

OCCURRENCE OF SCABIES AMONG THE OUT-PATIENT CHILDREN OF DHAKA MEDICAL COLLEGE, DHAKA, BANGLADESH

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Abstract: A cross-sectional type of study was carried out among children under 12 years attending the department of skin and venereal diseases (VD) of Dhaka Medical College Hospital, with the objective of investigation about the prevalence of scabies and its complications. Out of 170 children interviewed 100 were found infected by scabies, 55 (55.55%) cases were male and 45 (44.44%) cases were female children. Factors like occupation of the parents, sharing of bed, congested living rooms and big family size were observed to be associated with higher occurrence of scabies.

Summary: A cross-sectional study was carried out among children under 12 years attending the department of skin and venereal diseases (VD) of Dhaka Medical College Hospital, with the objective of investigation about the prevalence of scabies and its complications. Out of 170 children interviewed 100 were found infected by scabies, 55 (55.55%) cases were male and 45 (44.44%) cases were female children. Factors like occupation of the parents, sharing of bed, congested living rooms and big family size were observed to be associated with higher occurrence of scabies.

Key words : OPD, Prevalence , Scabies and children.

INTRODUCTION

Scabies is an important skin disease and a public health problem from which people of the under developed countries suffer because of ignorance, illiteracy, poverty and apathy towards health problem. These factors exist in Bangladesh where scabies is a problem. Though it occurs in all races and social classes of the society (Banerjee and Chowdhury 1972) but, the people living in unsanitary and poor housing conditions suffer more from the disease. Poverty stricken people with poor hygienic habits and unclean clothing are the usual victim of the disease. They also observed that the occurrence of scabies was higher in winter. It has been shown that 30-40% of our population are suffering from skin diseases of which about 80% are scabies and pyogenic infections (Haque 2002 and Al-Amin *et al.* 1996). The disease is more prevalent among school children, in prisons, in military or institutional groups and commonly seen in school and boarding houses, orphanages, barracks, etc.

Scabies is an infestation of skin with the microscopic mite *Sarcoptes scabiei* which spreads rapidly under congested conditions where there is skin to skin contact between peoples. Scabies also spread to sexual partners and household

members (Chowdhury and Amin 1988). Orkin (1971) stated that human immunodeficiency virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) was the most common disease triggering crusted (Norwegian) scabies. Nigam *et al.* (1977) reported that scabies is a troublesome and problematic disease in Jhansi city of India.

Man is the primary host of scabies. The parasite is visible to naked eye. Three main categories of scabies are: human scabies, Norwegian scabies and animal scabies. The sites of predilection by human scabies are chiefly the finger webs, wrists, back of elbows, axillae, areola, areas around the umbilicus, palm, feet, knees, genitals and the buttocks (Orkin 1971).

The characteristics of patients which are used in demographic studies are age, sex, religion, residence, number of family members, number of persons live in each room and each bed. The socio-economic status of the patients are determined by their educational level, occupation, monthly family income, type of house, latrine, etc.

OBJECTIVES

The objective of the study was to determine the occurrence of scabies in relation to socio-demographic status among children under 12 years, attending Skin and V D of Dhaka Medical College Hospital as out-patient.

MATERIAL AND METHODS

A descriptive cross sectional study was carried out on the out-patients of the Department of Skin and Venereal Diseases, Dhaka Medical College Hospital, Dhaka. The patients were of all ages with different occupations who sought health care for skin and VD, OPD of Dhaka Medical College Hospital during the data collection period. The data were collected by personal interview of the patients and their guardians.

A total of 170 child patients was selected and the occurrence of scabies among their was diagnosed mostly on the basis of clinical features by recording in questioners incorporated with pattern of habits, status of living and economic condition, personal hygiene, etc.

RESULTS AND DISCUSSION

Out of 170 patients examined, 100 were males and 70 were females. Out of 100 male children, 55 were infected by scabies and the maximum population affected with scabies were found among the ages between four and five years. Out of 70 females, 45 (64.28%) were infected and the maximum were between the ages zero and one year old (Table 1).

Table 1. Prevalence of scabies in different age groups and sexes of children.

Age groups of the children (years)	Total no. of children examined	Male			Female		
		Total no. of patients examined	Infected patients	% of infected patients	Total no. of patients examined	Infected patients	% of infected patients
0 - 1	40	19	11	19.99	21	12	19.09
2 - 3	35	19	11	19.99	16	10	15.90
4 - 5	30	20	13	23.63	10	8	12.72
6 - 7	22	13	9	16.36	9	6	9.54
8 - 9	23	15	7	12.72	8	4	6.36
10-11	20	14	4	7.27	6	5	7.14
	170	100	55	58.82%	70	45	64.28

The cutaneous lesions were predominated at the sites of finger and finger webs, foot and foot webs, front of the wrist, male external genitalis, and front of the shoulder; finger and finger webs and foot webs were affected in majority of the cases (Table 2).

Out of 99, 50 (50.50%) respondents knew that scabies is transmitted by close contact, 16 (16.16%) for dirtiness, 14 (14.14%) through clothing, 19 (19.19%) from bedding (Table 3). Table 4 also represents the educational qualifications of the respondents. The highest number respondents were illiterate.

Table 2. Percentage of sites of lesions found in scabies patients.

Sites of involvement	Total number of scabies cases (55+44)	No. of scabies patient having lesion at the particular site	% of scabies patient having lesion at the particular site
Finger and finger webs	99	73	73.73
Foot and foot webs	99	59	59.59
Front of the wrist	99	23	23.23
Male external genitalia	99	38	38.38
Front of the shoulder	99	20	20.20

Hossain (1993) and Islam and Wadud (1990) stated that in the most poverty stricken areas of Dhaka city, there were unprecedented number of scabies cases. About 50-70% of pediatric patients had itching and in some cases with secondary infection. Kakar (1999) found that most of the children (46%) were in the age group of 1-4 years with complicated scabies. Paller (1993) found that scabies in infants and young children were manifested as a pruritic, generalized eruption with frequent involvement of the face, scalp, palms and soles in contrast to the lesions in older patients.

Table 3. Knowledge of respondents about the transmission of the disease.

Mode of transmission	No. of respondents having particular knowledge	Percentage
By close contact	50	50.50
By Dirtiness	16	16.16
By clothing	14	14.14
By bedding	19	19.19

Table 4. Percentage of scabies patients by their educational level.

Educational status of the respondents	No. of infected respondents	Percentage
Illiterate	63	63.63
Up to class III	19	19.19
Up to class V	11	11.11
Up to class VII	6	6.06

Islam and Wadud (1990) studied the disease pattern of slum area in Dhaka city and showed 9% prevalence of scabies, 4% pyogenic infection of skin, 2% nutritional deficiency and 5% other contagious diseases. They also stated that communication diseases were more than 45%.

From the studies conducted by Ahmed *et al.* (2003) in Comilla, Farha (1999) in Mymensingh Medical College, Islam and Nasirullah (1998) in Sylhet Medical College Hospital, the percentages of scabies were found remarkably higher among the skin diseases. In another study (Vibgagool 1970), the percentage of scabies among the children up to nine years of age in Thailand was found to be 35.74%. This percentage was too high in comparison to the present study. The higher percentage of scabies among the people of Thailand were probably due to free mixing and free sex practices in their life style. According to Zaman *et al.* (1993), the prevalence of scabies was only 6.7% among the people of Pakistan, this may be due to healthy religious practices and conservative life style.

The percentage of scabies among the patients admitted in a Tropical Diseases Unit in the Basurto Hospital, Thailand was 15.79% (Vibgagool 1970) which is almost consistent with the present study. According to Anand and Gupta (1998) and Paller (1993), scabies are more prevalent in young children and the similar findings were also obtained in the present study.

CONCLUSION

The present findings disclose some facts about the causes of scabies, transmission of the diseases, problem of not maintaining personal hygiene

and professional measures to prevent scabies among the children. Prevention of scabies is not very difficult if the people participate actively by treatment and training on maintenance of personal hygiene. From this study, it can be concluded that the health education and maintenance of good personal hygiene are the utmost needs of the time.

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