Awareness about Scabies among General Medical Practitioners (GPs) of Karachi, Pakistan

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Abstract

Objective: To investigate the awareness of general medical practitioners (GPs) about scabies and to evaluate the differences in awareness, if any, between general medical practitioners graduated recently (last 10 years) and more than 10 years practicing in Karachi, Pakistan.
Methods: A pre-tested questionnaire survey was conducted among 200 GPs through a cross-sectional study design and a descriptive analysis was performed.
Results: Present study showed that a substantial number of GPs have inadequate knowledge regarding causative organism of scabies. If responding correctly to 75% of questions asked, is taken as the criterion for satisfactory awareness, only 36% of GPs had a satisfactory level of awareness. There was no effect of increasing age or years of experience on the level of awareness.
Conclusion: There is a general lack of knowledge regarding various aspects of scabies among GPs. Therefore, active intervention is required to improve their awareness (JPMA 51:370,2001).

Introduction

Scabies is a skin infestation caused by the burrowing action of a female parasite, Sarcoptes scabiei (Itch mite) resulting in irritation and vesicle or pustule formation[1]. Human scabies has played a modest, but not nugatory role in the history of dermatology. Hebra, Beeson, Heilesen and Friedman have related the story of scabies in detail[2-5].
Scabies infestation is ubiquitous and age, sex or skin colour plays no part in its aetiology[6]. Scabies affects all races and social classes worldwide[7]. Accurate figures of its incidence are difficult to obtain and most reports are based on hospital outpatient attendance records[8]. The incidence of scabies in developed countries shows cyclical fluctuations for which there is, as yet, no satisfactory explanation[9]. The reported incidence of scabies for Karachi is 22.7%, which is more than other infections[10].
Medical staffs, especially General Medical Practitioners (GPs) are an integral part of any health care system. Treatment of scabies is domiciliary, so mostly patients are in contact with GPs. GPs are not only involved in the management of scabies but they are also responsible for providing health education to the patients about this disease. The patients' queries about scabies, such as mode of spread, prevention and protection of family members, are often directed at the GPs, as they are more readily available than the skin specialists.
Although national data for scabies is not available but reports based on hospital outpatient attendance records shows alarming prevalence indicating a lack of awareness about this common skin problem among GPs[11]. This study reports the pattern of awareness about scabies among GPs and the differences in the awareness in those who graduated in the last ten years and senior general practitioners of Karachi.

Methods

This study was conducted in Karachi; the main seaport and largest city of Pakistan with a population of 9,802,134[12]. Promise of better economic opportunities has lead to massive influx of people in this city from all parts of the country. GPs are defined as, any qualified health care provider, practicing allopathic medicine in private sector, except those who have dermatological experience, irrespective of sex and geographical origin and are currently working in Karachi division.

A multiple-choice type questionnaire focussing on awareness about case finding and management of scabies patients was pre-tested on 20 GPs in district West of Karachi, and was modified accordingly. To avoid any bias in the answers, the questionnaires were filled on a single day by a team of data collectors. With the help of networking sampling strategy[13], fifty GPs from each district of Karachi division except district West (Pre-testing area) were interviewed. Hence district West was not included in the actual study. A verbal informed consent was obtained from all the GPs. There was no compulsion for them to participate in the study.

Statistical analyses

Data were processed using EPI-INFO 6.04 software packag&[4] and analysis was performed using SPSS software package (SPSS 8.0 for Windows. Chicago, IL: SPSS Inc., 1996)[15].

Results

A total of 200 qualified GPs participated in the study. There were no refusals, as complete anonymity was ensured. Of 200, 198 (99%) GPs replied that they routinely came across scabies patients. All the respondents were aware, that skin is the primarily affected organ of the body in scabies. Graduation year for GP ranges from 1959 to 1999. GPs in the study sample were evenly distributed in four quartiles of age with mean (35.85 ± 7.19) years. The minimum and maximum ages of OPs were 24 and 65 years respectively (Table 1).

When correctly responding to 75% of the questions asked (Table 1), was taken as an arbitrary criterion of satisfactory awareness, only 36% (72) of GPs had satisfactory awareness. When the effect of age and length of Table 1. Demographic characteristics of GPs with satisfactory experience were studied on the level of satisfactory awareness, it was found that neither increasing age nor increasing years of experience improved the level of awareness among GPs (Table 1).

Table 1. Demographic characteristics of GPs with satisfactory awareness from a cross-sectional study about awareness of scabies at Karachi, Pakistan, December 2000 (n=200).

Variables	Number (n = 200)		Satisfactory Awareness* (n = 72)	
	No.	%	No.	%
Age in years				
<30	52	26	18	25
30-35	46	23	16	22
36-40	52	26	20	28
40 +	50	25	18	25
Sex				
Male	178	89	60	83
Female	22	11	12	17
Religion				
Islam	166	83	56	78
Hinduism	34	17	16	22
Academic qualifications				
MBBS	160	80	55	76
MD (Russia and Colombo)	12	6	7	10
MBBS + Diploma	28	14	10	14
Years of experience				
< 10	112	56	26	36
10-20	38	19	22	31
20 +	50	25	24	33
Area (District of Karachi)				
South	50	25	20	28
East	50	25	22	31
Central	50	25	16	22
Malir	50	25	14	19

*Satisfactory Awareness: correct reply up to 75% of the questions asked.

One hundred and two of 200 GPs mentioned parasite and 42 bacteria as the causative organism. As regards the most common clinical feature, 156 GPs gave nocturnal itch as the answer (Table 2).

Table 2. Characteristics of scabies revealed by GPs during a cross-sectional study about awareness of scabies at Karachi, Pakistan, December 2000 (n = 200).

Variables	Number
Cause of scabies	
Parasite	102
Bacterial	42
Fungal	38
Viral	12
Contaminated water	6
Clinical features	
Nocturnal itch	156
Inguinal/Perineal region affected	154
Other family members involved	142
Burrow	156
Axilla	112
Breast folds	82
Finger webs	44
Scabies spread from person to person	
Yes	194
No	4
Don't know	2
Mode of spread of scabies	
Direct contact	168
Sexual contact	52
Sleeping with infected person	152
Contaminated cloths	162
Blankets	106
Bed-sheets	156
Kissing	18
Objectives of infected person	98
Complication of scabies	
Yes	182
No	18
Type of complications	
Secondary infection	
Yes	150
No	32
Eczema	
Yes	44
No	138
Persistent itch	
Yes	94
No	88

As for the diagnosis of scabies, 78 (39%) GPs put-forth nocturnal itch and involvement of other family members as the answer. Seventy-nine percent GPs were aware of appropriate management of scabies.

Discussion

Very little epidemiological work has been done in dermatology, as this branch of medicine has been neglected in Pakistan due to lack of interest by medical professionals[16]. To the best of our knowledge, this is the first study of its kind among GPS of Karachi in Pakistan. So we are unable to compare the results of this study with other studies. Scabies is a condition that may involve the whole body and medical and paramedical staffs working in all disciplines of medicine are involved in its management[17].

The present study showed that substantial numbers of GPs have inadequate knowledge regarding the causative parasite for scabies, the importance of scrapping the burrow and its examination in the diagnosis and health education for patients and family members. At the same time, however, there is reasonably good awareness about practical aspects such as mode of spread of the disease, clinical features and treatment of scabies.

Most of the GPs were familiar with the correct treatment of scabies, but lacked the knowledge of its application (creams and lotions), was deficient in our study. Improper application of topical medications often occurs because the patient fails to fully understand the necessity and importance of application of topical preparations on whole body and treatment of whole family at the same time. Not only must patients be taught to take their medications, but they must also gain sufficient understanding of disease and its treatment, in order to become convinced that this is necessary. This study evinced that GPs are not clear about health education to be imparted to scabies patients. Consequently, the responsibilities of GPs have been increased manifold.

Another important observation was that neither increasing age nor increasing years of experience of GPs improved the level of satisfactory awareness among the GPs. This reflects the total lack of refresher courses or continuous medical education programmes for the GPs.

Some limitations of our study need to be acknowledged. First, the study is limited by cross-sectional design so temporal or cause-effect relationship cannot be established. Final and most important is small sample size with networking sampling strategy for selection of GPs.

We recommend in the light of study results that, better awareness about scabies among GPs is required. Trained doctors would not only help in improving case detection, but would also help in passing on the required health education to the patients. This will lead to fewer defaults and failures and improve cure rates.

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References

1.Mubasher M. Scabies. Iliyas M, eds. Community Medicine and Public Health. 4th ed. Karachi, 1997,pp.579-82.

2.Hebra F V. On diseases of the skin including the Exanthemata. The New Sydenham Society, 1868; 2:164-252.

3.Beeson BB. Acarus scabiei: Study of its history. Arch. Dermatot. Syphilol., 1927; 16: 294-307.

4.Heilesen B. Studies on Acarus scabiei and scabies. Arch. Derm. Veneral., (Suppl) 1946; 14:1-30.

5.Friedman R. The story of scabies. New York: Froben,1948.
6.Funaki B, Elpern Di. Scabies epidemiology, Kauai, Hawaii, 198-1985. Int. J. Dermatol., 1987; 26: 590-92.
7.Arlian LG, Estes SA, Vyszenski-Moher DL. Prevalence of Sarcoptes scabiei in the homes and nursing homes of scabietic patients. J. Am. Acad. Dermatol., 1988; 19: 806-11.
8.Fain A. Epidemiological problems of scabies. Int. J. Dermatol., 1978;17:20-30.
9.Orkin M, Maibach HI. The Scabies Pandemic. N. Eng. J. Med., 1978; 298:496-98.
10.Haroon TS. Pattern of skin diseases in Karachi. J. Pak. Med. Assoc., 1985;35: 73-78.
11,Shamim SM. Scabies: A common skin problem often misdiagnosed, J. Pak. Assoc. Dermatol., 2000; 11: 12-18.
12.District census report 1998. Census publication No. 617. Population census organization. Statistics division. Government of Pakistan, Islamabad, 1998.
13.Schloss PJ. Smith MA, eds. Conducting Research. 1st ed. New Jersey, 1999, p.89.
14.Epi Info: A word processing, database and statistics program for Public Health.