

LOW PREVALENCE OF THE OCCUPATIONAL DERMATOSES AMONG THE SILK WORKERS IN ASSAM

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Survey of 115 silk workers near Guwahati (Assam) for their dermatologic problems revealed important differences from the problems faced by the silk workers in Bangalore (Karnataka). Prevalence of the two major dermatoses, maceration and pitted keratolysis occurring in 51.8% and 37.5% of the workers at Bangalore, was seen in only 2.6% and 6.1% of the Assam workers. This is possibly due to the fact that at Guwahati the silk work is a cottage industry and every worker works in short spells of time rather than continuous 8-hour duty as at Bangalore.

Key words : Silk workers, Dermatologic problems.

One of us had earlier surveyed two silk factories near Bangalore (Karnataka) and noticed a high incidence of two genetic diseases namely ichthyosis and palmo-plantar keratoderma and two occupational dermatoses namely pitted keratolysis and maceration of the hands among the workers in the reeling sections of these factories.^{1,2} Maceration and pitted keratolysis were apparently caused by prolonged immersion of the hands in the trays containing warm alkaline water.

During one of the trips to Assam, it became possible to survey the silk workers of this region to compare and contrast the dermatologic problems in this group of workers. The differences were interesting and worth reporting.

Materials and Methods

This filature situated at Sulkuchi, approximately 200 km from Guwahati, is actually a cottage industry. Each family obtains its own cocoons, and boils them to reel out the thread. It is a family business where every member of the family including the children and the old participates. There are no fixed timings for

work, the children work when they are free from school, the ladies work when they have finished their household work and so on. Thus, the work goes on from early morning to late evening, and who-so-ever is free from other duties, takes up this work. The other features of the process are essentially the same as described previously.¹

Results

A total of 115 individuals, 84 females and 31 males ranging in age from 9 to 80 years were examined. Majority (80.9%) of the workers were engaged mainly in the reeling work while the remaining 19.1% workers were weavers. The dermatologic problems in these workers are shown in table I.

Comments

The incidence of ichthyosis even in this ethnic group was found to be high, although palmo-plantar keratoderma was less frequent compared to the Bangalore silk workers. This suggests that mild forms of ichthyosis are far commoner in the Indians than what is generally believed. The most remarkable observation however, was that the two common problems of the Bangalore silk workers namely maceration and pitted keratolysis of the palms, were almost non-existent. This seems to be entirely due to the interrupted hours of work in the cottage industry type of set up at Sulkuchi, compared to the

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Table I. Prevalence of the dermatologic problems among the Assamese silk workers.

Disease	Number (%age) of workers having the disease among the workers engaged in		Total
	Reeling	Weaving	
1. Ichthyosis	53 (57.0%)	6 (27.3%)	59 (51.3%)
2. Keratoderma			
Palms	25 (26.9%)	13 (59%)	38 (33%)
Soles	29 (31.2%)	12 (54.5%)	41 (35.7%)
3. Maceration	3 (3.2%)	0	3 (2.6%)
4. Pitted keratolysis	7 (7.5%)	0	7 (6.1%)
5. Pits on soles	2 (2.2%)	5 (22.7%)	7 (6.1%)
6. Fissuring of finger-tips	40 (43%)	1 (4.5%)	41 (35.7%)
7. Frictional blisters	0	1 (4.5%)	1 (0.9%)
8. Corns	1 (1.1%)	2 (9.1%)	3 (2.6%)
9. Candidial			
Paronychia	1 (1.1%)	0	1 (0.9%)
Intertrigo	2 (2.1%)	0	2 (1.7%)
10. Scabies	5 (5.4%)	6 (27.3%)	11 (9.7%)
Total number of workers	93	22	115

continuous duty type of work in the industrial set up at Bangalore. The degree of maceration depends upon the duration of immersion. The Bangalore workers were quite aware that the maceration in their hands increased as the day progressed and decreased during the night; there was no maceration in the morning. The Assamese workers did not work for more than a couple of hours at a time, so that the maceration almost never reached clinical levels. Pitted keratolysis which is believed to be caused by diphtheroids of the skin, depends a great deal on maceration; if maceration does not occur, pitted keratolysis also does not occur. The simplest solution therefore for preventing mace-

ration and pitted keratolysis in the Bangalore workers seems to be to allow them to work for only 2 hours at a stretch in the reeling section. In between, the same girls could be shifted to the cocoon-sorting, skeining or other sections involving dry work, and then brought back to the reeling section for another stretch of 2 hours.

References

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