Pakistan J. Zool., vol. 51(2), pp 797-799, 2019. **DOI**: http://dx.doi.org/10.17582/journal.pjz/2019.51.2.SC3

Short Communication

Profile of Scabies in Males Residing in the Vicinity of Baqai Medical University, Karachi

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Article Information
Received 04 October 2017
Revised 23 March 2018
Accepted 13 June 2018
Available online 05 February 2019

Authors' Contributions
NK, AK, ZSS, MAA and WK conducted the research work and wrote the manuscript. SSS did statistical work.

Key words
Scabies, Prevalence, Men, Karachi, Pakistan.

ABSTRACT

Scabies is a highly contagious skin disease caused by an infestation by the mite *Sacoptes scabiei*. The most important symptom is severe itch. Severe itching may cause sepsis which is sometimes life threatening. Male patients visiting Baqai Medical University were grouped into five categories based on their age at the first visit. The diagnosis was based on detailed history and clinical examination which included scraping of papillae or burrow to confirm the diagnosis. To test the incidence in various age groups and body parts a chi-square (χ^2) test of association (R × C contingency test) was performed. The association of body parts and age groups was significant. Most of the patients above the age of 10 were either working in vegetable market or were rag pickers working near garbage bins. The highest infection was recorded on the knees and the lowest on groin. There is need to diagnose dermatoses at early stage by training general practitioners. Scabicides must be applied at bedtime and wash off the next morning and finally if there is a single patient the entire family must be treated.

Skin diseases in human populations are common throughout the world including rural and urban areas. Amongst cutaneous infestation scabies is most commonly seen yet often treated inappropriately. It is caused by *Sarcoptes scabiei* mite and is contagious characterized by untraceable, nocturnal pruritus with mild cutaneous lesions (Fitzpatrick and Woff, 2001). The mite can survive almost 48 to 72 h without human contact. The symptoms of scabies include rash, itching mainly at night, and thick crusts on the skin and sores with secondary bacterial infection caused by a group *A. streptococci* and *Staphylococcus aureus* (Hay *et al*., 2012). In severe cases the itch can lead to constant scratching of different body parts. With nonstop scratching an infection can develop. Nonstop scratching may even cause sepsis, which is sometimes life-threatening condition that develops when the infection enters the blood. In the present investigation scabies in different body parts of male residents of different age staying in the vicinity of Baqai Medical University, Karachi was conducted.

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0030-9923/2019/0002-0797 $ 9.00/0

Materials and methods

The study was conducted from October 2012 to March 2013 in the dermatology department of Baqai Medical University, Karachi. A total of 239 male patients were found to be suffering from scabies. These patients were grouped into five categories based on their age at the first visit. These were 0–4 years, 5–9 years, 10–14 years, 15–20 years and >20 years. Patients with more than one skin disorders were not included in the study. The diagnosis was based on detailed history and clinical examination which included scraping of papule or a burrow was done to confirm the clinical diagnosis. Sterile mineral oil was placed on a scalpel blade which was used to scrape severe lesions. The scrapings collected were placed on a glass slide under light microscope for mite eggs or fecal pellets. Mostly the history and clinical examination are adequate to make proper diagnosis. To test the incidence of scabies in various age groups and body parts, a chi-square (χ^2) test of association (RXC contingency test) was performed (Zar, 2008).

Results and discussion

The test for association between various age groups and body parts was significant (Chi-sq.=68.017, $p<0.001$).

Table I.- Scabies in males residing in the vicinity of Baqai Medical University, Karachi during October 2012 to March 2013.

♂ Age	Cases positive for scabies (n)	Knees	Underarms	Groin area	Buttocks	*Other infected localities
0-4 years	52	14	10	9	8	11
5-9 years	50	26	9	0	5	10
10-14 years	71	59	4	2	2	4
15-20 years	65	24	10	4	5	22
>20 years	1	0	1	0	0	0

*Other infected localities included feet, hand, neck, head and stomach.

Therefore, there is a strong association between age of a person and infection of body parts. The highest infection was recorded on knees and lowest on groin.

Most of the males above the age of 10 years were either working in Sabzi Mandi (vegetable market) as labourers or were rag pickers. Since scabies is highly contagious its prevalence in low-socioeconomic class in which overpopulation is prevalent along with little health care education and inadequate sanitation. Female mites usually burry deep in the stratum corneum of the epidermis at night to lay eggs thus causing nocturnal pruritus (du Vivier, 2002). Its inoculation period is usually four weeks from initial infestation (Vorou *et al*., 2007), all age groups showed presence of scabies although in patients >20 years only one patient was recorded. Patients suffering from the disease must be properly guided to use scabicide. Patients whose lesions were cured were considered to be cured. The drug used most commonly was sulphur which is the oldest anti-scabies in use and available in various preparations which are effective and safe (Kadir *et al*., 1999). The best way to eradicate this disease is that if one member suffers, the whole family must be treated, to completely eradicate the mites. Clinical trials were conducted (Castillo *et al*., 2013) to test the efficacy and safety of *Tinospora cordifolia* lotion and permethrin lotion. The age of subject ranged from 2 to 22 years with a mean of 15.58 (95% C1: 14.56 to 16.60). There was no significant difference in the age of patients assigned to both lotions (p=547). The gender of patients assigned was statistically the same. The cure rate of *T. cordifolia* lotion as compared with permethrin as anti-scabies drug was almost the same whereas *T. cordifolia* lotion was inexpensive as compared to commercially available drugs. In Karachi, the percentage rate of is 22.7% which is more than other skin infections (Rathi *et al*., 2001). Earlier, Khatoon *et al*. (2016) reported presence of scabies in children of Karachi and found that hands, head and feet were the most infected body parts. Ivermectin was effective antiscabietic for children as it was easy to administer and the children had good acceptability. The present study in males highlights the need to diagnose dermatoses at early stages by training general practitioners these include all family members must be treated, scrub bath must be avoided, scabicides must be applied at bedtime and washed off the next morning, simply laundering of clothes and bed sheets or even storing them for a few days is adequate for limiting transmission, nodular scabies may require intralesional infection with triamcinolone acetomide for treatment as scabies may require multiple application with scabicides. High prevalence on knees could be as most of the patients visiting hospital wore high boots of plastic while working in vegetable market (Sabzi Mandi) or when working near garbage bins.

Conclusion

Scabies being a highly contagious skin disease must be treated at the earliest using appropriate scabicide. The entire family must be treated because of contagiousness and reinfection. Awareness in the suffering groups must be created to eradicate the disease.

Acknowledgement

The authors are grateful to Dr. Ganesh Ahuja for his help in collecting data.

Statement of conflict of interest

Authors have declared no conflict of interest.

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