



Case Report

Male cloaca: A rare case report

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Abstract:

Cloacal malformation is a rare condition that usually referred only to females. We are reporting a very rare case of cloacal malformation variant in a 6-years-old boy who presented with absent anal opening along with hypospadiac penis with chordee with passage of urine and stool from an abnormal opening in the penoscrotal region.

Keywords:

cloaca, ARM, rectourethral fistula, proximal hypospadias

Introduction:

Persistent cloaca is the complex deformity in female anorectal, vaginal, and urogenital malformations. It is defined as a defect in which the rectum, vagina and the urinary tract converge into one common channel. It is very rare and occurs in 1:50,000-1,25,000 newborns. It is regularly referred only to females [1,2]. It is physiological in some animal species like amphibians, reptiles, birds and egg-laying mammals (monotremes). However, in humans, it represents a malformation that occurs at a very early stage of gestation [3].

Case report:

A 6-year-old male (46XY) presented with a single opening in the penoscrotal region through which urine and stool passes. He had good control of micturition and defecation, but passage of stool was very difficult. Testes were bilaterally descended and the penis was hypospadiac with severe chordae, penoscrotal transposition and bifid scrotum. An anal dimple

was present at the expected anal site with pigmentation. Hormonal tests are normal. X-ray of the lumbosacral spine was normal. Ultrasonography (USG) found no other abnormality. RGU and MCU showed recto-urethral fistula. Two openings, urine coming through the anterior one and stool through posterior one can be seen by naked eye with retraction of the margin of the opening. Cystoscopic examination showed a common channel of about 2.5 cm in length with separate openings for the rectum and urinary tract. Anorectoplasty by perineal hole method was done. Repair of hypospadias will be done latter. Postoperatively his urinary and bowel habits were normal.

Discussion:

Embryologically both sexes have a cloaca, even though the surgical literature mainly mentions females as having cloacal malformations, males can also have cloacal abnormalities. The spectrum of cloacal abnormalities may result from a partial to complete urorectal septum malformation. In the

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literature, different names are suggested to these anomalies, such as cloacal dysgenesis, persistent cloaca, agenesis of the cloacal membrane, urorectal septum malformation (URSM) sequence, partial URSM sequence, female pseudohermaphroditism with anorectal, Mullerian duct and urinary tract malformation, cloacal malformation and exstrophy of the urorectal septum [1,2,4,5]. Sharma et al. described similar five cases and named as perineal mound and genital-fold defects which including three with imperforate anus with rectobulbar fistula and perineal hypospadias [6]. Chatterjee et al. describes two cases of a malformation in male used a different term "rectourinary perineal fistula" which we consider, now could be male cloacal variants [7]. The differential diagnosis of male cloaca is anorectal malformation with rectourethral fistula (or rectovesical fistula) with proximal (perineal) hypospadias [1].

Banu et al. reported males with recto-urethral fistula (RUF) have single opening in perineum but they lack a common channel where the urethra and rectum unit instead the rectum opens into the urethra throughout its course and additionally, the term common channel is not used for RUF. However, males with cloacal variants have a common channel where urethra and rectum, with or without vagina, join and which does not have internal characteristics of a urethra [2]. But from the literature, we found of male cloaca and anorectal malformation with rectourethral fistula with proximal hypospadias, both conditions have common wall between urethra and rectum [8]. And also, there are no differentiating points between them. Our case also had two opening with common wall. So, we think both disorders are same with different term.



Figure 1: Rectrourethral fistula (Male cloaca)



Figure 2: Male cloaca separate opening



Figure 3: Perineal hole method



Figure 4: Anorecto and urethroplasty

Conclusion:

There is no specific point to differentiate between male cloaca and recto-urethral fistula type of anorectal malformation associate with proximal penile hypospadias. So, I think both are synonymous.

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Conflicts of interest

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References:

1. Gupta R, Sharma P, Shukla AK, Goyal M, Gupta A. Cloacal Malformation Variant in a Male Neonate. *J Indian Assoc Pediatr Surg*. 2018 Apr-Jun;23(2):106-108.
2. Banu T, Chowdhury TK, Hoque M, Rahman MA. Cloacal malformation variants in male. *Pediatr Surg Int*. 2013;29:677-82.
3. Sharma S, Gupta DK. Male cloaca malformation: rare variant of anorectal malformation. *Pediatric surgery international*. 2015 Aug; 31:747-52.
4. Qureshi F, Jacques SM. Cloacal abnormalities in male fetuses. *J Ultrasound Med*. 2012;31:2046-7.
5. AbouZeid AA, Mohammad SA, Sos MR, Guirguis NN, Mahmoud HA, El-Mahdy M. Cloaca-like anomalies in the male: a report on two cases. *European Journal of Pediatric Surgery Reports*. 2022 Jan;10(01):e93-7.
6. Sharma AK, Goel D, Kothari SK. Perineal-mound defects. *Pediatric surgery international*. 1999 May; 15:227-9.
7. Chatterjee SK, Basu AK, Chatterjee VS (2005) Recto perineal urinary fistula-a unique anomaly. *J Pediatric Surg* 40(10): 1658-1661.
8. Bischoff A, Levitt MA, Pena A. Laparoscopy and its use in the repair of anorectal malformations. *J Pediatr Surg* 2011;46:1609-17.