

SHORT REPORTS

Incidence Rate of Oral Lichen Planus among Indian Villagers

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Abstract. In a house-to-house survey in South India, comprising 10 000 villagers, the age-adjusted incidence rate per 1 000 person-years for oral lichen planus was found to be 2.1 for males and 2.5 for females, based upon a 10-year follow-up study. The highest incidence was in the age group 55-64 for males and 45-54 for females. The age-adjusted relative risk was higher for the 'chewing habits' group (6.2) than for the 'smoking habit' group (2.2). The combined effect of the two habits appeared to be multiplicative; the age-adjusted relative risk for the mixed habit group being 13.7.

Key words: Epidemiology, oral; Lichen planus; Mouth, diseases

In recent years the prevalence rate of oral lichen planus (OLP) in the general population has been studied in three large-scale epidemiologic house-to-house surveys. Table I summarizes the results of these studies. It is interesting to note the fairly uniform results obtained in three so different populations.

As the incidence rate of OLP has not been determined before, it was decided to utilize the baseline material obtained through a house-to-house survey of Indian villagers in the Ernakulam District (6).

MATERIAL AND METHODS

Study population

Since 1967, follow-up examinations have been carried out at regular sampling intervals in 10 287 villagers above the age of 15, in the Ernakulam District of Kerala, South India. For details of the original survey the reader is referred to Mehta et al. (4).

Examination technique

Oral lichen planus was diagnosed only when the lesions showed the presence of typical striae of Wickham. If the examining dentist was doubtful, a diagnosis of OLP was made only when the histological changes were characteristic of lichen planus. In some cases, however, when the patients refused biopsy, the diagnosis of OLP was made on clinical grounds alone. Unfortunately, it was not possible to make a whole-body study of the skin of those suffering from OLP.

RESULTS

Table II gives the age-specific incidence rates of oral lichen planus per 1 000 person-years in the 10-year follow-up study, and Table III gives the age-adjusted incidence rates related to chewing and smoking habits. There is a slightly higher incidence rate among females, but it is not statistically significant. For both sexes there is an increase in

Table I. Results from three epidemiologic surveys in general populations on oral lichen planus

Investigator	Year	Country	Size of material	Prevalence of oral lichen planus in percent		
				Males	Females	Total
Bánóczy, Radnei & Reményi (2)	1969	Hungary	16 332			0.6
Pindborg, Mehta, Daftary, Gupta & Bhonsle (6)	1972	India ≥ 15 y.	7 639	1.5	1.6	1.5
Axéll (1)	1976	Sweden ≥ 15 y.	20 333	1.6	2.2	1.9

Table II. Age-specific incidence rates per 1 000 person-years for oral lichen planus cases from the 10-year follow-up study in the Ernakulam District

Age-group	Males			Females		
	No. of person-years	No. of new lichen planus cases	Incidence per 1 000 person-years	No. of person-years	No. of new lichen planus cases	Incidence per 1 000 person-years
15-24	5 748	6	1.0	5 444	1	0.2
25-34	9 504	15	1.6	10 256	16	1.6
35-44	7 039	18	2.6	9 627	30	3.1
45-54	5 095	13	2.6	7 156	39	5.5
55-64	3 620	12	3.3	4 646	17	3.7
65 and above	3 033	9	3.0	3 516	9	2.6
Total	34 039	73	2.1	40 645	112	2.8

Table III. Age-adjusted incidence rate per 1 000 person-years for oral lichen planus in different tobacco habit groups from the 10-year follow-up study in the Ernakulam District

Habit	Males			Females		
	No. of person-years	No. of new cases	Incidence per 1 000 person-years	No. of person-years	No. of new cases	Incidence per 1 000 person-years
No habit	5 792	2	0.6	24 731	21	0.9
Smoking habit	17 352	22	1.3	248	1	4.3
Chewing habit	5 016	18	3.7	15 491	90	4.5
Mixed habit	5 879	31	8.2	175	—	—
Total	34 039	73	2.1	40 645	112	2.5

the incidence with age, culminating for males in the 55-64 age group and for females in the 45-54 age group.

There is, for both sexes, a clear correlation between the incidence rate and the tobacco habits. Table III shows that among the individuals with no such habits the incidence rate per 1 000 years is 0.6 for males and 0.9 for females. In males the chewing habits have a higher incidence than the smoking

habits. In females, smoking and chewing habits show the same incidence, though very few women smoke. Table IV shows the age-adjusted relative risks; the highest was for the mixed habit group (13.7).

DISCUSSION

It is generally agreed upon that the diagnosis of OLP is not always an easy one to make, particularly not in cases of the plaque type (5). In the present study, great care was taken not to overdiagnose OLP and calibration with one of the authors (J. J. P.) was maintained throughout the study.

As the present study is the first of its kind, no comparison can be made with other studies. Considering that, in a Swedish population, Axéll (Table I) (1) noted a higher prevalence rate than that found in our prevalence study in the Ernakulam District (6), it would be extremely interesting to obtain incidence rate figures from the Swedish sample. In this connection it should be mentioned that Axéll too

Table IV. Age-adjusted relative risk for lichen planus in different tobacco habit groups according to sex

Habit	Relative risk	
	Male	Female
No habit	1	1
Smoking habit	2.2	4.7
Chewing habit	6.2	4.9
Mixed habit	13.7	—

was calibrated to one of the authors of the present paper (J. J. P.).

For the investigators the magnitude of the OLP incidence rate was quite surprising, especially when compared with the incidence rate for leukoplakia in the same population sample. On the basis of a 7-year follow-up study, Mehta et al. (1976) (6) found an age-adjusted incidence rate per 1 000 person-years of 3.3 for males and 1.8 for females. Thus, the incidence rate is higher for oral lichen planus than for leukoplakia in females in a South Indian population. Undoubtedly, OLP is more prevalent than hitherto believed.

In the present study OLP shows an evident association with tobacco habits which appears to be greater with tobacco chewing habits than with the smoking habit. The number of female smokers is too few to make any comparison, but among males the age-adjusted relative risks are 6.2 and 2.2 respectively for the two habit groups. The effect of two habits together, however, seems to be multiplicative and not additive, as is seen from the age-adjusted relative risk in the mixed habit group (13.7). The relative risks are age-adjusted because, as seen in Table II, the incidence of OLP varies considerably in different age groups and, as reported earlier (4), tobacco habits are also age-dependent.

Further studies on oral lichen planus, including incidence rates and correlation with tobacco habits, are desirable for different population groups.

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Dermatitis Plantaris Sicca: A Retrospective Study of Children with Recurrent Dermatitis of the Feet

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Abstract. 19 patients with recurrent dermatitis of the feet were re-examined in order to review the atopic predisposition, and the duration of the disease. 14 patients (74 %) had a history of atopy, vis-à-vis 31.5 % in the control group. In 8 patients (42 %) the dermatitis persisted beyond puberty, though in a clinically considerably milder condition.

Key words: Dermatitis plantaris sicca; Recurrent dermatitis of the feet; Atopy

Children with recurrent dermatitis of the feet are often referred to a dermatologist with a suspicion of dermatophytosis—which indeed is a rather unusual condition in childhood, or with a suspicion of allergy. The etiology of the recurrent, rather frequent, uncomfortable, dry, scaly, fissured, bilateral dermatitis (Fig. 1) is neither dermatophytotic nor due to allergy, but may be a result of both congenital (atopy?) (2, 5), and physical (perspiration?, friction?) (1, 5) factors.

This present study has been performed both to further elucidate the possible atopic disposition, and to evaluate the duration of the disease.

MATERIAL AND METHODS

The patient material consisted of children examined during the period of 1970–72 in the Dermato-venereologic Out-patient Clinic at Marselisborg Hospital, Aarhus.