A Rare Case of Hydrometrocolpos in a Neonate with Persistent Cloaca

Rajendran R[a], Samir Morsi Hegab[a]

a. Department of Pediatric Surgery, MCH, Najran, Saudi Arabia.*

Published on 30th March 2026

A full-term newborn presented with imperforate anus and a grossly distended lower abdomen, with a palpable cystic mass reaching the level of the umbilicus. Perineal inspection revealed a single perineal opening located in the female-like genital area **(Figure A).** Catheterization of this single orifice successfully drained urine, confirming a persistent cloaca. Preoperative X-ray examination (Invertogram) revealed high anorectal malformation (ARM) **(Figure B).** (Prone cross-table lateral view Xray examination is currently practised instead of invertogram). Preoperative abdominal ultrasound suggested a massive fluid collection behind the bladder. At laparotomy, a tense, bilobed pelvic mass was identified, representing a massive hydrometrocolpos (distension of the vagina and uterus with secretions) **(Figure C).** The two "horns" seen on the upper part of the mass represent double uterus(uterus didelphys) or bicornuate uterus which is frequently associated with complex cloacal malformations. This distension was secondary to the high-pressure common channel shared by the urinary, genital, and gastrointestinal tracts.

The immediate surgical goals were decompression and fecal diversion. The procedures included:

1) Tube Vaginostomy: To drain the hydrometrocolpos and prevent further compression of the ureters and diaphragm. 350ml turbid yellow fluid with debris drained immediately.

2) High Divided Sigmoid Colostomy: To manage the anorectal malformation and prevent fecal contamination of the urinary tract **(Figure D).**

DISCUSSION

Persistent cloaca is the most complex form of anorectal malformation (ARM) in females, occurring when the rectum, vagina, and urinary tract fail to separate and instead converge into a single common channel. Hydrometrocolpos is present in approximately 30–50% of cloaca cases. It occurs because the vaginal secretions, stimulated by maternal hormones, cannot drain through the narrow common channel. This can lead to:

1. Ureteric obstruction: Resulting in bilateral hydroureteronephrosis.
2. Respiratory distress: Due to the massive abdominal mass elevating the diaphragm.
3. Peritonitis: In cases of rupture.

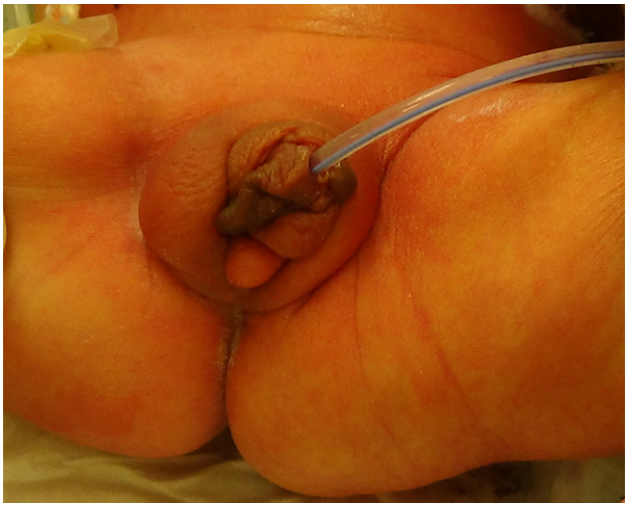

Figure A. Feminine genitalia with single perineal opening through which urinary catheter is passed into bladder.

Cite this article as: Rajendran R, Hegab SM. A Rare Case of Hydrometrocolpos in a Neonate with Persistent Cloaca. Kerala Medical Journal. 2026 Mar 30;19(1):37-38.

Corresponding Author:
Dr. (Prof). Rajendran. R, Department of Pediatric Surgery and Pediatric Urology, GG Hospital, Trivandrum, Kerala, India.
Email: pedsurgdrraj57@yahoo.in

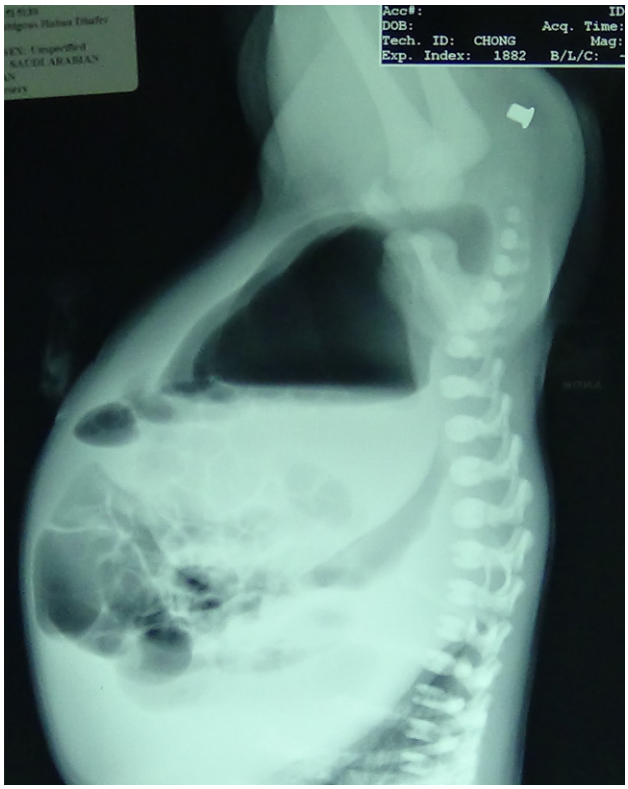

Figure B. Invertogram showing high anorectal malformation and air-fluid level in cystic mass

KEY LEARNING POINTS

- In any female neonate with an imperforate anus, a meticulous examination of the perineum is mandatory to count the number of openings.
- A palpable abdominal mass in a patient with a cloaca should be presumed to be hydrometrocolpos until proven otherwise.

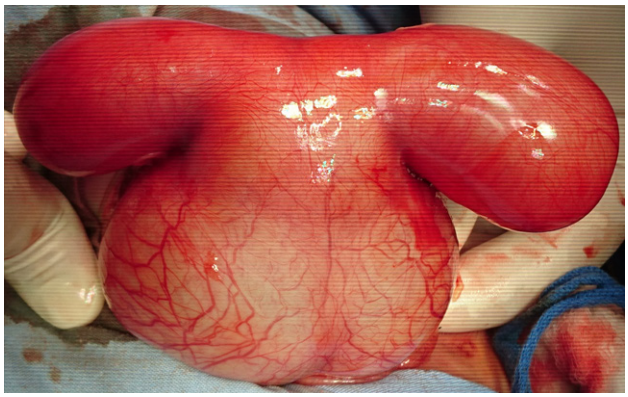

Figure C. C.bilobed mass of hydrometrocolpos

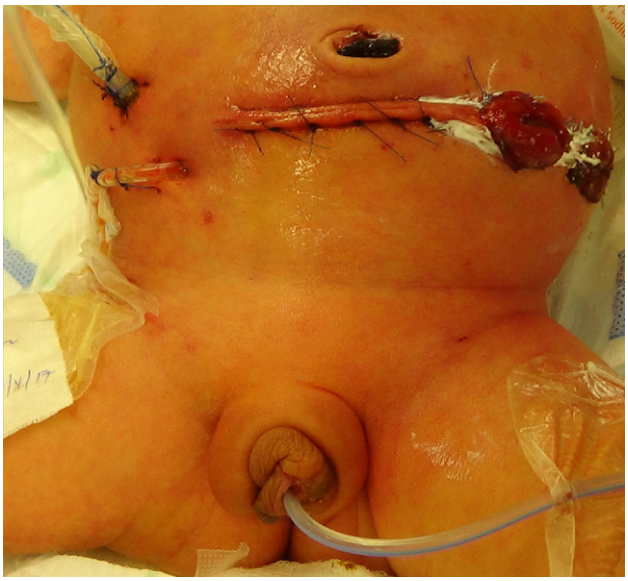

Figure D. Tube vaginostomy+colostomy+urinary catheter drainage

- Early decompression of the vagina is very critical to protect renal function and ensure the survival of the neonate. High sigmoid divided colostomy is essential for fecal diversion and to prevent fecal peritonitis.
- Definitive reconstructive surgery[1] is performed at 6-8 months of age. It consists of a) Posterior Sagittal Anorectoplasty b)Total Urogenital Mobilisation OR Urogenital separation for separation of urethra and vagina. This is followed by colostomy closure 2-3 months later.

END NOTE

Author Information

1. Dr (Prof). Rajendran.R, Department of Pediatric Surgery, MCH, Najran, Saudi Arabia.
2. Dr.Samir Morsi Hegab, Department of Pediatric Surgery, MCH, Najran, Saudi Arabia.

Conflict of Interest: None declared

REFERENCE

1. Al-Shamaileh TY, Mayhew AC, Varda BK, Levitt MA. Surgical reconstruction in cloacal malformations. In: Levitt MA, editor. Cloacal Malformations: Case Studies. Boca Raton (FL): CRC Press; 2024. p. 26-62.