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Case Report

A Case of Congenital Urethrovaginal Fistula in a Female Child with Suspected Imperforate Hymen: A Case Report

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Abstract

Urethrovaginal fistula is an abnormal communication between the urethra and vagina. Urethrovaginal fistula results in urinary incontinence with urine continually leaking from the vagina. In children congenital anomaly may also be the cause. Congenital Urethrovaginal fistula is an extremely rare genitourinary anomaly. The reported five cases in the literature are all associated with urogenital abnormalities like vaginal septum, vaginal agenesis and imperforate hymen.

We present a case of a 7-year-old female that was referred from a peripheral hospital for micturating cystourethrography (MCUG) on account of urinary incontinence and passage of urine from vaginal orifice.

Following MCUG the urethra, proximal fistula between the urethra and vagina, distended urinary bladder, contrast opacified uterus and a fallopian tube were all demonstrated.

We report this case because of its rarity in the literature.

Keywords: congenital, urethrovaginal fistula, female

Introduction

Urethrovaginal fistula is a communication between the urethra and the vagina. This is the common urethrogenital fistula in female. Urethrovaginal fistulae are a rare condition especially the non-congenital form due to advances in obstetric care and surgical procedures [2, 3]. This is often iatrogenic from postsurgical procedure, obstetric complication, pelvic trauma, neoplasm and pelvic irradiation [1, 4]. In children congenital anomaly may also be the cause1.congenital Urethrovaginal fistula is an extremely rare genitourinary anomaly [5, 6]. The reported five cases in the literature are all associated with urogenital abnormalities like vaginal septum, vaginal agenesis and imperforate hymen [5, 6, 7].

The etiology of congenital Urethrovaginal fistula is unknown and remains an extremely rare genitourinary anomaly [8].

Urogenital fistulas may be located at different levels and occur most often in a traumatic context [9].

Urethrovaginal fistula results in urinary incontinence with urine continually leaking from the vagina [4].

The symptoms of Urethrovaginal fistulae are largely dependent on the size and location of the fistula along the urethral lumen4. Fistula located at bladder at are associated with continuous urinary incontinence. Proximal fistulae can be associated with stress incontinence while distal fistulae beyond the sphincteric mechanism may be asymptomatic or maybe associated with splayed urinary stream [4].

The mainstay of treatment is surgical, this comprise of excision of the transverse vaginal septum and closure of the urethrovaginal fistula [5, 6].

Case Report

This is a 7-year-old female that was referred from a peripheral hospital for micturating cystourethrography on account of urinary incontinence and passage of urine from vaginal orifice.

No previous history of pelvic trauma or pelvic or gynaecological and surgical treatment or procedures.

The patient is the fifth sibling of the family of seven children, no family history of similar occurrence or any obvious congenital anomaly.

The patient is oriented, not pale, anicteric acyanosed, not dehydrated, not in obvious respiratory difficulty.

Urine microscopy yielded growth of Escherichia coli, microscopy demonstrated pus cells, no urine sugar or protein was detected.

A lateral view of the micturating cystourethrogram demonstrated a fully distended urinary bladder anteriorly, a posteriorly located uterus, fallopian tubes posteriorly, and the urethro-vaginal fistula distally which is most likely above the sphincter (figure 1).

Attempts to introduce a catheter and a feeding tube through the perineal opening was not successful most likely from an imperforate hymen.

The patient as at the time of this report is been prepared for surgical closure of the urethrovaginal fistula, the parents are yet to consent and prepare for the surgery.

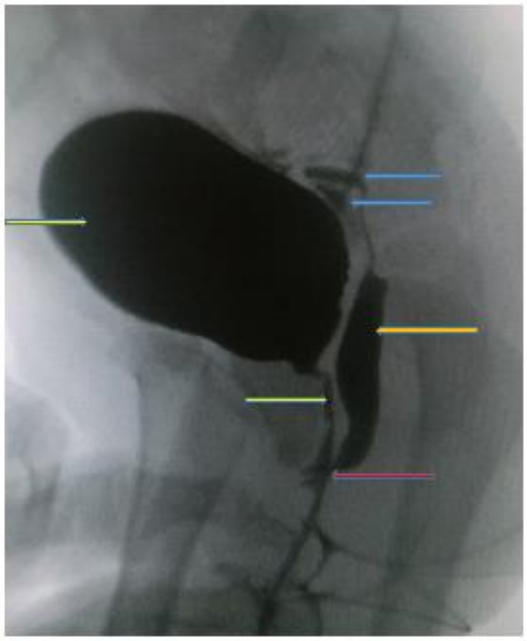

Figure 1: *A lateral view of a micturating cystourethrogram (fluoroscopic image) showing a fully contrast distended urinary bladder anteriorly (right yellow arrow), a posteriorly located uterus (left brown arrow), fallopian tubes (left blue arrows) and the urethro-vaginal fistula (left red arrow).*

Discussion

Congenital Urethrovaginal fistula (CUVF) is very rare and often associated with various urogenital anomalies. This is very rare and seen in females, this case of ours happens to be a female diagnosed of CVUF.

The common presentation is that of urinary incontinence which the main presenting complaint of this reported case is.

No previous history of pelvic trauma or pelvic or gynaecological and surgical treatment or procedures were reported in this case; this is also same as the other reported cases of CUVF in the literature.

In this case, several attempts at introducing a catheter and feeding tube through the vaginal orifice but this was arrested raising a strong suspicion of an intact hymen. Similarly we performed a pelvic ultrasonography which showed some fluid collection within the distended uterine cavity.

A fistulous tract was delineated following a micturating cystourethrography (MCUG) and a contrast filled bladder anteriorly, a posteriorly located uterus with a fallopian tube confirming the diagnosis of CUVF; most cases reported had MCUG and similar findings were also reported.

Surgical excision of the transvers septum with closure of the urethrovaginal fistula is the mainstay of treatment documented in the literature, the index case is not an exception, similar treatment option was also offered conforming to that documented in the literature.

Conclusion

Congenital Urethrovaginal fistulas are rare and the few reported case were associated with urogenital anomalies like imperforate hymen. Maturating cystourethrography plays a vital role in its radiologic diagnosis.

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