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Urethral Prolapse in a Five-year-old Girl

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Summary

Ekure EN, Okoromah CN, Afolabi BB, Okechukwu SE. Urethral Prolapse in a Five-year-old Girl. *Nigerian Journal of Paediatrics* **2004; 31:29** Urethral prolapse is a rare cause of vaginal bleeding in prepubertal females and occurs most commonly in black people. It is characterized by a sliding outward of the urethral mucosa around the entire urethral meatus. Because it can present with vaginal bleeding in a child, it can be mistaken for sexual abuse. We report a five-year-old girl with urethral prolapse that was mistaken for complications of sexual abuse. She was treated by complete excision of the urethral prolapse with satisfactory result.

Key Words: Urethral prolapse, Vaginal bleeding, Female, Prepubertal.

Introduction

URETHRAL prolapse, first described by Solingen in 1732, is a benign extrusion of the terminal urethra and a rare cause of vaginal bleeding in female children in their prepubertal ages.[1] Children whose ages range from six weeks to 14 years are usually affected.[2-4] Although it has previously been reported to occur primarily in black girls,[6] there have been some reports involving Hispanics and white girls.[7-9] The reddish prolapsed urethral mucosal tissue that protrudes between the labia minora bleeds easily and often overlies the vaginal orifice, simulating oedematous traumatized, redundant hymenal folds. This can be mistaken for traumatized tissues resulting from sexual abuse. The exact cause of urethral prolapse is unknown.[1,10] It has been reported to be the result of poor development of, or atrophic changes in the collagen and elastic tissues of the urethral submucosa.[11] Lowe *et al,* in a post mortem study of a four-year-old female burns victim with urethral prolapse at the time of death, proposed that urethral prolapse results from poor attachment between the smooth muscle layers of the urethra occurring in association with episodic increases in intra-abdominal pressure.[12] The pre-menarchial and postmenopausal age distribution has implicated oestrogen deficiency as an aetiological factor. On physical examination, urethral prolapse appears as a doughnut-shaped mass protruding from the vaginal orifice. Verifying that a central opening is present within the prolapsed tissue and that this opening is the urethral meatus aids diagnosis. Observation during voiding or successful catheterization of the central opening is diagnostic in children.[1,10]

We report a case of urethral prolapse in a five-year old girl, the essence of which is to create awareness especially among paediatricians. Also highlighted are features that would aid diagnosis.

Case Report

Miss TA, a five-year old Nigerian girl was brought by a distraught mother to the children's emergency room of the Lagos University Teaching Hospital (LUTH) with complaints of vaginal bleeding, painful micturition and perineal itching of four days' duration. On giving the patient an evening bath, the domestic maid had observed bloodstains on the patient's pants and alerted the mother. A history of trauma to the vagina with biro-pen cover two days prior to the onset of symptoms was obtained but the patient denied sexual abuse. The mother who was not convinced, interrogated the child and even applied corporal punishment; despite these measures, the patient maintained that she had not been sexually abused. Further interviews in the hospital produced the same

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consistent response from the patient. There was no history of associated vaginal discharge, urinary frequency, fever or bleeding from any other site and no history of previous episodes.

The patient was the first in a family of three children; the siblings were a three-year-old girl and a five-month old boy. The mother, who was a 32-year old university graduate and housewife, was legally married and living with the father who was of the same age and an engineer. The family lived in a twin three-bedroom flat with a female teenager as domestic assistant.

Examination revealed an intelligent and very articulate girl with minimal vaginal bleeding. At the vulva was a non-tender tomato-red coloured mass measuring about 2 x 2 cm. (Fig. 1). A provisional diagnosis of ureterocele was made by the paediatric team with differentials of urethral prolapse and sexual abuse. The diagnosis of urethral prolapse was later confirmed by the gynaecologist.

Results of full blood count, urine, vaginal and urethral swabs' microscopy and culture, were normal. The patient was placed on oral cefuroxime 125mg twice daily, for one week and the prolapse was excised surgically. A urethral catheter was left in-situ for 48hours post operatively, and the patient was discharged three days post-op on oral antibiotics, to be followed-up in the clinic. The mother received appropriate counseling.

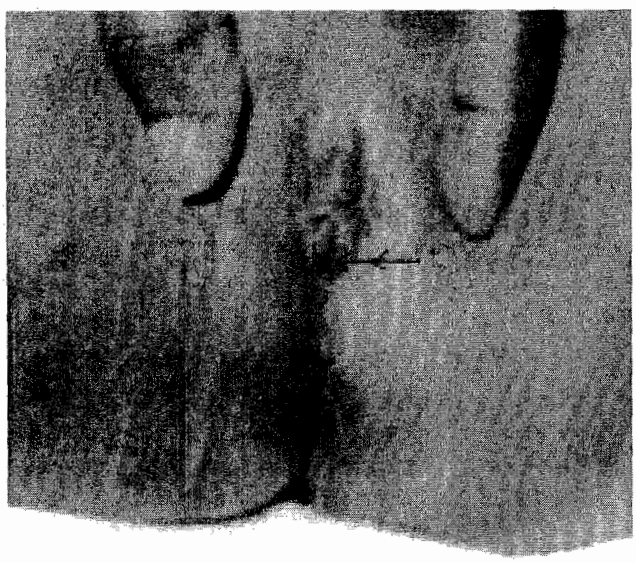

Fig. 1 A vulva with a non-tender tomato-red coloured mass measuring about 2 x 2 cm.

Discussion

Urethral prolapse has been described as an uncommon or rare disorder in young female children.[1-5] Capraro however considered it not rare, but unrecognized in many instances.[13] Mitre *et al* reported an incidence of 1/3000 children.[14] In Nigeria, Ola *et al* reported 19 cases in children over a 10-year period indicating an incidence of two cases/year.[15] However, a nine-year review from Ivory Coast showed a higher incidence of seven cases/year.[2] This entity is predominantly seen in black girls.[1,16] Trotman and Brewster have suggested that urethral prolapse is a disease of the low socio-economic group because 97 percent of the 42 patients in their reported series belonged to social classes III to V;[3] it was however, not stated in the report what the social class distribution of the patients who attended their hospital was. Therefore, the social class observed here might just be a reflection of the social class of the patients who generally attend such hospitals.

Symptoms of urethral prolapse vary, but the commonest features are vaginal bleeding causing spotting on the underwear or diapers and a periurethral mass. Dysuria or perineal discomfort may also occur. Similar findings were noted in this report. These findings can readily be ascribed to sexual abuse, as was entertained in this case and for which the patient was punished by the mother. Johnson[17] in the US reported a similar case involving a five-year-old girl with a history of recurrence. She was erroneously removed from the parents' home and placed in a foster home when they reported in the emergency room due to suspicion of sexual abuse.[17] It was only after evaluation in a family development clinic and confirmation by a urologist that sexual abuse as a cause was excluded.

Treatment of urethral prolapse, which is controversial, may be conservative or surgical. Conservative management includes local hygiene with the use of sitz bath, oral/topical antibiotics and topical oestrogen cream. The regimen consists of applying oestrogen cream twice daily to the prolapsed urethra for two weeks. Antibiotic is given if infection is present. Surgical management involves total excision of the urethral prolapse. Reports of good results with medical management have resulted in its being recommended as treatment in prepubertal girls.[1,7,18] Despite good results with conservative treatment, Fernandes *et al* in a review of 23 cases in Brazil opined that the best results were obtained by complete excision of the urethral prolapse.[8] However, Da- Silva-Anoma *et al,* in a study of 65 cases reviewed over nine years, reported satisfactory and comparable results with both medical and surgical treatment.[2] Failure of medical treatment, recurrence, or the presence of strangulated urethral prolapse, mandates surgical treatment. Conservative therapy is not recommended when significant thrombosis, necrosis, or bleeding of the prolapsed urethra is present.[1]

We advocate that all medical practitioners who attend to children, especially paediatricians, should be familiar

with the normal anatomy of the genital and anal regions in children. They should also be able to recognize abnormalities such as urethral prolapse, which mimic swelling that could result from trauma to the genitalia, in order to avoid misdiagnosis and unnecessary psychological trauma to both patients and their parents.

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