Paediatric gonorrhoea: non-venereal epidemic in a household

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SUMMARY Household epidemics of gonorrhoea are relatively rare in the United Kingdom. We report a cluster of cases of gonococcal infection in four children living in one household. The cases show the importance of full screening, including pharyngeal cultures, of all family members when paediatric gonorrhoea is diagnosed. Our cases also suggest that both boys and girls should be screened for gonorrhoea when gonococcal infection is found in an adult member of the household.

Introduction
We report a cluster of cases of gonococcal infection in four children living in one household. The cases show the importance of full screening, including pharyngeal cultures, of all family members when paediatric gonorrhoea is diagnosed.

Case reports

CASE 1
A 7 year old girl was admitted to St Thomas’s Hospital for investigation of a vaginal discharge of 24 hours’ duration. The discharge had started two days after the child had spent a weekend away from home with an 18 year old woman who was a family friend. No history of the introduction of a foreign body or sexual abuse could be elicited, but the child admitted to sharing flannels and towels during her weekend visit.

Examination showed vulvovaginal erythema and a copious yellow discharge, which on Gram staining contained numerous polymorphonuclear leucocytes and Gram negative intracellular diplococci. Neisseria gonorrhoeae was isolated on culture, and treatment with co-trimoxazole (the patient was allergic to penicillin) resulted in rapid cure. Contact tracing led to the discovery of three other children with gonorrhoea in the same household.

CASE 2
An 8 year old girl, a family friend and household contact of case 1, developed symptoms and signs of vulvovaginitis 48 hours after case 1. Culture of the vaginal secretions were positive for N gonorrhoeae and, though treatment with penicillin initially resulted in negative cultures from the vulvovaginal area, urethra, rectum, and throat, follow up investigations nine days after treatment showed asymptomatic pharyngeal gonorrhoea. Subsequent treatment with co-trimoxazole eradicated the organism.

CASE 3
The 4 year old brother of case 2 was admitted to another hospital with gonococcal ophthalmia three days after case 1 had been admitted to St Thomas’s.

CASE 4
An asymptomatic 6 year old brother of cases 2 and 3 was known to have sucked their communal flannel, and routine screening of his urethra and throat showed pharyngeal gonococcal infection.

OTHER MEMBERS OF THE HOUSEHOLD
Two other children, boys aged 9 and 11 (half brothers of case 1), were screened for urethral and pharyngeal gonorrhoea but gave negative results. The three adult members of the household, the parents of case 1 and the father of cases 2, 3, and 4, were also screened and
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Jastremski, who raved prepubertal sexual abuse and concluded that the throat is commonly infected in cases of paediatric gonorrhoea. Our findings agree with those of Ingram et al., who found asymptomatic pharyngeal gonococcal infection in three (19%) of 16 girls (aged 1-12 years) who had coexistent gonococcal vulvovaginitis. Pharyngeal cultures should be performed routinely on prepubescent household contacts of patients with gonorrhoea, particularly where living conditions are crowded and toilet requisites shared.

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References