Cutaneous herpes simplex infections

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Abstract

Objective:

To review the clinical features and natural history of cutaneous herpes simplex infections associated with genital herpes.

Design:

A retrospective case note study of all patients presenting to James Pringle House with this condition between 1983-1987.

Subjects:

123 patients were identified.

Results:

The commonest sites involved were the buttocks 64/186 (34%), suprapubic area 28/186 (15%) and thigh 14/186 (7.5%). Thirty five of the 123 (28%) patients had more than one anatomical site involved. Genital and extragenital recurrences occurred with similar frequency.

Discussion

Extragenital cutaneous herpes simplex is not uncommon. Lesions may occur virtually anywhere on the body. HSV should always be considered in the differential diagnosis of vesiculating skin lesions.

Herpes simplex virus (HSV) infection of the skin other than that around the mouth or genitals occurs either following direct inoculation or in conjunction with primary genital or orolabial herpes. Direct inoculation may occur in health care workers (usually on the hands) following exposure to infected secretions,^{1,2} in participants of contact sports,³⁻⁵ or indeed at any site when abraded skin is exposed to virus.

Corey *et al*⁶ in a study of 189 patients with primary genital herpes described extragenital mucocutaneous lesions in 32 (17%). Most lesions occurred on the buttocks, thighs or fingers. Although non genital cutaneous lesions are not recognised as a complica-

tion of primary genital herpes⁷⁻⁹ there is little information about the clinical features and natural history of the condition. The aim of this study was to review the clinical features and natural history in a cohort of patients attending in a large London STD clinic.

Methods

The clinical records of all patients with non genital or oral cutaneous HSV infections presenting at the department of Genitourinary Medicine, The Middlesex Hospital between 1983-1987 were retrospectively reviewed.

Information about the age, sex, sexual orientation, site of lesion, frequency and duration of recurrences were recorded on a standardised recording schedule.

Statistical tests used included the Chi-square, the Mann Whitney U and the *t* test.

Results

One hundred and twenty three patients were identified. Forty six were men and 77 women. Twenty five of the men (54%) were heterosexual and 20 (43%) homosexual or bisexual. The sexual orientation of one man was unknown. The mean age of the men was 35.9 (SD 9.7) and of the women 32.65 (SD 6.1), *p* < 0.05.

The site of the lesions is shown in the table. Thirty five of the 123 (28%) patients had lesions on more than one anatomical site; 24 had two sites, and 11, three or more sites. Thirty four of 77 (44%) women and 24 of the 346 (52%) men had extragenital lesions associated with the first attack and nine of these 34 (26%) women and five of the 24 (21%) men had no subsequent extragenital recurrences.

Table Site of lesions comparing female and male patients

	Females n = 77	Males n = 46	p value
Face	1 (3%)	7 (20%)	< 0.008
Neck	2 (3%)	2 (4%)	ns
Breast	2 (3%)	0 (0%)	ns
Back	5 (6%)	5 (11%)	ns
Ant abdominal wall	2 (3%)	3 (7%)	ns
Suprapubic	17 (22%)	13 (28%)	ns
Buttock	38 (49%)	22 (48%)	ns
Thigh	9 (12%)	4 (9%)	ns
Lower leg	1 (1%)	5 (11%)	0.05
Foot/toe	6 (9%)	1 (2%)	ns
Arm	3 (4%)	0 (0%)	ns
Hand/finger	10 (13%)	2 (4%)	ns
Other	3 (4%)	4 (9%)	ns

Several patients had several sites involved.

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The commonest sites for lesions were the buttock 64/186 (34%) suprapubic 28/186 (15%) and the thigh 14/186 (7.5%). Suprapubic lesions were statistically significantly more common in heterosexual men (9/25, 36%) than homosexual men (1/20, 5%, $p < 0.04$). Comparing men and women, significantly more men had lesions on the face (7/46 (15%) vs 1/77, $p < 0.005$) and lower leg (5/46 (11%) vs 1/77, $p < 0.05$).

Genital and extragenital attacks occurred with similar frequency. Simultaneous (that is, genital and extragenital) attacks (2.0 SD 5.7/year) were statistically less common than either genital (4.7 SD 6.8/year, $p < 0.002$) or extragenital (5.7 SD 6.7/year, $p < 0.001$). The duration of genital (7.9 SD 5.1/days), extragenital (8.9 SD 5.5/days) and simultaneous (10.3 SD 6–8 days) lesions was similar.

Discussion

Herpetic skin lesions can occur virtually anywhere on the body in association with genital herpes. In the study the commonest sites were the buttocks, suprapubic area and thighs, a similar distribution to that reported by Corey *et al.*⁶ The differences in anatomical distribution of lesions comparing men and women and heterosexuals and homosexuals may reflect differences in sexual practices between these groups.

Several possible mechanisms have been suggested for the spread of lesions to extragenital sites.⁶ The first is by direct inoculation at the time when genital herpes is contracted. The observation that many of the lesions were either on sites close to the genitals (such as buttocks, thighs and suprapubic area) and the fingers and face would favour this view. Auto-inoculation (that is, self transfer of HSV infection from one cutaneous site to another) is another explanation. This seems less likely as one would expect to see more patients with finger or hand lesions. The third explanation is intraneuronal spread; this would explain the buttock, thigh and suprapubic lesions but not those at more distant sites. The final suggested mechanism is haematogenous spread at the time of primary infection. This is the

most unlikely explanation as one would expect to see lesions evenly distributed throughout the body.

This study has documented for the first time that non genital cutaneous HSV infections recur with a frequency similar to that of genital herpes. Some patients may have very frequent recurrences at several different cutaneous sites, and may benefit from long term suppressive acyclovir therapy.^{10–12}

The observation that lesions can occur virtually anywhere on the body suggests that HSV should always be considered in the differential diagnosis of any vesiculating skin complaint, especially if it is recurrent.

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