

Mucosal Prolapse of the Urethra in Little Girls about 11 Cases at the Urology Department of the Sino-Guinean Friendship Hospital in Conakry (Guinea)

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Abstract

Introduction: Urethral prolapse, a rare benign lesion of the female urethra, is considered unusual in children, but it is far from exceptional in girls aged 18 to 24. African origin. The diagnosis is clinical but can be overlooked or confused with other pathologies. Treatment remains controversial. The aim of this work is to study the epidemiological, clinical and therapeutic data of urethral mucosal prolapse in young girls in our department. **Materials and methods:** Retrospective and descriptive study on urethral mucosal prolapse in little girls identified from the hospitalization records of the Sino-Guinean Friendship Hospital in Conakry. The study period was 5 years. Patients were selected randomly. Outcome assessment focused on the occurrence of recurrences and urinary incontinence. The mean follow-up duration was 24 months. The parameters studied were: Age, clinical and histological findings, therapeutic data and patient outcomes. **Results:** The incidence of urethral mucosal prolapse in girls in the urology department was 2.2 cases/year. The mean age of the patients was 6.7 years (with extremes of 5 months and 10 years). The age group of 7 to 10 years was the most represented, observed in 63.63% of patients. The most frequent reason for consultation was vulvar bleeding in 7 patients, or 63.63%. Malpighian hyperplasia with a congested chorion was the most observed histological type, in 4 patients. Surgical treatment consisting of complete excision of the prolapsed part had given excellent results. **Conclusion:**

Urethral prolapse is a rare pathology, observed mainly in young black girls. Its diagnosis is based mainly on clinical examination. Surgical treatment gives satisfactory results, both clinically and aesthetically.

Keywords

Urethral Prolapse, Little Girl, Squamous Hyperplasia, Guinea, Conakry

1. Introduction

Urethral prolapse is the circumferential eversion of the epithelium of the distal urethra [1]. A relatively rare lesion, its incidence is estimated at 1/3000 and is observed mainly in black girls [2] [3]. The etiopathogenesis is poorly understood but some factors have been incriminated including trauma, urinary and vaginal infections, redundancy of the urethral mucosa, episodic increase in intra-abdominal pressure, estrogen deficiency and poor socio-economic conditions [4]. The diagnosis is clinical, the treatment is medical-surgical [1].

The lack of previous data motivated the launch of this study, the objectives of which were to describe the diagnostic and therapeutic aspects of urethral prolapse in girls.

2. Materials and Methods

This is a retrospective and descriptive study of urethral mucosal prolapse in young girls recorded from the hospitalization records of the urology department of the Sino-Guinean Friendship Hospital in Conakry. Patients were randomly selected. Outcome assessment was based on the occurrence of recurrences and urinary incontinence. The mean follow-up period was 24 months. The parameters studied were: age, clinical and histological results, therapeutic data and patient evolution.

3. Results

3.1. Epidemiology

3.1.1. Frequency

The incidence of urethral mucosal prolapse in girls in the urology department was 2.2 cases/year.

3.1.2. Age

The mean age of the patients was 6.7 years (with extremes of 5 months and 10 years). The age group of 7 to 10 years was the most represented, observed in 63.63% of the patients.

3.2. The Clinic

The most common reason for consultation was vulvar bleeding, observed in 7 patients (63.63%), followed by dysuria in 3 patients, urethrorrhagia in 2 patients and vulvar pain in 1 patient.

3.3. Pathological Anatomy

Squamous hyperplasia with congestive lamina propria was the most frequently observed histologic type, occurring in 4 patients, followed by polymorphic infiltrate with highly vascularized lamina propria and venous thrombosis in 2 patients each, and finally, inflammatory polymorphic hyperplasia and mucosal ectropion in 1 patient each.

3.4. The Treatment

In all cases, treatment involved surgical excision consisting of resecting the everted mucous bud, then performing careful suturing of the healthy urethral mucosa with the vaginal mucosa. An 8 to 10 Ch urethral catheter is left in place for an average of 48 hours. Daily local hygiene and antiseptic treatment are undertaken for 4 to 5 days.

3.5. Evolution

The results of surgical treatment were satisfactory both clinically and aesthetically for all patients, with a follow-up period of 24 months (**Figure 1**).



Figure 1. Postoperative urethral mucosal prolapse in girls.

4. Discussion

Urethral prolapse is a rare and benign pathology, observed mainly in black girls. Its frequency, variable according to sources, is estimated between 1 and 7.5 cases per year in Africa [5] [6]. Kouassi *et al.* reported an incidence of 4.2 cases per year [7].

This rate is higher than that of our study which revealed an incidence of 2.2 cases per year. However, this result is comparable to that of Amadou *et al.* who observed 2 cases per year [4].

The average age of onset varies between 4.02 and 7 years [4]. Ludovic Falandry found in his study an average age of 5.2 years [8], while Sanda *et al.* reported a

mean age of 6 ± 3.3 years [1].

For our part, we recorded an average age of 6.7 years. These different ages confirm that urethral prolapse is a pathology that mainly affects young girls who have not yet reached puberty, although cases have also been observed in older women [4].

The frequent involvement of black girls has been reported in several series, without any precise explanation being provided. The etiopathogenesis of urethral prolapse remains uncertain. Estrogen deficiency remains the main hypothesis, thus explaining the higher incidence of urethral prolapse in prepubertal girls and postmenopausal women. Other factors, such as trauma, use of urethral catheters and urinary tract infections, have also been incriminated [7]. Although considered to occur only in black girls, urethral prolapse also affects white girls: Fernandes *ET et al.* [9] report 14 cases in a series of 23 patients. Other studies reported from Russia, Poland and Korea confirm this observation [1]. Urethral prolapse, however, remains a pathology mainly observed in girls from disadvantaged socioeconomic backgrounds [1].

The diagnosis is primarily clinical. The diagnostic challenge is to differentiate it from condylomas in girls [4]. The circumstances of discovery vary, ranging from genital bleeding (which worries those around you) to pain. However, the typical clinical presentation remains that of a raspberry-shaped swelling, of variable volume, rounded, bleeding and often painful, located in the subclitoral position [4] (Figure 2). The most common accompanying signs are vaginal bleeding. This genital bleeding is most often a source of concern for parents because it is confused with sexual abuse [6] [10].



Figure 2. Preoperative urethral mucosal prolapse in girls.

In our study, vaginal bleeding was observed in 63.63% of our patients.

These bleedings would result from vascular congestion and edema of the prolapsed tissue surrounding the urethral meatus [11].

Urethral prolapse may be complicated by strangulation. When the urethra is strangulated, it becomes black, cyanotic, edematous, friable, and bleeding [12].

Several therapeutic strategies have been proposed, ranging from conservative options [13] towards more radical approaches [1] [5] [6]. Medical treatment combines sitz baths, antibiotics and anti-inflammatories [1] [14].

This medical treatment requires long-term follow-up, as recurrences have been reported up to 2 years after treatment [15]. Due to the risk of recurrence after medical treatment, several authors favor surgical treatment as first-line treatment. [7].

Surgical treatment, on the other hand, consists of excising the prolapsed mucosa [1] [2]. We chose surgery because of the risk of recurrence or partial reduction. The surgical technique adopted consisted of excision of the prolapsed mucosa followed by muco-mucosal suture, as described by the majority of authors [1] [2] [14].

The main complication reported in the literature after surgical treatment is acute urinary retention [7].

However, in our study, we did not observe any complications after surgical excision of the prolapse. Urethral prolapse in girls is a pathology with a favorable prognosis, with satisfactory aesthetic results [1].

The results of surgical treatment are clinically and aesthetically satisfactory in all patients. All girls were successfully cured, without any complications or recurrence.

5. Conclusion

Urethral prolapse is a benign pathology, but it can be complicated by strangulation, observed mainly in black girls. Its diagnosis is essentially clinical. Surgical treatment, consisting of a complete excision of the prolapsed part, ensures excellent results.

Data Availability

All data is included in the article's content.

Declaration on Human Rights

The hospital consented to the use of data from patients who were consulted in the department. This study was approved by the hospital ethics committee and the principles of the Declaration of Helsinki were followed.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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