

The Urethral Prolapse, a Rare Cause of Genital Bleeding in Girls: Report on Three Cases

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Abstract

Long considered a disease of elderly women, urethral prolapse is increasingly found in girls, mostly African. It is a rare disease which causes eversion of the urethral mucosa through the meatus. Such pathophysiology, still debated, contrasts with the purely clinical diagnosis in the presence of genital bleeding or vulva swelling more or less painful, and bleeding when touched. Surgical treatment gives excellent results.

We hereby give details of our experience across three cases of urethral prolapse supported surgically with good results.

Keywords: Urethral prolapse; Urethral mucosa; Genital bleeding; Perineal trauma

Introduction

Urethral prolapse is an eversion of the urethral mucosa through the meatus. It is uncommon and usually found at extreme ages (children and menopausal women). The diagnosis is purely clinical; it is done when genital bleeding or dysuria with vulva swelling occur.

Our purpose in this study is to report our experience with three cases of urethral prolapse in girls, all being surgically carried out at the regional hospital of Ziguinchor (Senegal).

Observation 1

A girl aged 5 was admitted in emergency for genital bleeding with presence of clots which has been noticed by her mother during her toilet. The clinical picture had been underway for 2 hours approximately. There were no signs of puberty. The examination did not show evidence of perineal trauma. Recently a fit of chronic cough was noted due to suspected flu. Physical examination of this patient revealed a temperature at 37.2°C, 19 kg in weight, and a heart rate of 98 beats per minute. The examination evidenced the presence of blood clots out of the vestibule while fluid was leaking out. There was also a more or less rounded tumefaction on the upper part of the vulva. This swelling was blackish holed in the middle releasing urine as dipping palpation of the hypogastrium was carried out with clotting occurrence (Figure 1). It was very painful and bleeds at the slightest touch.

Her hemoglobin was 10.8g/dL, 34.4% hematocrit, 5400 white blood cells/mm³ and platelets count of 244,000/mm³. Her blood group was 0 and Rh-D positive. After brief resuscitation measures and under general anesthesia, rectal prolapse surgery was performed using electrocautery, with a *Foley catheter* fitted, and followed by interrupted muco-mucosal sutures. The postoperative course was uneventful, and

the patient returned home 48 hours after the procedure. After six months' decline in the disease, she was asymptomatic.



Figure 1: Preoperative treatment of urethral

Observation 2

A little girl of five had been examined in emergency for heavy vaginal bleeding and vulva swelling noticed by her mother during grooming. The examination did not find any perineal trauma or sexual abuse. The inspection helped reveal blood clots out of the vestibule as fluid leaked out. The hemoglobin level was 11 g/dL, there was no leukocytosis and platelet levels were normal. Hemostasis tests and cytobacteriological examination of urine showed no abnormalities. After debridement, a gynecological examination objectified a 2-cm ulcerated swelling of the vulva, around the urethral meatus, bleeding at the slightest touch, and seating on top of an intact hymen. The diagnosis of urethral prolapse was adopted for this patient. Given the persistence of bleeding and pain, a decision was made to operate on subsequent to a preoperative assessment that showed mild anemia corresponding to 10.7 g/dl. Under general anesthesia, rectal prolapse surgery was performed using electro cauter, fitted with a *Foley catheter*, and followed by muco-mucosal sutures (Figure 2). The postoperative course was uneventful, so she left the hospital on the

third day of hospitalization after removal of the urinary catheter on D2. After a 7-month decline, she was asymptomatic.



Figure 2: Prolapsus resection

Observation 3

A 3 and a half year old girl was admitted in emergency for genital bleeding with presence of clots. The clinical picture has been going on for 24 hours according to her grandmother. The examination did not give evidence of perineal trauma. Physical examination revealed an afebrile patient, weighing 15 kgs, a heart rate of 105 beats per minute. The examination showed the presence of blood clots out of the vestibule when fluid was leaking out. There was also a more or less rounded tumefaction on the upper part of the vulva. This swelling was blackish holed in the middle which released urine as dipping palpation of the hypogastrium was carried out with clotting occurrence. It was very painful, and it would bleed at the slightest touch.

Her hemoglobin was 10 g/dL, hematocrit was 38%, white blood cells 7400/mm³ and platelets count of 234000/mm³. Her blood group was 0, and Rhesus positive.

After preparing the patient, rectal prolapse surgery was performed using electro cautery, with a *Foley catheter*, and followed by interrupted muco-mucosal sutures. The postoperative course was uneventful, therefore the patient returned home 48 hours after the procedure. After a decline of 2 months, she became asymptomatic.

Discussion

Urethral prolapse is an exclusive pathology at either end of the age scale among female subjects [1-4]. Its description in the black patient is prone to controversy at the onset of case series in Russian or Asian publications. Age, at which disorder occurred in children, around 5 years, is a universally recognized figure in literature and currently observable in our case [1-5].

Its pathogenesis remains poorly described while assuming weak insertion of internal, circular, external oblique longitudinal muscle fibers, and the urethral mucosa remains most common [3,4]. So, abdominal pressure is reported to have caused the weakening of the structures and facilitated at the same time the occurrence of urethral prolapse [1,2]. This assumption is valid in one of our patients following recent chronic cough history. For some authors, perineal trauma and estrogen deficiency were deemed to be aggravating factors [1-4]. The protruding lining around the sphincter explains edema in strangulation.

The clinical presentation of urethral prolapse is almost unanimous among all authors. This consists of vulva swelling, genital bleeding and acute dysuria or urinary retention [1-3,6,7]. An incidental finding of vulva swelling is still possible though rare [1,4,5].

Clinically occurring as a swelling is apparent through the urethral meatus entailing eversion of the urethral mucosa.

This swelling is circular when the prolapse is complete. Complications of urethral prolapse are represented primarily by genital bleeding as in our case, or by an ischemia, see necrosis of the urethral mucosa [1-5]. Genital bleeding in these cases can make a differential diagnosis with other causes of genital bleeding in girls (trauma, infection, tumors) [1,3,7]. Necrosis of such mucosa exposes additionally to the risk of occurrence of stenosis of the urethral meatus whereby the interest of flow measurement during operated patients' monitoring.

Conservative or surgical treatment may be done in the advent of urethral prolapse.

Conservative treatment based essentially on the application of hip bath associated with local anti-inflammatory medication, estrogen cream and antibiotics is especially recommended as first line treatment for simple prolapse [1,3].

On the other hand, in case of complicated prolapse or genital bleeding or severe urinary disorder (dysuria and acute retention of urine) the surgical treatment which involves two techniques [1-4] shall be done.

The Doria technique consists of ligating the prolapse around a Foley catheter is no longer valid because this may expose to the risks of complications (pain, infections, especially recurrence) [1,5]. Complete and circumferential surgical excision of mucosal prolapse after installing a urinary catheter [1-5]. This procedure, which remains the most used with better results in the short and long term, has been adopted in all our patients. The surgical removal of the lining works well as it was observed in our case and with several authors [1-5].

Conclusion

Urethral prolapse is mostly found in children and especially in African girls. The diagnosis is mainly clinic. Urethral prolapse has predisposing factors and its management has multiple techniques. However surgical treatment provides better results.

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