

SCABIES—ECOLOGY AND EPIDEMIOLOGY

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Summary

A study of records of new cases attending the out-patients from 1971-1975 was carried out to study the epidemiological and ecological aspect of scabies in Goa. A rise in the number of patients with scabies was noticed during these years. Predominance of male sex, and younger age group was seen. The incidence was more during rainy and winter seasons. Mode of infection was mostly from the family members or from close contacts. Extensive survey of the population in our country is suggested to learn more about the epidemiology of the disease.

Introduction

Scabies, one of the common, highly communicable diseases has plagued mankind for centuries⁴. It has shown a noticeable increase in its incidence in the recent past, all over the world. In spite of endemicity of this condition in many countries and epidemics being reported in the world time and again^{3,10} the attention of the health authorities and World Health Organisation has not yet been sufficiently drawn to this problem². Orkin^{6,7,8} in his recent articles on scabies, has highlighted the magnitude of the problem with its changing patterns, as it exists in the

world today. In view of scant information available from our country, it was thought worthwhile to study the pattern and the lacuna in the existing knowledge of today's scabies in India. Our aim should be to bridge these gaps.

A study of records of the new cases attending the outpatients department revealed the following interesting findings:— A total of 10,571 patients were clinically diagnosed to have scabies out of a total of 3,84,753 new cases seen during a period of 5 years (1971—1975). The year-wise correlation of scabies and total hospital population is shown in Table 1.

TABLE 1

Yearwise correlation of scabies and total hospital population

Year	Total hospital population	Scabies patients	Scabies per 1,000 hosp. population
1971	60,083	1,110	17
1972	68,547	1,507	22
1973	80,570	2,325	29
1974	84,186	2,975	35
1975	91,367	2,654	29
Total	384,753	10,571	27

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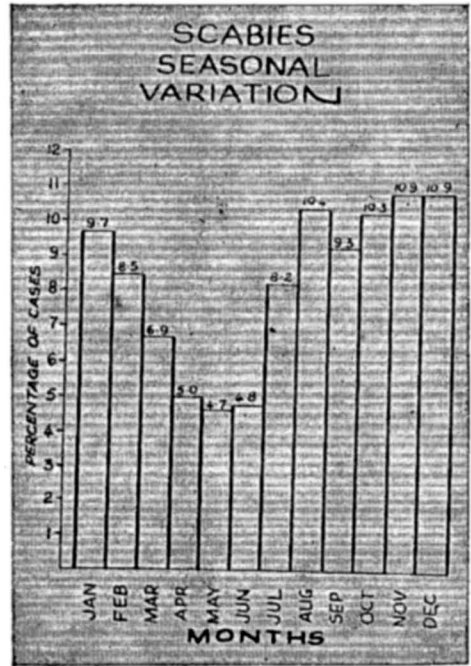
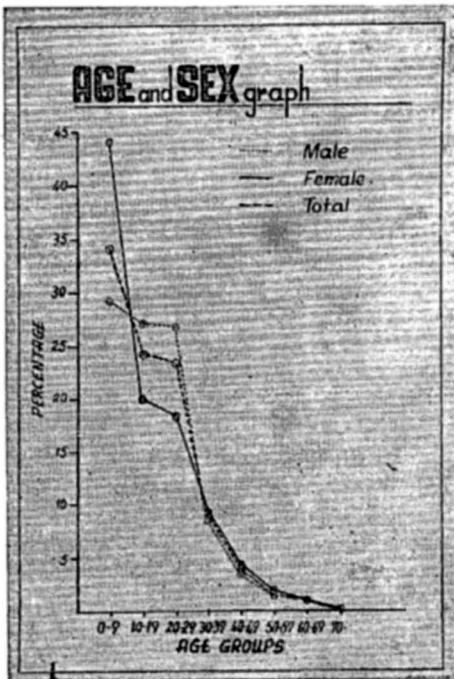
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It is obvious that there is a steady increase in the prevalence of scabies in the hospital population from 17 per thousand in 1971 to 35 per thousand in 1974, with a slight decline to 29 per thousand in 1975. This quantum of scabies though not truly representative of the incidence in general population, may provide an approximate parallel. A prevalence rate of 60 per thousand was noted in a population survey in a township in Kerala⁵, the only other report available from this country.

TABLE 2
Scabies distribution according to age and sex

Age	Male		Female		Total	
	No.	%	No.	%	No.	%
0-9	2,039	29.5	1,645	44.0	3,684	34.9
10-19	1,899	27.7	743	20.0	2,642	24.9
20-29	1,817	26.5	667	18.5	2,484	23.5
30-39	594	8.7	345	9.3	939	8.9
40-49	248	3.6	167	4.4	415	3.9
50-59	125	1.9	75	2.0	200	1.9
60-69	110	1.6	60	1.6	170	1.6
70+	28	0.4	9	0.2	37	0.4
Total	6,860	64.9	3,711	35.1	10,571	100



The susceptibility of any particular age or sex was reviewed in our patients. This showed predominance of affected males over females (Table 2). In both males and females the younger age groups were found to be more susceptible than the older. There were 6,680 males and 3,721 females, showing a male/female ratio of 1.8 : 1. The corresponding male/female ratio in the hospital population was 1.2 : 1. Statistically, the predominance of males over females was highly significant ($X^2=468.988$ P 0.001). In a report from Calcutta³ the predominance of males over females was conspicuous and is in conformity with our observations, while no such difference was noted in male/female ratio in the Kerala study⁵.

The occurrence of large number of cases in the age group of 0-9 years (34.9%), followed by 10-19 (24.9%), 20-29 (23.5%) and an abrupt fall in the occurrence in males and females in the later age groups is interesting, (graph). Similar trends have been noticed in

other studies in India ; from Kerala and Calcutta^{3, 5}.

The incidence of scabies is more during the rainy and winter seasons than during summer. Nevertheless the variation in the different seasons is not significant in Goa because of its coastal climatic conditions.

Mode of infectivity was studied earlier⁹ in 1,015 patients, 54 percent of the patients had acquired the disease from one of the family members (intrafamilial) and 8 percent had contracted the disease from neighbours, relatives or schoolmates. In the remaining 38 percent the mode of transmission could not be ascertained (Table 3).

TABLE 3
Mode of infectivity

Mode	Number of Patients	Percentage
Intrafamilial	548	54
Extrafamilial	81	8
Not known	386	38

The results of the worldwide survey conducted by Orkin⁶ is shown in table 4. The survey has shown progressive increase in scabies and in some it has reached epidemic proportions. In a few it is showing decline in the recent years.

The data available from our country on scabies is meagre. Extensive surveys of the population in different parts of the country are warranted before we can learn more about the epidemiology of this condition, keeping in view the following :—

How many of the patients belong to the so called 'clean' groups in the society? How many cases of the scabies incognito and Norwegian scabies are encountered in our day-to-day practice? Are we diagnosing nodular scabies? Do we have the problem of animal scabies in our country? Is sexual transmission playing any role in the epidemiology of scabies? What is the ecological state of *Acarus Scabies* in our country today?

TABLE 4
Survey of scabies (Orkin—1971 Modified)

	Decline	No change or slight increase	Progressive increase	Epidemics
North America	—	U. S. A. Canada	—	Mexico
South America	—	Uruguay Venezuela	Argentina Brazil	Columbia Peru
Europe	Belgium Hungary	Norway Sweden Rumania Austria Switzerland	England France Netherlands Iceland Finland East Germany Soviet Union Italy Portugal Spain West Germany	Poland
Africa	—	—	—	Morocco Rhodesia South Africa Tanzania
Asia	South Korea South Vietnam	Japan	India Israel	—
Australia	—	Australia	—	—

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¹ *Curr. Ther. Res.*, 14, 590, 1972.
² *Int. Rec. Med.*, 170, 469, 1957

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