

## ORIGINAL CONTRIBUTIONS

### GENITAL HERPES IN MARITAL PARTNERS

Mary Jacob and Rachel Mathai

During 1983-1986, 225 patients were clinically diagnosed to have genital herpes (GH) at our clinic. Of these, 90 men and 55 women were currently married. All the spouses were screened clinically and through standardized techniques for isolation and typing of herpes simplex virus, serological testing and Papanicolaou smear. There were 90 couples in whom at least one spouse had GH and in 38 (42%) couples both partners had GH. Clinically, 49% of wives and 75% of husbands of GH patients were diagnosed to have the disease. The spouses of recurrent GH patients had a higher frequency of the disease than spouses of primary GH patients. Among spouses who were clinically asymptomatic, 40% had high serological titres suggestive of GH.

Wives generally experienced more severe symptoms, especially pain in the lesions. Majority of lesions in both the partners were vesicles and ulcers. Prodromata were more among recurrent GH patients in both the partners. The frequency of recurrences was also similar in spouses. Seventy percent of wives and 40% of husbands could not identify any precipitating factor. Intercourse, physical stress and rich food were cited as possible factors in the remaining.

All the wives had acquired the disease through their husbands who were promiscuous. Fifty percent of husbands had been infected before marriage. Given the fact that asymptomatic carriers exist, it is better to consider all marital partners of GH as infected. Repeated and long-term follow-up examination, particularly of wives of GH patients is therefore essential as an important socio-preventive aspect of this disease.

**Key words :** Genital herpes, Marital partners, Conjugal infection.

Identification and screening of contacts are essential for control of communicable diseases. Such contact tracing, screening and treatment of infected persons play a crucial role in preventing spread of sexually transmitted diseases. Genital herpetic (GH) infections in males and females have been reported for more than two centuries; however, their venereal mode of transmission has not been universally accepted.<sup>1</sup> Most of the studies on contacts of GH patients have been restricted to sexual partners, usually prostitutes.<sup>2</sup> There are hardly any published data

on infection in marital partners of GH patients. In particular, the evidence of GH in wives of patients assumes great importance as a source of neonatal herpes<sup>3</sup> and the possible relationship of such infections to cervical cancer.<sup>4</sup>

Genital herpes has become a leading sexually transmitted disease in our clinic in recent years.<sup>5</sup> During a three-year study on the clinical epidemiology of GH, the marital partners of GH patients were screened. In this paper, the disease in spouses is described.

#### Materials and Methods

All married patients and their spouses who attended the STD clinic of our hospital during

From the Department of Dermatology, Christian Medical College Hospital, Vellore-632004, India.

Address correspondence to : Dr Rachel Mathai.

1983-86 were screened and a clinical diagnosis of GH was made on the basis of history or findings of grouped papulo-vesicles, vesicles and ulcers on genitalia. Some patients were seen with first episode (primary) and others during one or more of the recurrent episodes. For each patient and spouse, the details such as age, sex, marital status and other demographic characteristics, sexual behaviour and physical examination findings were recorded in a proforma. Smears were taken from genital lesions whenever present as well as from cervixes of all women irrespective of the presence or absence of any cervical lesion. Standardized techniques were used for isolation and typing of herpes simplex virus, Papanicolaou smear and serological testing.<sup>6,7</sup>

## Results

Of the 1194 STD patients seen during the study period, 225 (19%) had GH of which 50 (22.2%) were classified primary and 175 (77.8%) recurrent. The males were 169 (24 primary and 145 recurrent) and 56 were females (26 primary and 30 recurrent). Among males, 90 were currently married, of whom two males had two wives each; of these, we could screen the wives of 77 patients. Among females, 55 were currently married and 51 of their husbands were screened.

The characteristics of the patients with and without responding spouses were compared in terms of various demographic and clinical characteristics. Except for the fact that slightly more of the non-responders were from distant places as compared to those who responded, the differences were not statistically significant. The findings based on the 90 couples may therefore be considered representative.

Among the 90 couples, 13 (14%), came together for check-up. In the remaining, the index case was the husband in 55 couples (61%) and the wife in 22 (25%).

Genital herpes among spouses by the type of GH is shown in Table I. In 38 couples out of 90 (42%), both partners had GH; of these, in 4 couples (11%) the disease was primary in both. Thirty eight (49%) wives of the 77 men GH patients and 38 (75%) husbands of the 51 women GH patients were clinically diagnosed to have the disease. Thus, 39 of the wives and 13 of the husbands of GH patients were asymptomatic.

Table I. Concordance of GH in marital partners.

Type of GH in wife	Type of GH in husband			Total
	Primary	Recurrent	Asymptomatic	
Primary	4	10	8	22
Recurrent	—	24	5	29
Asymptomatic	7	32	—	39
Total	11	66	13	90

Among wives of 11 primary and 66 recurrent GH men patients, the clinical diagnosis of the disease was made in 4 (36%) and 34 (52%) respectively; among husbands of 22 primary and 29 recurrent GH women patients, a clinical diagnosis of the disease was made in 14 (64%) and 24 (83%) respectively. Thus, the spouses of recurrent GH patients had a slightly higher frequency of the disease than spouses of primary GH patients, although the differences were statistically not significant.

The durations of marriage at the time of visit to the clinic are given in Table II. The duration of marriage in primary GH patients was significantly lower ( $P < 0.05$ ) than that of recurrent GH patients.

Multiple exposures to STD were recorded in 85.5% of husbands. Fifty percent had already acquired the disease prior to marriage. In contrast, none of the women had pre-marital or extra-marital exposures to STD and all of them acquired GH after their marriage.

**Table II.** Duration of marriage in GH patients.

Type of GH	Mean (SD) duration of marriage (Years)	
	Husbands	Wives
Primary	4.8 (4.7)	3.7 (3.7)
Recurrent	6.8 (7.1)	7.6 (8.0)
Asymptomatic	4.2 (3.9)	6.2 (5.9)

All patients had had genital lesions. However, only 67% (70% of husbands and 45% of wives) had lesions at the time of examination. Their clinical profile is depicted in table III. Ulcers were the most frequent lesions in both husbands and wives. Papules and vesicles were more common in males. Prodromata, pain in lesions, regional lymphadenopathy and constitutional symptoms were more frequent in wives as compared to husbands though the differences failed to attain statistical significance. All symptoms, except regional lymphadenopathy were more frequent among recurrent GH patients than in primary GH in both husbands and wives.

The frequency of recurrences is shown in table IV.

**Table IV.** Frequency of recurrences among GH patients.

Frequency	Husbands		Wives	
	Number	%	Number	%
More than once a month	22	32.8	12	41.4
Once in 2-3 months	30	44.8	11	37.9
Once in 4-6 months	11	16.4	2	6.9
Once in 7 months to a year or less	4	6.0	4	13.8
Total	67	100.0	29	100.0

The frequency of recurrences were similar in both the sexes being once in 3 months or more often in the majority of cases. The same pattern was seen in the 24 couples where both the partners had the recurrent disease.

Forty two percent of husbands and 66% of wives could not identify any specific precipitating factors. Of those who could, intercourse was mentioned by 26.5% of husbands and 24.5% of wives, physical stress was cited by 16.5% of husbands and 5.7% of wives, while 25.3% of husbands mentioned rich food as a precipitating factor.

**Table III.** Clinical profiles of the disease in husbands and wives.

Signs/Symptoms	Husbands			Wives		
	Primary (11)	Recurrent (66)	Total (77)	Primary (22)	Recurrent (29)	Total (51)
Papules	0.0	9.1	7.8	0.0	0.0	0.0
Vesicles	9.1	13.6	13.0	4.5	3.4	3.9
Ulcers	72.7	34.8	40.3	50.0	20.7	33.3
Vesicles and ulcers	9.1	1.5	2.6	4.5	3.4	3.9
Healed scars	0.0	7.6	6.5	4.5	3.4	3.9
Prodromata	54.5	63.6	62.3	54.5	82.8	70.6
Pain in lesion	27.3	34.8	33.8	50.0	58.6	54.9
Regional lymphadenopathy	18.2	16.7	16.9	36.4	24.1	29.4
Constitutional symptoms	0.0	15.2	13.0	18.2	24.1	21.6

Figures represent percentages

Table V. Laboratory confirmation by the type of GH in marital partner.

Test	Percentages (Number) of cases giving positive test in							
	Husbands				Wives			
	Prim. GH	Rec. GH	All GH	Asymp. GH	Prim. GH	Rec. GH	All GH	Asymp. GH
Culture	63.6 (11)	50.0 (44)	52.7 (55)	—	40.0 (20)	29.6 (27)	34.7 (47)	13.2 (38)
Papanicolaou smear	37.5 (8)	29.0 (31)	30.8 (39)	—	36.4 (22)	7.4 (27)	21.6 (49)	0.0 (38)
Culture and/or serology	66.7 (12)	52.2 (67)	54.4 (79)	30.8 (13)	54.4 (22)	58.6 (29)	56.6 (51)	41.0 (39)

The laboratory confirmation of GH in the marital partners is given in table V. Cultures were positive in 53% of husbands and 35% of wives, the proportions of positive cases being more in the primary GH patients. All but one were identified as HSV-2. Thirty one percent of husbands and 22% of wives had positive Papanicolaou smear. Of the 13 asymptomatic husbands, 4 (31%) had high serological titres indicating GH infection. Among the 39 asymptomatic wives, 5 (13.2%) were culture positive for HSV-2 and another 11 had elevated titres (29%). Based on all laboratory findings, altogether 54% of husbands and 57% of wives had GH. The clinical profiles of those with and without laboratory confirmation were similar.

### Comments

HSV infection tends to remain latent in the dorsal ganglia of the host and shedding of the virus may occur for many years after infection is acquired.<sup>2,8</sup> Thus, the period of infectiousness of genital herpes is prolonged. However, because viral shedding can occur even in the absence of clinical lesions, it is difficult to determine the infectious stages of the disease and the high risk infectious periods. In the present study, conjugal infection was clinically evident in 42%. Although 56% of the spouses

of patients were clinically asymptomatic, 40% of them had high serological titres suggestive of GH.

Our study of the disease in the spouses revealed that all the wives had acquired the disease through their husbands unlike in the West where women had acquired GH through promiscuity prior to marriage.<sup>3</sup> In our series, 50% of husbands had been infected before marriage, majority of them were promiscuous, having contracted the disease from prostitutes. Twenty four percent of the wives were seen as index cases as compared to over 60% of the husbands. It was also noted that more men had early lesions at the time of hospital visit than women. These observations reflect in part, the social norms and cultural attitudes to STD in this part of the world.<sup>5</sup>

As in other reports,<sup>9</sup> women generally experienced more severe symptoms especially pain in the lesion. Majority of the lesions in both partners were vesicles and ulcers. Prodromata were more frequent in recurrent disease in both husbands and wives as reported earlier.<sup>3</sup> The frequency of recurrences were also similar in the spouses. In some earlier studies, recurrences were reported to be more common in men,<sup>10</sup> and in other studies these were reported more

among women.<sup>11</sup> Recurrent attacks may occur at irregular intervals for months or years throughout life and usually in relation with various non-specific trigger mechanisms.<sup>1,12</sup> Seventy percent of wives and 40% of husbands could not identify any aggravating factor. Among those who did, intercourse, physical stress and rich food were cited as possible precipitating factors. No relationship was found between recurrences and menstruation in contrast to another report.<sup>13</sup>

This study indicates that infectivity increases with increasing duration of disease. Conjugal infections were significantly more in patients with recurrent disease and the number of affected spouses increased proportionate to the duration of marriage. Given the fact that asymptomatic carriers exist, it is better to consider all marital partners of GH as infected and provide necessary advice. The findings from our study emphasize the need for repeated and long-term follow-up examination, particularly of wives of GH patients, as an important socio-preventive aspect of this disease. Pregnancy in an infected mother is likely to result in intra-uterine foetal loss or neonatal herpes. The risk of carcinoma cervix in a female GH patient gives further dimension to this disease, warning against complacency in the surveillance on wives even past the sexually active age.

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