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## Herpetic Pharyngitis with Mammary and Genital Herpes due to Sexual Contact

*Sir,*

Extragenital herpetic lesions can sometimes occur in patients with primary genital herpes simplex virus (HSV) infections. The route of infection is thought to be auto-inoculation or acquisition of the co-infection from a sexual partner (1). We report on a woman who developed primary HSV-1 infection of the pharynx, nipple and genitalia due to sexual contact.

### CASE REPORT

A 48-year-old Japanese woman with no history of herpes simplex visited our hospital in April 1997. Nine days before presentation, she had had sexual contact with a man other than her husband. She did not notice whether he had any herpetic lesions. Four days later, she felt chills, and on the fifth day, pain in the right inguinal area. She noticed the development of mucocutaneous lesions on the right nipple and external genitalia on the seventh day. Physical examination showed that she had crusts and erosions on the right nipple and erosions on the right labium minus pudendae. In addition, the right inguinal lymph nodes were swollen. No pharyngeal signs, symptoms, nor any swelling of the cervical lymph nodes was noticed. The patient was administered oral acyclovir 1000 mg/day for 7 days and cefpodoxime proxetil 300 mg/day for 3 days. On the sixth day of treatment, the lesions on the nipple and genitalia had almost disappeared. We attempted to isolate the virus by using the Vero cell tissue culture system. HSV was isolated in the samples taken from the nipple and genitalia, but not in a pharyngeal swab specimen. Both isolates were identified as HSV-1 by a direct immunofluorescence technique using anti-HSV-1 and 2 monoclonal antibodies (Syva MicroTrak<sup>®</sup>, Genetic Systems Co., Seattle, WA, USA) (2). A polymerase chain reaction (PCR) was then performed in order to detect HSV DNA in the same pharyngeal specimen. The specimen was treated with Gene Release<sup>®</sup> (BioVenture, USA), which was used as a template. The primer sequences are located in the regions of the HSV-1 and HSV-2 DNA polymerase genes (3). After 30 PCR cycles consisting of 1 min at 94°C, 2 min at 55°C and 3 min at 72°C, HSV DNA was detected in the pharyngeal swab specimen. Both serum HSV-specific IgG and IgM antibody titres on the fourth day after onset were less than 1:10, respectively, by the indirect immunofluorescence technique.

Serum HSV antibody was not tested for in the extramarital sexual partner or the patient's husband because they did not visit our hospital.

### DISCUSSION

Although this patient showed mild clinical features consistent with primary HSV infection, she had no previous history of

HSV infection at any site and gave sero-negative results, suggesting that it was a primary infection.

In 1992 the prevalence of serum antibody against HSV-1 in Japanese women in their forties was about 80%. Herpes simplex of the nipple is a not infrequent clinical feature of the infection. There have been two reports on this condition (4, 5). There are two published case reports on inoculation of the nipple due to infant-mother transmission. In the case we describe here the infection appears to have been caused by sexual activity. The pathogenesis in these cases seems to be that of a bite of the nipple.

Although there are various causes of pharyngitis, HSV is an important pathogen among adults. It has been reported that oropharyngeal HSV infections complicated with primary genital herpes were seen in 10–15% of all patients (6). The major clinical findings of HSV pharyngitis are erythema, exudate in the pharynx, enlarged cervical lymph nodes and fever, but asymptomatic cases have been reported (7).

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