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Transfer of gonococcal pharyngitis by kissing?

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Recent reports suggest an increasing incidence of pharyngeal gonococcal infection The incidence varies according to the country of origin but appears to be related to the frequency of oro-genital contact (Table I)

TABLE I *Incidence of pharyngeal gonorrhoea, by sex*

Country	*Sex*	
	Male	*Female*
Denmark Brø-Jorgensen and Jensen, 1971	6:95[a] 6·3 per cent.	6:66[a] 9 per cent.
Norway Ödegaard and Gundersen, 1973	49:990[a] 5 per cent.	51:450[a] 11·3 per cent.
U.S.A. Wiesner and others, 1973	17:360[b] 4·7 per cent.	32:538[b] 6 per cent.

[a]Total with gonorrhoea
[b]Total VD clinic patients

The relationship to fellatio is shown in a report by Wiesner, Tronca, Bonin, Petersen, and Holmes (1973) from the U.S.A. in which the incidence in homosexual males was fourteen out of 143 (9·8 per cent.) compared with three out of 217 (1·4 per cent.) in heterosexual males. Also from the U.S.A., Owen and Hill (1972) reported finding pharyngeal gonorrhoea in eleven out of 79 (13·9 per cent.) homosexuals.

The higher incidence in homosexual males and in women suggests that fellatio is more likely to transfer the organism than is cunnilingus. Brø-Jorgensen and Jensen (1971) could find no evidence of transfer by kissing in their cases, but suggested it as a possibility. Wiesner and others (1973) could find no pairs who had simultaneous pharyngeal infection as the only manifestation. This is a report of such an occurrence.

Methods

Urethral, cervical, and pharyngeal swabs were plated directly onto Oxoid selective medium. Positive cultures were confirmed by sugar fermentation. Positive cultures from the pharynx were also shown to give no growth at room temperature and on nutrient agar.

Case reports

Case 1, a West Indian male aged 20 years, presented on May 21, 1973, with acute gonococcal urethritis. He named a female consort (73F649, who was found to have positive urethral and cervical smears). He was treated with a single oral dose of 2 g. ampicillin and 1 g. probenecid, but then defaulted.

He presented again 2 months later, on July 19, with acute gonococcal urethritis confirmed on culture. He now named the consort 73F881 (Case 2 below) with whom he admitted a regular sexual relationship since before his initial infection. Treatment with 2 g. ampicillin and 1 g. probenecid was again given. He returned after 1 week (July 26) when urethral tests were negative; at this time a pharyngeal culture was taken which proved positive for *N. gonorrhoeae*. On his return 2 weeks later (August 9) he had pharyngitis with a pyrexia of 99·4°F. Once again he was treated with 2 g. ampicillin and 1 g. probenecid by mouth, and 1 week later the pharyngitis had resolved and pharyngeal culture was negative. A repeat pharyngeal culture after 1 month (September 10) was negative, as were urethral tests.

Case 2, a Caucasian female aged 19 years, presented on July 20 as a contact of Case 1. She admitted regular coitus with him for 5 months but at first denied oro-genital contact. She had been treated by her general practitioner for 'cystitis' 2 months previously (at the time of Case 1's initial infection) with oral penicillin. Since then she had also had several courses of oral antibiotics from her G.P. for a recurrent sore throat and still complained of a slight sore throat. Urethral and cervical smears and cultures were negative for *N. gonorrhoeae*.

In view of the sore throat, a pharyngeal culture was taken which proved positive for *N. gonorrhoeae*. She returned after 4 days (July 24) when urethral and cervical smears and cultures were again negative. Treatment was given with fortified procaine penicillin 1·2 m.u. intramuscularly and 1 g. probenecid orally daily for 2 days. At this time she admitted previous oro-genital contact, but adamantly denied it since her consort had been treated on July 19. She did, however, admit kissing since his treatment,

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including 'French kissing' (kissing with open mouths and insertion of the tongue). Advice was given to avoid any sexual contact, including kissing. On her return 10 days later (August 3) she was free of symptoms and pharyngeal culture was negative. A repeat pharyngeal culture was again negative 2 weeks later (August 17).

The sequence in time of the infections is summarized in Table II.

TABLE II *Sequence of infections in Cases 1 and 2*

Date	*Case 1*		*Case 2*	
	Genital tests	*Pharyngeal culture*	*Genital tests*	*Pharyngeal culture*
May 21	G+ Treated with ampicillin and probenecid Defaulted	Not done	'Cystitis' Treated with oral penicillin Recurrent sore throats	
July 19	G+ Treated with ampicillin and probenecid	Not done		
20			Negative	G+
24			Negative Treated with fortified procaine penicillin and probenecid Advised against kissing	
26	Negative	G+		
Aug. 3			Negative	Negative
9	Negative Treated with ampicillin and probenecid	Pharyngitis		
16	Negative	Negative		
17			Not done	Negative
Sept. 10	Negative	Negative		

Discussion

The occurrence of pharyngeal infection in Case 1, after treatment for his urethral infection, with his consort having only pharyngeal infection, rules out cunnilingus as a cause.

It could be argued that his pharyngeal infection had remained since his initial infection 2 months previously (at this time his consort's 'cystitis' probably represented a genital infection) and that treatment had cured the urethral but not the pharyngeal infection. This is supported by the high failure rate of oral ampicillin in pharyngeal infections (Brø-Jorgensen and Jensen, 1971; Ödegaard and Gundersen, 1973). But as he was treated with the same regimen and this produced resolution of the pharyngeal infection with two negative cultures this would seem unlikely.

The evidence suggests kissing as the mode of transfer of the pharyngeal infection in Case 1, in particular 'French kissing'.

Case 2 indicates the need for pharyngeal cultures in female contacts who have negative urethral and cervical tests, even if they deny oro-genital contact and expecially if there is a history of sore throat.

Summary

Gonococcal pharyngitis in a male and female who were regular sexual partners is described.

The evidence suggested that the mode of transfer was by fellatio in the female and by kissing in the male.

Pharyngeal cultures are recommended in female contacts who have negative genital tests.

References

BRØ-JORGENSEN, A., and JENSEN, T. (1971) *Brit. med. J.*, **4**, 660

ÖDEGAARD, K. and GUNDERSEN, T. (1973) *Brit. J. vener. Dis.*, **49**, 350

WIESNER, P. J., TRONCA, E., BONIN, P., PEDERSEN, A. H. B., and HOLMES, K. K. (1973) *New Engl. J. Med.*, **288**, 181

OWEN, R. L., and HILL, J. L. (1972) *J. Amer. med. Ass.* **220**, 1315

Transfert d'une pharyngite gonococcique par le baiser?

SOMMAIRE

On décrit deux cas de pharyngite gonococcique chez un homme et une femme qui étaient des partenaires sexuels réguliers.

L'évidence suggère que le mode de transfert se produisit par fellation chez la femme et par baiser chez l'homme. Les cultures pharyngées sont recommandées chez les contacts féminins qui ont des tests négatifs pour les voies génitales.