

Pyocolpos With Distal Vaginal Atresia During Infancy Presented With Acute Intestinal Obstruction And Acute Urinary Retention: Report Of A Rare Case

P Srivastava, A Gangopadhyay, S Sharma, V Upadhyaya, V Kumar, R Jaiman

Citation

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Abstract

Acute intestinal obstruction with acute urinary retention is very uncommon in female infant patients with pyocolpos, an infected pus collection within the vagina. It usually presents during adolescence when menarche starts. Pyocolpos results from infection of hydrocolpos by hemotogenous route. We report this uncommon case of pyocolpos with acute intestinal obstruction with abdominal lump and acute urinary retention in a 3-month-old infant. Genital examination showed an absent vaginal opening. Abdominal X-ray showed multiple air-fluid levels. Ultrasound and abdominal CT showed a cystic area in the pelvis and pyocolpos was diagnosed. Laparotomy with drainage of pus and vaginoplasty was performed. The patient was cured after treatment. Pyocolpos is rare at any age and genitourinary examination should be done as a routine in this type of patient to prevent complications.

INTRODUCTION

Pyocolpos may be defined as 'a congenital atresia of the vaginal orifice with retention of an excess of secondary-infected cervical secretion'. Pyocolpos is a rare complication of hydrocolpos. Hydrocolpos usually presents during adolescence and is associated with imperforate hymen [1].

Pyocolpos during infancy with gastrointestinal and urinary symptoms is rarely encountered. This is a case of a 3-month-old female presented with abdominal lump with acute intestinal obstruction and acute urinary retention caused by long-standing pyocolpos. We believe that every newborn has to be evaluated properly to prevent complications in the future.

CASE REPORT

A three-month-old girl was admitted to our institute hospital with off and on high-grade fever for one month, abdominal distention for fifteen days with bilious vomiting for three days and acute retention of urine for one day. There was no previous history of hospitalization. Her mother had consulted a local practitioner for fever and the girl was given antibiotics and antipyretics. The fever subsided but the abdomen was progressively distended. She had not passed urine and faeces. On physical examination, she was febrile, dehydrated, the abdomen was distended and an abdominal

lump was palpable above the umbilicus that was firm and non-tender. Genital examination showed an absent vaginal opening without a bulging membrane with normally placed urethra and anus. Per rectal examination revealed it to be anteriorly located and cystic in nature. The baby was catheterized and passed normal urine [figure 1].

Figure 1

Figure 1: Preoperatively, the patient shows distention of the abdomen with retention of urine



The baby was placed on intravenous fluids and intravenous antibiotics and investigated. Her blood investigation was: hemoglobin 14g%; TLC 13000/cumm; DLC: neutrophils

80%, lymphocytes 18% and monocytes 2%; blood urea 25mg/dl and serum creatinine 0.6mg%. Plain x-ray of the abdomen showed air-fluid levels with dilated bowel loops. Ultrasonography suggested a cystic fine echogenic fluid accumulation in the pelvic area measuring about 100 x 83 x 82mm, with dilated bowel loops. The other organs were normal [figure 2]. CT of the abdomen showed a cystic lesion in the pelvis [figure 3].

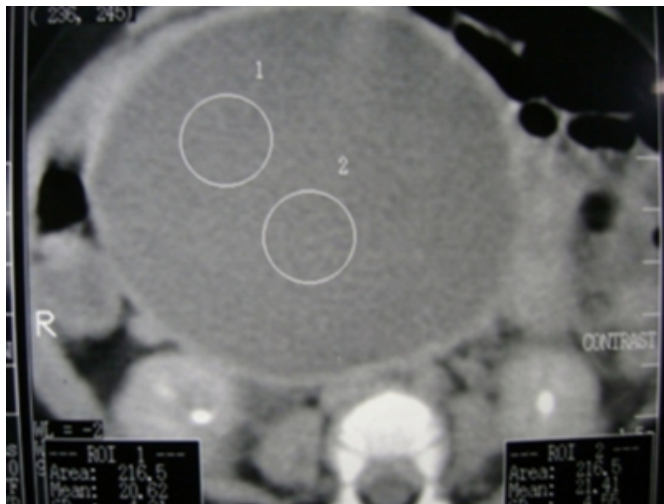
Figure 2

Figure 2: Ultrasound shows a cystic structure in the pelvis



Figure 3

Figure 3: CT of the abdomen shows a fluid-filled vaginal cavity



The patient was planned for explorative laparotomy. An infraumbilical transverse incision was made and a distended vaginal lump with normal uterus on top with adherent bowel loops on the posterior-superior surface was found [figure-4].

Figure 4

Figure 4: Peroperative photograph showing distended vagina with uterus on top



An opening was made on the anterior distended portion of the vaginal wall and around 600ml of pus were aspirated [figure 5].

Figure 5

Figure 5: Pus was aspirated from the vaginal cavity



After cleaning the cavity, see the lower limit of the vagina (by Hegar dilater) that was approximately 2cm proximal to the normal vaginal opening in the vestibule.

A U-flap was made in the posterior vestibule and by blunt dissection the blind vaginal pouch was identified which was cut after taking a stay suture and vaginoplasty was done by taking mucocutaneous stitches [figure 6].

Figure 6

Figure 6: Vaginoplasty was done from the perineum



The abdomen was closed after putting a malecots catheter in the vaginal cavity for irrigation as a vaginostomy. The postoperative course was uneventful and the baby was discharged with regular follow-up on OPD basis.

DISCUSSION

Vaginal atresia is estimated to occur in 1 in 5,000-10,000 live female births. Congenital vaginal obstruction is probably caused by incomplete canalisation of the vagina that occurs during the fifth month of gestation. The hymen occurs at the junction of the sinovaginal bulbs with the urogenital sinus and usually perforates during fetal life [2]. The anomaly is often undetected until adolescence, when primary amenorrhea or abdominal pain due to an obstructed uterovaginal tract prompts a diagnostic evaluation [4]. Vaginal atresia is reported to be the second most common cause of primary amenorrhea in tertiary care centers [7]. The etiology of vaginal atresia is obscure. A genetic factor has been suggested in a few cases, usually in association with other anomalies such as polydactyly and congenital heart disease [3, 5, 6, 8, 9]. Neonatal hydrocolpos may present either as an asymptomatic lower abdominal mass or when adjacent organs are compressed by the distended vagina. It may rarely become infected, especially if a fistula with the urogenital sinus is present. Infected hydrocolpos or pyocolpos may result in life-threatening sepsis. The differential diagnosis of a lower abdominal mass in an infant includes ovarian cyst or tumor, bladder neck obstruction, intestinal duplication cyst, and sacrococcygeal teratoma. An excretory urogram is essential in establishing the diagnosis. Some degree of hydroureter or hydronephrosis is expected in most patients

with hydrocolpos. Ultrasonography is also an important diagnostic measure in determining the nature and origin of the mass and in evaluating the status of the urinary system. Each examination of a newborn should include an inspection of the genitalia because absence of the vagina or atresia can be detected during this simple evaluation. Vagina atresia and agenesis are congenital anomalies of the female genitourinary tract and may occur as an isolated developmental defect or as part of a complex of anomalies. Examples of some of these associations include the Rokitansky-Mayer-Küster-Hauser (RMKH) syndrome, Bardet-Biedl syndrome, Kaufman-McKusick syndrome, Fraser syndrome, and Winter syndrome. Delayed detection is common and can result in major risk to the female patient because of associated urinary tract anomalies. Early detection is possible if healthcare providers include a genital examination as part of their well-child examination.

CORRESPONDENCE TO

Dr. Punit Kumar Srivastava, MS Senior Resident
Department of Pediatric Surgery Institute of Medical
Sciences BHU Varanasi, INDIA Email:
contact2ps@rediffmail.com

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Author Information

Punit Srivastava

Senior Resident, Department of Pediatric Surgery, Institute of Medical Sciences, Banaras Hindu University

AN Gangopadhyay

Professor, Department of Pediatric Surgery, Institute of Medical Sciences, Banaras Hindu University

SP Sharma

Reader, Department of Pediatric Surgery, Institute of Medical Sciences, Banaras Hindu University

VD Upadhyaya

Research Associate, Department of Pediatric Surgery, Institute of Medical Sciences, Banaras Hindu University

V. Kumar

Lecturer, Department of Pediatric Surgery, Institute of Medical Sciences, Banaras Hindu University

Richa Jaiman

Lecturer, Department of Pediatric Surgery, Institute of Medical Sciences, Banaras Hindu University