

Pre-pubertal Genital Infections in Male Children

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Summary

Ogunbanjo BO and Osoba AO. Pre-pubertal Genital Infections in Male Children. *Nigerian Journal of Paediatrics* 1983; 10: 69. Sixteen pre-pubertal boys with genital infections were seen at the Special Treatment Clinic, University College Hospital, Ibadan, during a three-year period. The diagnosis included gonococcal urethritis, genital sore (due to insect bite), scrotal swelling (due to microfilaria), perianal wart, lymphogranuloma venereum and non-specific urethritis. Close non-sexual contact with infected adults may be a more important mode of transmission of some of these infections than direct contact and there is need for proper laboratory investigations to exclude other genital lesions unrelated to sexually transmitted diseases.

Introduction

SEXUALLY Transmissible Diseases (STDs) are known to be rife in many developing countries and most of the reports are on post-pubertal infections. Sogbetun, Alausa and Osoba,¹ have reported that the age distribution in Nigeria is similar to that in other parts of the world, except that pre-pubertal genital infections were commoner in many developing countries. Alausa and Osoba² have also shown that vulvovaginitis is a common condition in the tropics, *Neisseria gonorrhoeae* being the commonest cause. Many tropical diseases have genital manifestations and children with

genital lesions are frequently seen in the clinics for STDs either referred by physicians or brought directly by alarmed parents. Exclusion of STDs by simple laboratory investigations is necessary for proper management of these cases.

The present communication describes the pattern of pre-pubertal genital infections among boys and some of the epidemiological factors involved in these infections.

Materials and Methods

The study population comprised 16 of the 43 consecutive boys under 15 years of age, who were either referred by other physicians or brought to the Special Treatment Clinic (STC), University College Hospital (UCH), Ibadan, between July 1977 and December 1980 because of genitourinary symptoms. A detailed history was taken from the patients and/or the parents or guardians. Enquiries

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were made about previous sexual experience, sexual assault, swimming habits, where and with whom the boys slept and the toilet facilities at home and school.

The boys were examined physically and their nutritional state and standard of personal hygiene were noted. The external genitalia was examined for the presence of discharge, ulcers, swellings, bleeding sites and evidence of any assault, such as bruises and lacerations.

In all the patients, a urethral swab (calgsi-wab) was examined microscopically by Gram-stain for gonococci and then plated on Thayer Martin medium. Isolates were confirmed as gonococci by means of the oxidase test and sugar fermentation reactions. A wet preparation of the urethral exudate was examined to exclude the presence of *Trichomonas vaginalis*, *Candida albicans* and schistosoma ova. The urine was also examined by microscopy and culture for pus cells, red blood cells, ova and bacteria. Blood was obtained from each patient for the Venereal Diseases Research Laboratory Test (VDRL) and the Treponema Pallidum Haemagglutination Test (TPHA). Where appropriate, skin snip was examined for microfilaria by microscopy, while full blood count was undertaken when indicated.

Contact Tracing

Family contacts of each child with gonorrhoea were asked to attend the clinic for examination, investigation and treatment where necessary. The health sister in charge of the clinic was responsible for ensuring such attendance. The health sister also gave health education talks to parents, particularly on the mode of transmission and control of these genital infections.

Results

During the three-year period, a total of 3,260 new patients were seen at the STC; these consisted of 2,000 male and 1,260 female patients. The number of patients, 15 years of age and below, was 158. The number of male patients, 15 years and below, was 43 and of these, 16 patients had genital infections. The types of genital lesions and age distribution in the affected boys are shown in Table I, while the presenting symptoms are shown in Table II.

TABLE I

Types of Genital Lesions and Age Distribution in 16 Boys

Genital Lesion	No. of Cases	% of Total	Age (Years)				
			1-3	4-6	7-9	10-12	13-15
Gonococcal urethritis	9	56.0	3			4	2
Penile sore	2	13.0	1			1	
Scrotal swelling	2	13.0			1		1
Wart	1	6.0	1				
Lymphogranuloma venerum	1	6.0					1
Non-specific urethritis	1	6.0				1	
Total	16	100	5	0	1	6	4

TABLE II
Presenting Symptoms in 16 Boys with Genital Lesions

Feature	No of Cases
Urethral discharge	9
Dysuria	10
Penile sore	1
Penile/scrotal swelling	2
Penile rash	1
Perianal swelling	1

Nine (56%) of the 16 boys had acute gonococcal urethritis with one of them having a combined urinary schistosomiasis and gonococcal urethritis. Only two of these boys admitted to previous sexual exposure. There was no evidence of assault or child abuse and all the various contacts examined were negative for gonococci by both microscopy and culture.

Two boys had penile sores. Dark ground microscopy was negative for treponemes and the syphilis serology was negative. One of them gave a history of insect bite on the penis resulting in penile abscess and ulceration. Both denied any previous sexual contact. Perianal wart was found in an 18-month old boy. The contacts had no evidence of the infection and had negative syphilis serology.

A boy aged 14 years, had what clinically looked like lymphogranuloma venereum even though both the Frei test and lymphogranuloma venereum complement fixation test were negative. However, he gave a history of previous exposure to a prostitute who could not be traced; the boy responded well to tetracycline therapy.

There was a case of non-specific urethritis in a boy aged 12 years, with a history of previous sexual exposure. Although his

contact could not be traced, he did well on tetracycline medication for two weeks.

Discussion

Nine (56%) of the 16 boys with genital infection in our study had gonococcal urethritis. There are only a few reports of such prepubertal gonococcal urethritis in boys,^{1 2 3} while cases of gonococcal vulvovaginitis are well documented in the literature,^{1 2 4} even in the tropics. It is well known that most gonococcal infections occur during the ages of highest sexual activity, i.e. 15 to 24 years and are hardly seen in children under 10 years old. However, the mode of transmission of gonorrhoea to the prepubertal youngster remains controversial. In the tropics, certain factors have been suggested; the fact that gonococci had been known to survive outside the body in the tropics with high relative humidity (up to 90% during the rainy season) and thus allowing clothes and other fomites contaminated with gonococci to remain infective for at least, 3-4 hours has been demonstrated experimentally⁵ and epidemiologically.⁶ This is important in Nigeria as it is in other developing countries where most urban family units consist of the husband, one or more wives, several children, housemaids and other relatives who live in crowded one-room or two-room dwellings in slum areas and where the practice of children and adults sharing the same bed clothing and towels is still very common. Two boys, both aged 15 years, of the eight boys found in our study to have gonococcal urethritis admitted to previous sexual exposure while the others denied voluntary or involuntary sexual exposure. Despite careful investigation of family members and immediate contacts, their source and mode of infection could not be identified. Even more puzzling is the finding of gonococcal infection in three boys under 5 years of age, while no gonococci could be recovered from

immediate contacts and parents. We have also found no evidence of sexual assault or child abuse in our study group, contrary to the experience of some workers.¹ Mutual masturbation is a possible factor which may have contributed to the transmission of the infection from older children to the younger ones although this is only a speculative hypothesis, since we did not have any of the boys in the study admitting to this practice.

Genital wart, lymphogranuloma venereum and non-specific urethritis are rare diseases in prepubertal children with no previous sexual exposure. We were unable to identify the source of the infections in these boys. However, the occurrence of these diseases in prepubertal boys points to the fact that many of these sexually transmitted diseases may not be exclusive preserve of adults and that genital contact may not be the only method of transmission of these infections. It is probable that sitting on the laps of adults, bathing of young boys by infected adults, or cuddling of the boys by older infected adults may be the mode of transmission of some of these infections.

Finally, we would like to call the attention of physicians in tropical areas to the possibility of the excursion of some tropical diseases such as schistosomiasis, filariasis and dracunculiasis to the genital area and the need for their differentiation from the sexually transmitted diseases. The need for a high index of suspicion of sexually transmitted diseases in genital regions in children, by both physicians and parents, cannot be over-emphasized.

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