Hematocolpos Case Report Incidence and Symptoms In Children. *Pediatr Ther.* 11.402.

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evidence of hydronephrosis. Urinary bladder with regular wall with moderate urinary retention.

A small amount of free fluid in the pelvis. A 7 × 7 cm structure was demonstrated that causes a mass effect on the bladder refers to hematocolpos (Figure 1). The findings were verified by a gynecologist after testing with anesthesia and hematocolpos was diagnosed.



**Figure 1:** Ultrasound findings shows a mass effect on the bladder refers to hematocolpos.

The virginal membrane was opened using X-shaped diameters and there was a great outpouring of blood 700 cc. The girl was hemodynamically stable with no active bleeding and was discharged in a stable state, pain free after two days of supervision.

## DISCUSSION

Imperforate hymen incidence between 0.01% and 0.05% in newborns and it's considered to be the most common obstructive congenital abnormality of the female genital [1,2]. This condition could rarely be diagnosed in the antenatal period during third trimester ultrasonography [3]. Perforation of the hymen commonly occurs during perinatal period or during fetal life [4] but there are some cases of spontaneous rupture of the hymen in the adolescent period [5].

The clinical presentation can be as incidental finding, midline lower abdominal mass with or without protruding hymen, acute abdomen with paralytic ileus, urinary retention, urinary tract infection, constipation, acute renal failure, primary amenorrhea/cyclical abdominal pain and respiratory distress [6]. Most cases are diagnosed after menarche because of accumulation of blood in the vagina (hematocolpos) and the uterus (hematometra). Urological complications have been reported in more than 50% of cases presenting with complex congenital vaginal malformation either in neonates or during puberty. In our presenting case the main complaints were lower abdominal pain, and acute urinary retention.

Most often, this malformation is discovered at puberty. The diagnosis should be suspected in a girl with primary amenorrhea with normally developed secondary sexual characteristics. Patients usually consult for recurrent pelvic pain secondary to

blood accumulation in the vagina or hematocolpos.

The diagnosis of Imperforated hymen is possible in utero when a hydrometrocolpos is found on ultrasound [7,8]. The in utero diagnosis has advantage of looking for associated renal malformations. This diagnosis can be made by systematic screening at birth but also in front of a hydrometrocolpos of the newborn female baby [9]. Haematocolpos can compress the urethra and cause dysuria, complete bladder retention and even bilateral.

## CONCLUSION

The case is described as a lower abdominal pain with a renal finding of urinary tract symptoms. The clinical manifestation of imperforated hymen is the retention of urine and abdominal pain. Hematocolpos is an anatomical finding that result from a pathological anatomical structure of uterovaginal anatomy like imperforated hymen. The cases of imperforated hymen are sporadic. The anomaly of imperforated hymen in adolescent girls is 1/2000, clinical manifestations are abdominal pain, urinary retention, menstrual absenteeism, when there is pressure on the urethra and bladder without urinary tract infection. In the case of a differential diagnosis is urinary tract stones urinary tract trauma or infection, imperforated hymen should be taken into account.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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