

Scabies in paediatric age group.

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Abstract

Background: Scabies is a ignored parasitic sickness that is a most important public health trouble in many resource-poor regions. Scabies is discovered principally in poor and overcrowded stipulations but can have an effect on folks of all a while and socio-economic fame barring regard to stage of hygiene. It motives significant morbidity from secondary infections and post-infective issues such as acute post-streptococcal glomerulonephritis. **Methods:** This study used to be performed out in the department of Pediatrics, Mahatma Gandhi Memorial Hospital, Warangal. 200 sufferers have been protected in the find out about amongst these attending Pediatrics outpatient branch of this hospital, throughout the period from 1st January 2013 to 31st December 2013. **Results:** Scabies accounted for 1722 of total dermatology out patients (51266) during study period. In the present study, most of the patients belonged to the age group of 11 – 20 years i.e., 39.5%. Males constituted to the majority of patients (Male: Female::3:2). More number of patients belonged to the middle income group is 140 (70%). Nocturnal itching was present in 163 patients (81.5%). Majority of the patients were students who constituted to 57.5%. Family history of scabies was positive in 86% of patients. 191 (95.5%) had lesions over the inter digital (web) space and wrist of the hand. **Conclusion:** From this study we conclude that proper vigilance and awareness is required while observing/examining a suspected case of Scabies.

Keywords: Clinical Profile, patients, scabies.

INTRODUCTION

Scabies is an ectoparasitic contagious infectious disease caused by *Sarcoptes scabiei* and characterized by burrow, a pathognomonic lesion or more by papular vesicular eruption with intense itching specially at night. The presence of egg often produces a massive allergic response which in turn, produces more itching. Scabies is transmitted readily, often throughout an entire household, by prolonged skin-to-skin contact with an infested person (e.g. bed partner). Scabies is a condition that affects families, particularly more vulnerable, due to socio-economic factors. It also has the greatest impact on young children.[1]

Scabies is a neglected parasitic disease that is a major public health problem in many resource-poor regions. Scabies is found primarily in poor and overcrowded conditions but can affect individuals of all ages and socio-economic status without regard to level of hygiene. It causes substantial morbidity from secondary infections and post-infective complications such as acute post-streptococcal glomerulonephritis.[2]

MATERIAL AND METHODS

This study was conducted out in the department of DVL, Mahatma Gandhi Memorial Hospital, Warangal. 200 patients were included in the study among those attending DVL outpatient department of this hospital, during the period from 1st January 2013 to 31st December 2013.

Patients belonging to the age group of above 5 years and below 60 years, belonging to both sexes were selected and

included in the study group after taking consent. A detailed history was taken regarding the education, occupation, socioeconomic status, habits and the course of the disease in relation to season and treatment, previous and present illness, history of contact (in the family or in the institution where the patient worked) were obtained. In each case the complaints and its duration etc were recorded. A thorough clinical examination was done to detect any systemic illness; The whole skin was surveyed for the precise distribution and morphology of the lesions.

RESULTS

Scabies accounted for 1722 of total dermatology out patients (51266) during of period of 12 months from January – 2013 to December 2013 [Table 1]. In the present study, most of the patients belonged to the age group of 11 – 20 years i.e., 39.5%. The number of patients in age group of 21 – 30 and 6 – 10 were 21.5% and 17% respectively [Table 2]. Males constituted to the majority of patients. Male: Female ratio::3: 2 [Table 3].

In the present study more number of patients belonged to the middle income group is 140 (70%) followed by low income group 45 (22.5%) and high income group 15 (7.5%) respectively. In arbitrary classification was done by applying the following criteria. Monthly income Rs < 3000 per month – low income group, Rs up to 10,000 per month – Middle income, Above 10,000 per month – High income group) [Table 4]. In the present study nocturnal itching was present in 163 patients (81.5%) and nocturnal itching was absent in 37 patients (18.5%) [Table 5]. Out of 200 patients, majority were students who constituted to 57.5% (115 in no.) followed by housewives and agriculturists 15% (30) and 11.5% (23 in no.) respectively [Table 6].

In the present study, 149 patients were Hindus, who constituted to 74.5% and Muslims were 51 in no. constituting 25.5% [Table 7]. Family history of scabies was positive in 86% of patients [Table 8]. Out of 200 patients,

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191 (95.5%) had lesions over the inter digital (web) space and wrist of the hand. 143 (71.5%) had lesion over genitalia. Lower abdomen, forearm and Axilla constituted of 91(45.5%), 80 (40%) and 71 (35.5%) respectively. The lesions on thighs constituted of 108 in no. (54%) and on gluteal region is 25% (12.5) [Table 9].

Table 1: Incidence of scabies in Mahatma Gandhi Memorial Hospital

Months and year	Total no. of skin patients (from Jan 2013 to Dec 2013)	No. of patients with scabies	Percentage
January 2013	4164	151	3.62
February 2013	4104	165	4.02
March 2013	4471	144	3.22
April 2013	5031	138	2.74
May 2013	4509	126	2.79
June 2013	4030	147	3.64
July 2013	3871	136	3.51
August 2013	3402	110	3.23
September 2013	4313	164	3.80
October 2013	3750	150	4.01
November 2013	4789	139	2.90
December 2013	4832	152	3.14
Total	51266	1722	3.35

Table 2: Age incidence among study subjects

Age (years)	No. of patients	Percentage
6 – 10	34	17
11 – 20	79	39.5
21 – 30	43	21.5
31 – 40	29	14.5
41 – 50	8	4
51 – 60	7	3.5
Total	200	100

Table 3: Sex incidence among study subjects

Sex	No. of Patients	Percentage
Male	120	60
Female	80	40
Total	200	100

Table 4: Distribution of study subjects as per Socio Economic status

Category	No. of Patients	Percentage
Low Income Group	45	22.5
Middle Income Group	140	70
High Income Group	15	7.5
Total	200	100

Table 5: Distribution of study subjects as per Nocturnal itching

Nocturnal Itching	No. of patients	Percentage
Present	163	81.5
Absent	37	18.5
Total	200	100

Table 6: Distribution of study subjects as per Occupation

Occupation	No. of Patients	Percentage
Students	115	57.5
Agriculturists	23	11.5
House wives	30	15
Coolie	12	6
Teachers	5	2.5
Hotel Workers	5	2.5
Others	10	5
Total	200	100

Table 7: Prevalence of Scabies in patients by religion.

Religion	No. of Patients	Percentage
Hindu	149	74.5
Muslim	51	25.5
Christian	0	0
Total	200	100

Table 9: Distribution of study subjects as per location of lesions

Site	No. of patients	Percentage
Inter digital space and flexor aspect of Lower abdomen	191	95.5
Fore arm	91	45.5
Axillary folds	80	40
Genitalia	71	35.5
Thighs (medial)	143	71.5
Gluteal region	108	54
	25	12.5

DISCUSSION

The incidence of scabies was 3.35% among all the patients attending the dermatology department. Nair et al[1] in a population survey has observed an incidence of 6%. Bedi et al[2] have mentioned an incidence of 4.2% in 1970 which increased to 14.17% in 1975. Sehgal et al[3] have reported an incidence of 1.7% in 1971, 3.5 in 1972 and 2.9% in 1975. However Gulati et al[4] found the prevalence rate of 0.56% in population based study they have also reported a prevalence rate of 9.7% in 1978. Mbuagbow et al[5] have reported an incidence of 8.4%. Jackson et al[6] found an overall prevalence of scabies 9.8%. Thus the incidence of scabies varies from country to country and place to place in the same country.

In the present study more patients (39.5%) belonged to the age group of 11–20 years followed by 21 – 30 years who constituted to 21.5% of scabies. Children between 6 – 10 years constituted 17% and very few people belonged to 41

years and above. Thus scabies was found to be more common in children and young adults. Sehgal[3] found the disease to be more common in the age groups of up to 9 years, followed by the age group 10 – 19 years and 20 – 29 years. However Gulati et al[4] and Nair et al[1] found the higher incidence in children. In the study of Gulati et al[4] 36.5% of patients belonged to the age of 15 – 29 years and it was less common in school going children (18.2%). Schenon et al[7] found the disease to be more common in the age group of 5 – 15 years. Thus the observations made in the present study are in agreement with the majority of the observations.

In the present study males constituted 60% whereas female constituted 40% and thus the male to female ratio was 3:2. Nair et al[1] have observed a male preponderance. Hati et al[8] have observed an incidence of 76% in males and 23% in females. Sehgal[3] found it to be 64.9% in males and 35.1% in females. Mbugbow[5] in the study of 38 patients in Yaounde during an epidemic of scabies found male to female ratio of 2:3. The observations of the present study are in concurrence with majority of the studies.

In the present study more number of patients belonged to the middle income group (70%) followed by the low income group (22.5%). Bedi[2], Nair[1], Hati et al[8], Gulati et al [4], have observed higher prevalence of scabies in low and middle socio economic groups. The higher prevalence among the middle socioeconomic group reflects the awareness regarding the disease in this category hence they attend the hospital for treatment.

In the present study scabies was more common among students (57.5%). In the study of Gulati et al[4] more than half the patients were students which is in concurrence with the present study. The higher incidence among students is due to multiple causes like playing together in the school, living together in hostels and the habit of using the dresses and linen of the friends, which add to the transmission of the disease in them. The habit of sleeping together on common floor leading to close personal contact.

In the present study Hindus constituted about 3/4th of the patients and the rest were Muslims. However Gulati et al[4] found the disease more among Muslim community than Hindus. The higher incidence among the Hindu community in the present study would be due to the fact that the majority people residing in this area are Hindus. It may also be due to more of Hindu families exposed to scabies mite during period of our study.

In the present study, nocturnal itching was present in 81.5% of the patients. Nair BK et al[9] found nocturnal itching in 89% of the patients. Thus, it may be helpful in formation in making the diagnosis especially in the absence of facilities for demonstrating the mite. Jackson et al[6] found the itching intense enough to disturb sleep in 72% of the patients.

In the present study inter digital space and flexor aspect of wrist were involved in 95.5% of the patients followed by Genitalia and medial aspect of thighs in 71.5% and 54% respectively. The lesions, present on the, forearm, axillary folds and gluteal region constituted 80 (40%), 71 (35.5%) and 25 (12.5%) in number respectively. Lesions on the lower abdomen were present in 91 (45.5%) patients. Desai SC et al[10] have observed the involvement of hands and wrists in 84.8% of their cases. However in the present study involvement of genitalia was seen in 71.5%. Desai SC et

al[10] and Hati et al[8] observed genital involvement only in 36% and 23.8% of cases respectively. Jackson et al[6] found the lesions on the abdomen and inner part of the thighs in 83.7% and 66.3% respectively. Regarding the involvement of other sites like axillae and buttocks, the different authors have observed variable percentage of involvement in their studies.

Family history of scabies was found in 86 of patients. Usha et al[11] found that 82.5% patients gave positive family history in 40 patients who were treated with Ivermectin. And in the same study 45 patients who were treated with Permethrin 5% gave positive family history in 55.6%. Hence the results of the present study are in concurrence with the study conducted by Usha et al [11].

CONCLUSION

Scabies is a common dermatologic problem of the patients attending skin clinic. From this study we conclude that proper vigilance and awareness is required while observing/examining a suspected case of Scabies.

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