

## PREVALENCE OF DERMATOSES IN TRIBAL POPULATION OF KALRAYAN HILL (SOUTH ARCOT DISTRICT)

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A sample survey was conducted to find out the prevalence of dermatoses among the tribal population of Kalrayan hill in South Arcot district who were recently found out from the hidden spots of the hill. The prevalence of dermatoses was 40% among the 242 screened. Scabies had a prevalence of 22.7% and was more among the tribal school children put in huts, emphasizing the need for adequate shelter and health education. The low frequency of nutritional dermatoses 3.7% is attributed to the implementation of the noon-meal scheme. Surprising low prevalence rate for leprosy (1.7%) in this highly endemic district of South Arcot needs further probing to find out some clues for protection from leprosy.

**Key words :** Tribal, Prevalence, Dermatoses, Survey.

Kalrayan Hill, in the Eastern Ghats forms the Western border for the South Arcot district. It covers an area of 600 sq km and the elevation varies from 1000 feet to 3735 feet from the MSL.

In 1976 it was found out that 32,760 (16,581 males and 16,179 females) tribes are living in 161 hamlets in the hidden spots of this hill.<sup>1,2</sup> They were all bonded labourers released recently. Since the Government of India showed interest in the development of this newly discovered area, this sample survey was planned to find out the prevalence of dermatoses.

### Materials and Methods

Thirty eight out of the 67 individuals, who attended the clinic conducted by the mobile medical team of Kalrayan hill were screened for STD and dermatoses and 29 samples of blood were collected for VDRL test. Forty four inhabitants of Vellimalai village were screened at their doors for STD and dermatoses. All of them were very reluctant to be examined and blood samples could not be drawn from them.

In the absence of previous rapport, publicity, motivation etc, the illiterate and under-developed tribes could not be examined further. Hence further survey was confined to the tribal

school children. Innadu village, which is at the top-most place of the hill had a residential elementary school which was subjected to survey. Out of the 55 on roll, 37 children were screened for STD and dermatoses and blood samples from all of them were collected for VDRL test. Students living in a high school hostel, run by Missionaries at Kariyalur 14 km away from Innadu were examined for STD and dermatoses. A total of 122 were screened and 94 blood samples were collected for VDRL test. All the collected blood samples were preserved in an ice-box and analysed at the District Public Health Laboratory at Cuddalore.

### Results

Among the 38 (16 males and 22 females) examined at Vellimalai weekly clinic run by the mobile medical team of Kalrayan hill, no case of STD or dermatosis was recorded. Out of the 29 blood samples collected 6 (3 men, 3 women) were reactive in varying dilutions.

Only 46 inhabitants of Vellimalai village were screened at their doors. The rest were out to their fields (kadu). There were 5 cases of scabies, 2 cases of ichthyosis in the school age boys. No case of leprosy was seen among them.

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**Table I.** Age and sex distribution along with VDRL reports and dermatoses of the tribal population screened at Vellimalai clinic, Vellimalai village, Innadu tribal residential elementary school and Kariyalur tribal high school hostel of Kalrayan hill.

Age group in years	Males	Females	Total
0—4	2	2	4
5—14	87	68	155
15—24	21	7	28
25—44	18	29	47
45—64	6	2	8
65 & above	-	-	-
Total screened	134 (55.4%)	108 (44.6%)	242
Number of blood samples collected	87 (54.3%)	73 (45.7%)	160 (66%)
Number of blood samples reactive for VDRL test	3	4	7 (4.4%)
<b>Dermatoses recorded</b>			
Scabies	48	7	55
Ichthyosis	11	3	14
Fungus	3	3	6
Leprosy	2	2	4
Phrynoderma	2	2	4
Perleche	2	-	2
Glossitis	-	3	3
Molluscum contagiosum	2	1	3
Wart	1	-	1
Acne vulgaris	-	1	1
Vitiligo	-	1	1
Tinea versicolor	1	-	1
Gynacomastia	1	-	1
Total :	73 (75%)	23 (25%)	96

At the tribal residential elementary school at Innadu, among the 38 (24 boys, 14 girls) examined, 21 (19 boys, 2 girls) had scabies with a prevalence rate of 55%. Ichthyosis was seen in 6 boys and one girl. Angular stomatitis

was seen in 2 boys and phrynoderma was recorded in one girl. No case of leprosy was found among them.

At Kariyalur tribal high school hostel, among the 122 (75 boys, 47 girls) 57 students had dermatoses. Seven students had more than one dermatosis. Scabies was prevalent in 29 (24 boys, 5 girls) students amounting to a prevalence rate of 23.8%. The consolidated details of the dermatoses observed are given in table I. There were 4 cases of leprosy with a prevalence rate of 1.7%. All of them were single patch cases. Two boys had well-defined hypopigmented anaesthetic macules on the back of their arms, while two girls had similar lesions on their gluteal region. None of them had nerve thickening. All of them were diagnosed as tuberculoid type of leprosy. There was no finding to suspect STD in them. Among the 94 (51 boys, 43 girls) blood samples analysed, only one sample of a girl aged 10 years was reactive in 1 : 2 dilution.

### Comments

Though this survey is not in accordance with the statistical procedures, this is an important sample survey of the tribal population unexposed to modern civilisation.

The prevalence of dermatoses was found to be 40%, which is very much lower when compared to that seen in the plains.<sup>3</sup> However, the order of frequency is like that seen in a nearby rural population.<sup>3</sup> The high prevalence (22.7%) of scabies among the tribal hostel students is definitely more than what is seen in the plains,<sup>3,4</sup> but is almost the same as reported by Ramakrishnan et al<sup>5</sup> in the Assam tea estates. The high prevalence observed by Bedi<sup>6</sup> in the refugees camp during Bangladesh war, is not comparable here for obvious reasons. Present observation emphasises the need for adequate, proper shelter and health education for the students of the tribal schools. The prevalence rate (3.7%) for nutritional dermatoses is also very much low when compared to that

(11.3%)<sup>3</sup> seen in the plains. This is attributed to the implementation of the noon-meal (nutritional) scheme.

The prevalence (1.7%) of leprosy in the tribes of Kalrayan hill which is situated in the highly endemic district of South Arcot<sup>7</sup> is surprisingly very low as compared to that seen in the plains.<sup>8</sup> The occurrence of only four single-patch cases needs further probing which may reveal some interesting conclusions for the prevention of leprosy.

### References

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