

Urethral Prolapse: A Retrospective Analysis Of Hospitalized Cases In Port Harcourt

C. I. Akani FWACS, FICS, D. K. O. Pepple FWACS, H. A. A. Ugboma FWACS

Department of Obstetrics and Gynaecology, University of Port Harcourt
Teaching Hospital, Port Harcourt, Nigeria.

ABSTRACT

Background: Urethral prolapse is a disease of the prepubertal girls and postmenopausal women. It is rare and seen in most cases as a circular protrusion of the distal urethra through the external meatus.

Method: A retrospective study of cases managed in University of Port Harcourt Teaching Hospital (UPTH) between January 1989 and December 2000 were analysed.

Results: Nineteen (0.4%) excisions of urethral mucosal prolapse out of a total of 4351 gynaecological surgeries were carried out between January 1989 and December 2000 in UPTH. Of the 35 total paediatric gynaecological admissions, there were 17 (49%) cases of urethral prolapse. It occurred commonly between ages 4 and 7 years (63%). Common presenting complaints included vaginal bleeding, vaginal discharge and mass protruding from the urethral opening. Excision was found curative in all cases.

Conclusion: There is a place for promotion of female education and community sensitization to encourage early presentation and treatment. This will reduce infectious morbidity and its sequelae in our environment.

KEY WORDS: Urethral prolapse; Genital bleeding; Infectious morbidity

Paper accepted for publication 16th August 2005.

INTRODUCTION

The complete eversion of the terminal urethra out of the external meatus constitute urethral prolapse. In most cases it is seen as a circular protrusion of the distal urethra through the external meatus^{1,2}. It is a rarely diagnosed condition that most commonly occurs in prepubertal black girls and post menopausal white women¹⁻³. Since its first description by Solingen in 1732 its aetiology has not been clearly determined¹. Identified predisposing factors include congenital laxity of urethral tissues, excessive straining, urinary tract infection, trauma, helminthic infestation in childhood, lack of oestrogen in the extremes of life³⁻⁷. Although usually asymptomatic in the early stages¹, urethral prolapse commonly presents as painless vaginal bleeding^{7,8}. Identified lesion is a protrusion of fleshy tissue from the urethral mucosa which may be partial involving

only part of the circumference or circular if whole of it is involved^{2,4,6}. A careful history and clinical evaluation usually assists in making the diagnosis and distinguishes it from vulvo-vaginitis, foreign body, sexual assault, falls with inflammatory reaction, and such tumours as urethral caruncle, botryoid sarcoma and carcinoma of the urethra^{2-4, 8-10}. Various treatment options are available^{2,4,5}, but surgical excision and repair has been shown to increase the likelihood of permanent relief^{1,3,6,9,11-13}. Reports of urethral prolapse managed in our environment are few³. We therefore aimed to document the pattern of the clinical presentation and management offered to cases of urethral prolapse seen at the University of Port Harcourt Teaching Hospital, a tertiary hospital situated in the Rivers State of Nigeria.

MATERIALS AND METHODS

Through a detailed search, cases of urethral prolapse managed at the University of Port Harcourt Teaching Hospital between January 1989 and December 2000 were retrieved from the records of the department of Obstetrics and Gynaecology, Theatre and Gynaecological ward Registers. Information extracted from the case notes included biodata, presenting complaints, clinical examination findings, associated conditions, treatment offered and outcome; and duration of hospital stay.

RESULTS

There were 5228 gynaecological admission during the period of study, and 4351 surgical procedures were carried out in the department with 19 excision of urethral mucosal prolapse (0.4%).

Of the total 19 patients seen over this 12-year period, 63% of cases were in the age group 4-7 years. The common presenting complaints were bleeding per vaginam (58%), vaginal discharge (53%) and mass protruding from the urethral opening (42%). There were associated urinary symptoms in over 40% of cases. Late presentation was common with 63% of cases presenting 6 to 10 days after onset of symptoms.

The most common clinical examination finding included either a cherry red mass or haemorrhagic mass protruding from the urethral opening (90%) with associated mucoid discharge in 53% of cases.

Simple excision biopsy of everted mucosa with

suturing of the incision followed by a short period of urethral catheterization (12-24 hours) was found curative in all 19 cases, 6 of which were preceded by unsuccessful antibiotics and/or Sitz baths. Seventy nine percent of the cases were discharged within 48 hours after surgery; and no patient remained in hospital beyond the 6th post operative day.

Table I shows the age at presentation. Most of the patients were aged ranged from 4 to 15 years (89.4%) and 2 cases were between 46 and 50 years.

The commonest mode of presentation (Table II) was bleeding per vaginam (58%) and 74% of patients had their symptoms for 6 to 15 days prior to presentation in our hospital (Table III).

Table IV shows the findings on clinical examination. Ten had mucoid discharge at the introitus; and same number had haemorrhagic mass with contact bleeding; seven had cherry red mass protruding from the urethral opening without contact bleeding and two had only fleshy protrusion from the urethral opening. About 48% of cases had other associated conditions (Table V) and these included 4 cases of urinary tract infection, 3 of genital sepsis and 2 with foreign body (button, chewing stick). Table VI shows the outcome of the mode of treatment. Six of the patients initially had antibiotics and 4 of them included Sitz baths, all without satisfactory response. Excising the prolapsed mucosa and oversewing of the edges provided the most definitive therapy, all were discharged within 6 days and there was no case of recurrence reported in the seven, 7 year-old girls and 2 of the elderly perimenopausal women that reported at 6th week gynaecological follow-up.

Table I. Age at Presentation

Age	No.	%
0 - 3 years	0	-
4 - 7 years	12	63%
8 - 11 years	4	21%
12 - 15 years	1	5.3%
16 - 45 years	0	-
46 - 50 years	2	10.5%
Total	19	100%

Table II. Mode of Presentation

Mode	No.	%
Bleeding per vaginam	11	58%
Vaginal discharge	10	53%
Mass protruding from the urethral opening	8	42%
Pain at micturition (Dysuria)	4	21%
Frequency of micturition	3	16%

Retention of urine	1	5.3%
Fever	1	5.3%
Uniformly blood stained urine (Haematuria)	1	5.3%

Table III. Duration of Symptoms before Presentation

Duration	No.	%
1 - 5 days	5	26%
6 - 10 days	12	63%
11 - 15 days	2	11%
Total	19	100%

Table IV. Clinical Findings

Clinical Findings	No.	%
Mucoid discharge at the introitus	10	53%
Haemorrhagic mass with contact bleeding	10	53%
Cherry red mass protruding from the urethral opening; no contact bleeding	7	37%
Fleshy protrusion from urethral opening only	2	10.5%

Table V. Associated Conditions (Identified)

Associated Conditions	No.	%
Urinary tract infection	4	21%
Genital Sepsis	3	16%
Foreign body (button, chewing stick)	2	10.5%

Table VI. Outcome of Treatment

Treatment	No.	Outcome	Complication
Antibiotics only	2	No response	Nil
Antibiotics + Sitz baths	4	No response	Nil
Excision of Urethral Prolapse	19	No recurrence	Nil

Table VII. Convalescence Period

Length of Hospitalization (Days)	No.	%
1	7	37%
2	8	42%
5	4	21%

DISCUSSION

That only 0.36% of gynaecological admission cases due to urethral prolapse were seen is in keeping with the general observation that the condition is not common^{1-3,10}. There are an average of 1.5 cases per year at the UPTH. The results of this study show that urethral prolapse is the commonest indication for paediatric gynaecological admission in our hospital, and constitutes a significant proportion of the aetiology of vaginal bleeding in children. This confirms the observation in other studies^{2,8,10}.

The age distribution of our cases shows 85% aged between 4-11 years with none during the reproductive years and about 11% in the perimenopausal period. This agrees with most other observations^{1,3-8,10}, as is the finding that most common modes of presentation were painless vaginal bleeding (58%), and a mass protruding from the urethral opening (42%). There was a high incidence of mucoid vaginal discharge in 53% and urinary symptoms in over 42% of cases, which when viewed against the background that 74% of the patients had their symptoms for almost a week before presentation, raises the possibility that late presentation have a causal role in infectious morbidity in these cases. Delay in seeking for orthodox medical care and easy recourse for herbal or religious remedies which eventually compound the problems of transportation and financial hardship is common among a largely deprived population.

Making the diagnosis of urethral prolapse was relatively easy in our patients by verification of a central opening within the prolapsed tissue which was the urethral meatus identified at catheterization. Absence of urethral meatus at the centre of the prolapsed mucosa precludes the diagnosis of urethral prolapse, and may suggest a urethral caruncle with a narrowed polypoid attachment to the posterior margin of the urethral meatus; or a urethral carcinoma which is found to be hard when palpated against the pubic symphysis. Other diagnoses include urethral leiomyoma, ectopic ureterocele, condylomata, sarcoma botryoides or endodermal sinus tumours.

Detailed history and careful physical examination under anaesthesia may be required to establish the correct diagnosis.

Although strangulated urethral prolapse appears to be more common in the adult population^{1,14}, we did not find any in our 2 adult cases, who rather had features of dysuria, urinary frequency and haematuria, as is commonly reported^{4,6,11}.

Treatment modalities for urethral prolapse include conservative Sitz baths, antibiotics if infection is present, and topical oestrogen creams, or oral conjugated oestrogen especially for adult women, cauterization, fulguration/cryosurgery¹⁵ and surgical excision.

Failure of medical therapy is common especially in our environment when late presentation is the norm, cost of drugs high, and conservative therapy contra-indicated in the presence of significant thrombosis, necrosis or bleeding of the prolapsed

urethra.

Resultant fibrosis leading to obstruction is a limitation to the option of cauterization, fulguration and cryosurgery for this condition, and they are neither cheap nor easily available. Surgical excision as carried out in our series was found effective in all cases. Other reports also suggest that surgical excision of the prolapsed mucosa provides the most definitive therapy, shortest convalescence and lowest incidence of recurrence^{1-3,9,12,14,16}.

CONCLUSION

Urethral prolapse is an uncommon disorder, of unknown aetiology in women; it is frequently found in premenarcheal girls and postmenopausal women. It is the most frequent cause of gynaecological admission in children in our practice. Late presentation is the norm and infectious morbidity is high, thus medical and conservative therapy is not effective and surgical excision is simple and associated with short convalescence. Reduction in infectious morbidity can be feasible with promotion of female education and community sensitization.

REFERENCES

1. Choe JM. Urethral prolapse emedicine. August 25 2002. Available at <http://www.Emedicine.com/MED/topic2877.htm>.
2. Fishman A, Paldi E. Vaginal Bleeding in Premenarcheal girls: A review. *Obst Gynaecol Surv* 1992; 46(7): 457-60.
3. Oye Adeniran BA, Soyinka O, Odum CU, Nnatu SN. Urethral Prolapse in the Lagos University Teaching Hospital (LUTH) Lagos, Nigeria. *Nig Qt J Hosp Med* 1997; 7(3): 240-242.
4. Cardoso L Urethral Lesions. In: Edmonds D K [Ed]. *Dewhurst's textbook of Obstetrics and Gynaecology for post graduates*, 6th edition. London: Blackwell Science, 1999; 496.
5. Stewart DB Lesions of the Urethra. In: Lawson JB, Stewart DB (Eds). *Obstetrics and Gynaecology in the tropics and developing countries*, 5th Edition. London: Edward Arnold Ltd., 1967; 529-31.
6. Tindal VR. Tumours of the vulva. In: Jelfcoate B (Ed). *Jelfcoates' principles of Gynaecology*, 5th Edition. London: Butterworths, 1987; 384-5.
7. Desai SR, Cohen RC. Urethral prolapse in a premenarchal girl: case report and literature review. *Aust NZ J Surg* 1997; 67(9): 660-2.
8. Hill N C W, Openheimer L W, Morton K E. The aetiology of Vaginal Bleeding in Children. A 20-year Review. *Br J Obstet Gynaecol* 1989, 96(7): 820-1.
9. Rudin J E, Geldt VG, Alesceev EB. Prolapse of Urethral mucosa in white female children: experience with 58 cases. *J Pediatr Surg* 1997; 32(3): 423-5.
10. Anveden Hertzberg L, Ganderer MWL, Elder JS. Urethral Prolapse: an often misdiagnosed cause of urogenital bleeding in girls. *Pediatr Emerg Care* 1995; 14(3): 212-4.
11. Mattingly RF. Surgical conditions of the vagina and urethra. In: Mattingly RF (Ed). *Telindes Operative Gynaecology*. 5th Ed. Philadelphia: JB Lippincott Company, 1977; 453-84.

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12. Smith GH, Duckett JW. Urethral lesions in infants and children. In: Gillenwater JY, Grayhack JT, Howards SS, Duckett JW (eds). Adult and Pediatric Urology. 3rd ed. London: Mosby Year Book, 1996; 2431-43.
13. Angel CA. Urethral Anomalies and urethral prolapse. emedicine journal, May 28 2002, Volume 3, Number 5 Available at [http:// author. Emedicine. Com/ped/topic 233354. Htm](http://author.Emedicine.Com/ped/topic233354.Htm).
14. Poirier MP. Urethral Prolapse. EMBBS Home page. August 25, 2002 Available at [http://www. Embbs. Com/aem/ureth- d. Html](http://www.Embbs.Com/aem/ureth-d.Html).
15. Wright M. Urethral prolapse in children-alternative management. S Afr Med J 1987; 72:551-2.