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Management of Urethral Prolapse in Girls at the Jeanne Ebori Foundation Mother-Child University Hospital: A Report of 7 Cases

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Abstract: Introduction: Urethral mucosal prolapse is the circumferential eversion of the urethral mucosal epithelium through the urethral meatus. The objective of this study was to report the epidemiological, diagnostic and therapeutic aspects of urethral prolapse in our setting. **Materials and Methods:** We present here the experience of the pediatric surgery department at the Jeanne Ebori Foundation Mother and Child University Hospital. We conducted a retrospective descriptive study of 7 patients treated for urethral prolapse in our department between 2019 and 2023. **Results:** The mean age of the patients, all female, was 4.6±2.9 years, with a range of 2 to 11 years. The main reason for consultation was genital bleeding. All patients underwent surgical treatment. Postoperative recovery was uneventful in all cases. **Conclusion:** Urethral prolapse remains a rare condition in prepubertal girls of black race. Although benign, its initial, often hemorrhagic form can pose a medico-legal problem due to suspicion of rape or sexual assault. Diagnosis is clinical. The outcome of surgical treatment is satisfactying.

Keywords: Urethral Prolapse-Girl - Libreville

INTRODUCTION

Urethromucosal prolapse is the circumferential eversion of the urethral mucosal epithelium through the urethral meatus [1]. This protrusion presents as a more or less large, strawberry-like, pinkish, or purplish, rounded swelling, resembling a tumor, located below the clitoris with a central opening that can be catheterized.

Its incidence in the pediatric population is estimated at 1/3000 [2] and it is frequently observed in Black girls [3]. The causes of its occurrence remain unclear. However, certain factors have been implicated, including trauma, urinary and vaginal infections, redundancy of the urethral mucosa, obesity, estrogen deficiency and low socioeconomic status [4].

The diagnosis is primarily clinical [5]. The discovery of genital bleeding by parents poses a medico-legal problem [5]. There are few studies on the subject in our country, which is why we set ourselves the objective of reporting the epidemiological, diagnostic and therapeutic aspects of urethral prolapse at the Jeanne Ebori Foundation in Libreville, Gabon.

MATERIALS AND METHODS

This was a retrospective, single-center, descriptive study conducted over a 5-year period from January to December 2023 in the Pediatric Surgery Department of the CHUMEFJE (University Hospital of Gabon, France and the surrounding area).

All prepubertal female patients admitted and treated for urethral prolapse at the CHUMEFJE in Gabon were included in this study.

The variables studied were age, weight, reason for consultation, medical history (socioeconomic status, cough, constipation, overweight, malnutrition, hereditary disease), physical examination findings, laboratory results (complete blood count, urine dipstick), surgical treatment, length of hospital stay and postoperative outcomes.

RESULTS

We collected 7 cases of urethral prolapse over a 5-year period, representing a frequency of 1.4 cases per year.

The mean age of our patients was 4.6±2.9 years, with a range from 5 months to 8 years. The 2-8 year age group was predominant, with 5 out of 7 patients.

In their medical history, 2 patients had a cough, 1 had constipation and 2 had a urogenital infection, one of whom had sickle cell disease.

Clinically, genital bleeding was the main reason for consultation. All patients came from families with a low socioeconomic status and were Black. Cough accompanied the symptoms in 2 patients and constipation in one patient. One patient presented with malnutrition. Clinical examination revealed a circumferential, purplish, edematous swelling that bled on contact in all patients. Urine culture and sensitivity testing revealed Staphylococcus aureus in one patient. Only one patient presented with leukocytosis and anemia (hemoglobin 7 g/dL); she had sickle cell disease.

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The average time to treatment was 0.8±0.4 days. All patients underwent surgical treatment consisting of circumferential excision of the prolapsed mucosa over an 8 or 10 Fr Foley catheter, followed by muco-mucosal sutures with interrupted stitches using 4/0 Vicryl absorbable thread. After removal of the bladder catheter, the immediate postoperative course was satisfactory, as was the functional and aesthetic result with a one-year follow-up.

DISCUSSION

Urethropelvic Inflammatory Disease (UID) in girls is a rare condition affecting Black girls, as confirmed by the study by Liu [1] in Japan and others in the literature. This is further supported by the hospitalization rate in our study, which was 1.4 years and by the studies of Ndour *et al*. [2] and Sandaa *et al*. [3].

The mean age of onset of UI in our study was 4.6±2.9 years. Our study is similar to that of Maman *et al*. [4] in Niger, where the mean age of onset of UI was 5.6 years and that of Ndour *et al*. [2] in Senegal [3], where the mean age of onset was 4.02±2.4 years. Other authors, however, describe this phenomenon at menopause [4]. This is thought to be due to low estrogen levels.

In our study, two patients had a history of chronic cough, one associated with constipation, another with obesity, one with a history of malnutrition and the others presented no particular characteristics. Ndour [2] in Senegal, reported patients with constipation, urinary tract infection and urogenital trauma. Urethral prolapse is thought to be linked to a failure of adhesion between the striated muscle fibers and the lamina propria of the urethral mucosa. The area of weakness in the periurethral tissues is put under stress by abdominal pressure occurring during constipation, chronic cough, or physical exertion [5]. Fiogbe *et al*. [6] describe perineal trauma, genitourinary infections, malnutrition, low socioeconomic status and excess urethral mucosa as factors contributing to the development of urethral prolapse.

There are numerous circumstances under which urethral prolapse may be discovered. The main reason for consultation was genital bleeding followed by a case of suspected rape. Smith describes in his study the numerous confusions made between urethral prolapse and suspicions of sexual assault [7].

All patients presented with a purplish-pink swelling in the genital area on clinical examination. Paraclinical examinations are not useful in the diagnosis of urethral prolapse. Data from the literature confirm that the diagnosis of this condition is clinical [8].

Two main therapeutic strategies are described for the management of this condition. One is medical, consisting of topical creams containing estrogen, antibiotics, anti-inflammatories and sitz baths, as in the cases of Seck *et al*. [9] and Armand Mayala Ma Mayala *et al*. [10]. The other is surgical, either as a second-line treatment in cases of recurrence, persistence, or strangulation [7], or performed as a first-line procedure, as in our series. All our patients were treated surgically by circumferential resection of the prolapsed mucosa, followed by muco-mucosal suturing with a Foley catheter in place. Several, like Sanda, *et al*. [3], Ndour *et al*. [2] and Amadou *et al*. used the same method.

Ninomiya and Koga [11] in Japan used both methods and found a significant recurrence rate after medical treatment. Added to this is the difficulty in obtaining the cream. He concluded that immediate surgical treatment is the best alternative. Finally, Hilali *et al*. [12] describes a mechanical reduction method in his study that appears to have been effective. Urinary catheter removal was performed in all our patients on postoperative days 4-5 to avoid urethral meatal stenosis, while Da Silva in Ivory Coast removed it immediately after the procedure and Ndour *et al*. [2] left it in place for 72 hours postoperatively. Our patients were kept under observation for 24-48 hours postoperatively, while Maman *et al*. [4] maintained them for 48-72 hours postoperatively; whereas Da Silva advocates for outpatient surgery or surgery as soon as the first postoperative voiding occurs [1]. We had no complications or post-operative recurrence, results similar to some authors [1,4] and unlike others who reported dysuria or burning during urination secondary to bladder catheterization [2,3].

These results reaffirm that surgical excision has good long-term outcomes and is an appropriate treatment for urethral prolapse.

CONCLUSION

Urethral prolapse remains a rare condition in prepubertal girls, but is frequently encountered in Black girls from low socioeconomic backgrounds.

Although benign, it can be complicated by genital bleeding and pose a medico-legal problem, as the bleeding may raise suspicions of rape or sexual assault. The diagnosis is clinical. The outcome of surgical treatment, which is primarily therapeutic and then cosmetic, remains satisfactory to date.

REFERENCES

[1] Liu, C. *et al*. "Urethral prolapse in prepubertal females: report of seven cases." *Journal of Obstetrics* and *Gynaecology Research*, vol. 44, no. 1, 2018, pp. 175–178.

[2] Ndour, O. *et al.* "Le prolapsus de la muqueuse urétrale chez la fillette: à propos de 12 cas et revue de la littérature." *African Journal of Urology*, vol. 23, no. 4, 2017, pp. 359–363.

[3] Sanda, G.O. *et al*. "Le prolapsus muqueux de l'urètre chez la fillette: à propos de 22 cas colligés en dix ans et une revue de la littérature." *African Journal of Urology*, vol. 18, no. 2, 2012, pp. 93–96.

[4] Maman, B.H. *et al*. "Le prolapsus de la muqueuse urétrale chez la fillette: à propos de 9 cas et revue de la littérature." *JACCR Africa*, vol. 4, no. 3, 2020, pp. 603–609.

[5] Issa, A. "Prolapsus urétral chez la fille en chirurgie pédiatrique du CHU Gabriel Touré, Bamako, Mali: À propos de 18 cas." *Service d'urologie et d'andrologie*, 2015. Ait, O. "Diverticule urétrale chez la femme: à propos de 5 cas." Doctoral thesis, Faculté de Médecine et de Pharmacie, Fès, Royaume du Maroc, 2018, p. 146.

[6] Fiogbe, M.A. *et al*. "Urethral mucosal prolapse in young girls: A report of nine cases in Cotonou." *African Journal of Paediatric Surgery*, vol. 8, 2011, pp. 12–14.

[7] Da Silva-Anoma, S. *et al.* "Le prolapsus muqueux de l'urètre de la fillette en Côte d'Ivoire." *Annales d'Urologie*, vol. 35, no. 1, 2001, pp. 60–63.

[8] Ballouhey, Q. *et al*. "Benefits of primary surgical resection for symptomatic urethral prolapse in children." *Journal of Pediatric Urology*, vol. 10, no. 1, 2014, pp. 94–97.

[9] Seck, N.F. *et al.* "Conservative management of urethral prolapse in African girls: A report of 15 cases." *African Journal of Urology*, vol. 28, 2022, p. 26. https://doi.org/10.1186/s12301-022-00293-8.

[10] Armand Mayala Ma Mayala, *et al.* "Diagnosis and management of a urethral prolapse in a 6-year-old girl: A case report." *Pan African Medical Journal*, vol. 39, 2021, p. 284. DOI: 10.11604/pamj.2021.39.284.30954.

[11] Ninomiya, T. and Koga, H. "Clinical characteristics of urethral prolapse in Japanese children." *Pediatrics* International, vol. 59, no. 5, 2017, pp. 578–582.

[12] Hilali, M. *et al.* "Prolapsus urétral chez la fille: à propos de cinq cas." *Archives de Pédiatrie*, vol. 21, no. 5, 2014, p. 569.