

Original Article

Prevalence of Scabies in Skin and VD OPD of Faridpur Medical College Hospital

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Abstract:

The burden of scabies is highest in tropical countries, but recent data from Bangladesh is scanty. This cross sectional study was carried out to find the prevalence of scabies in skin & VD Out Patient Department (OPD) of Faridpur Medical College Hospital (FMCH) during the period of April 2013 to March 2014. Total 22,399 patients attended to the skin & VD OPD, were included in this study. We identified 15,455 patients with scabies. The total prevalence was 69%. Prevalence in January was highest & was 78%. Most cases were uncomplicated but 17.28% of complicated scabies patients were found. Scabies was more in poor socio-economic group than others. The present study showed a high prevalence of scabies in patients presenting to skin & VD OPD, FMCH. Prevalence was higher overall in children. Our data show that scabies is common in patients presenting to skin & VD OPD & this finding may be used as an indicator of the general population.

Key words: Scabies, Prevalence, Skin Disease.

Introduction:

Scabies is a highly contagious disease caused by the mite *Sarcoptes scabiei var hominis*. The disease is seen in all socioeconomic groups & communities throughout the world¹. However, the prevalence of scabies varies widely from one country to other². For example, in some developing countries, the prevalence has been reported to be between 5.8% & 83% among the rural population^{3,4}. Scabies is a major public health problem in many developing countries⁵.

The burden of the disease is highest in the tropical countries, where scabies is endemic. Scabies is particularly common in poor communities with crowded living conditions⁶. Some studies have suggested higher rates in urban areas & an increased incidence during winter months⁷. Scabies is primarily transmitted by close human contact & seldom through fomites. The disease is also more common in institutional environments such as prisons, old homes, day care centres, nursing homes, schools and orphanages where outbreaks of the disease are frequently reported. Spreading of this disease usually occurs in the wars, floods, earthquakes and other natural & gregarious unfavourable events in the critical times⁸. Nowadays, in spite of advance hygiene and decreased contamination rate, the disease still has the epidemic risk, which have not been eliminated in prisons, encampment, garrisons and other general dwellings and can easily spread because of low personal and environmental hygiene⁸. A female of *S. scabiei* can survive around 30 days in the host body penetrating the stratum corneum of the skin and laying eggs in burrow⁹. Itching is commonly present and subsequent scratching leads to secondary infection. Acute glomerulonephritis caused by nephritogenic strains of streptococci is a known complication, particularly in the tropics¹⁰. Eczematization is a recognized complication of scabies.

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Materials and Methods:

This cross sectional study was conducted on patients attending skin and VD outpatient department of Faridpur Medical College Hospital, Faridpur during the period of April 2013 to March 2014. All patients attending the Dermatology outpatient department during a period of 12 months (2013 to March 2014) were included in this study. Cases of scabies were diagnosed according to conventional criteria. A presumptive diagnosis of scabies is based on symptomatic complaints of pruritus and physical examination of the involved site. Entire body of each patient was examined. Scabies was diagnosed clinically by the presence of erythematous papular, vesicular, pustular or bullous lesions associated with itching, a positive family history (i.e. at least one other family member with similar symptoms) and other pruritic skin diseases were excluded. The patients were examined clinically for the presence of lymphadenopathy and secondary infection. Secondary infection was defined as the presence of pustules, suppuration or ulcers. Patients family income monthly below taka 5,000 is considered as poor; income taka 5,000 - taka 10,000 is lower middle class; income taka 10,000 - taka 20,000 is middle class; income more than taka 20,000 is considered as high socio-economic class.

Results:

A total 22,399 patients attended to the skin and VD OPD, were included in this study. Of this total 16,996 were adult (male 9278, female 7718) and 5,403 were children. Children were defined as any subject 12 years old and younger.

Table I: Distribution of scabies patients according to socio-economic groups.

Group	Number	Poor	Lower middle class	Middle class	Upper class
Male	6,114	3927 64.23%	1508 (24.66%)	404 (6.61%)	275 (4.50%)
Female	5,433	3595 66.17%	1318 (24.26%)	391 (7.20%)	129 (2.37%)
Children	3,908	2443 62.51%	945 (24.18%)	310 (7.93%)	210 (5.38%)
Total	15,455	9965 64.48%	3771 (24.40%)	1105 (7.15%)	614 (3.97%)

We identified 15,455 patients with scabies. The total prevalence was 69.00%. Prevalence in male, female and children were 65.89%, 70.39% and 72.34% respectively (Table II).

Table II: Prevalence of Scabies

Group	Total population		Scabies patients		Prevalence
	Number	Percent	Number	Percent	
Male	9278	41.42	6114	39.56	65.89
Female	7718	34.46	5433	35.15	70.39
Children	5403	24.12	3909	25.29	72.34
Total	22399	100	15455	100	69

Prevalence in January was highest and was 78% (Figure 1).

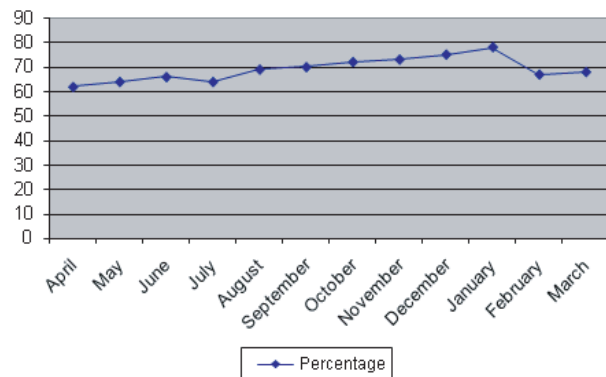


Figure I: Distribution of scabies patients in different months of the year.

Discussion:

The total prevalence in this study was 69.00%. Prevalence in male, female and children were 65.89%, 70.39% and 72.34% respectively. Prevalence in January was highest and was 78%. In addition, scabies is common in lower socioeconomic groups, attending outpatient department. In this study, scabies diagnosis was based on clinical signs and symptoms. The prevalence of scabies varies widely from one country to other² for example, in some developing countries, the prevalence has been reported to be between 5.8% and 83%^{3,4}.

Scabies is 1 of the 6 major epidermal parasitic skin disease (EPSD) that is prevalent in resource-poor populations, as reported in the Bulletin of the World Health Organization in February 2009¹¹. Prevalence rates are extremely high in aboriginal tribes in Australia, Africa, South America¹² and other developing regions of the world. In 2009 retrospective study of 30,078 children in India, scabies was found to be the second most common skin disease in all age groups of children, and the third most common skin disease in infants¹³.

Worldwide, the prevalence of scabies has been estimated at 300 million cases annually¹⁴. In the United States and in other developed regions around the world, scabies occurs in epidemics in nursing homes, hospitals, long-term care facilities, and other institutions. It is seen frequently in the homeless populations but occurs episodically in other populations as well. No recent published data are available on its incidence in the United States. A study published in 2009 conducted in Brazil identified major risk factors for scabies in an impoverished rural community. The risk factors were young age, presence of many children in the household, illiteracy, low family income, poor housing, sharing clothes, towels, and irregular use of showers¹⁵.

The limitation of hospital-based study may overestimate or underestimate true incidence of the disease. However, the increase in the prevalence of the disease may reflect the impact of the problem on the community.

Conclusion:

Our study provides a picture of the prevalence of scabies in urban Faridpur, among the different socio-economic conditions. The epidemiological characteristics of the disease should be considered in the design of disease control program. Scabies prevalence was high in the studied population, and there is possibility of outbreak and future epidemicity. Mass treatment of scabies either by oral ivermectin or topical permethrin is suggested. Contact tracing is an important approach for scabies control and prevention.

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