

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Research Article ISSN 2394-3211

EJPMR

DEMOGRAPHIC ASSESSMENT OF PATIENTS DAIGNOSED WITH QOOBA (DERMATOPHYTOSIS): AN OBSERVATIONAL STUDY

Adnan Mastan¹*, Rais Ur Rahman² and Farah Naaz¹

*¹Research Associate, Central Council for Research in Unani Medicine, New Delhi.

²Director General, Central Council for Research in Unani Medicine, New Delhi.

*Corresponding Author: Adnan Mastan

Research Associate, Central Council for Research in Unani Medicine, New Delhi.

Article Received on 20/05/2016

Article Revised on 10/06/2016

Article Accepted on 30/06/2016

ABSTRACT

Qooba (Dermatophytosis) is a clinical condition caused by fungal infection of skin in humans and other vertebras. The fungi that cause Dermatophytosis feed on keratin, the material found in the outer layer of skin, hair and nails. The purpose of this study was to explore demographic distribution of patients diagnosed with Qooba. The study was conducted on 60 cases of Qooba (Dermatophytosis). Patients, fulfilling the selection criteria, were evaluated for their demographic distribution. Diagnosis was confirmed on the basis of clinical presentation and the KOH examination of affected part. For demographic assessment Case Record Form (CRF) was designed and all the data was collected accordingly. The findings suggested that it is in accordance with the previous studies conducted on epidemiology of Dermatophytosis and in consonance with classical Unani literature.

KEYWORDS: Qooba, Dermatophytosis, Dermatophytes, Demographic.

INTRODUCTION

The skin is in intimate contact with the environment and as such very much exposed to infective agents like bacteria, fungi and viruses. Mycotic infection has been considered to be a major public health problem in many parts of the world. The superficial Mycotic infections had risen to such a level that skin mycoses now affects more than 20-25% of globe population^[1,3], making them one of the most frequent form of infections. ^[21,22]

A typical lesion of tinea is an arcuate or annular plaque which spreads centrifugally. The edge is active, showing papulo-vesiculation, pustulations and scaling while center is relatively clear. Dermatophytosis is classified according to the site of affection such as tinea capitis (Head), tinea barbae (Beard), tinea facei (Face), tinea corporis (Body), tinea inguinalis or cruris (Groin), tinea manus (Hands), tinea pedis (Foot), tinea unguim (Nails). Predisposing factors for the dermatophytosis are skin trauma, hydration state of macerated skin, occlusion, elevated temperature and humidity along with the state of host defenses.

Host Factors Associated With Dermatophytosis

Age

Prepubertal children between 6 months and 12 years, especially boys, are more susceptible to Tinea Capitis. ^[2,4] The adults are spared from T. capitis because of the presence of sebum, which is absent in prepubertal children.

Sex

Dermatophyte infections are, in general, more common in males (Table 2). T. capitis is more common in boys than girls. This is due to the shortness of hair in boys and the ease with which the spores can reach the scalp. T. cruris is more prevalent in males, the M: F is 2.5:1 to 3:1.7. [15] T. barbae is seen only in males.

• Socioeconomic Status

It commonly occurs under poor hygienic conditions.^[18] Its prevalence remains low in developed countries. Athlete's foot or T. pedis, the most widely suffered dermatophyte infection, is considered a disease of affluence and high standard of living due to more use of occlusive footwear.^[2]

· Customs and Habits

Vegetable oils were believed to be a protective factor against acquiring T. capitis. Mustard oil used in North and North east India for hair dressing was found to have an inhibitory effect on fungi affecting the scalp, People who use occlusive footwear have an increased incidence of T. pedis.^[10] Some other contributing factors include indigestion, and wearing of dirty and moist clothes.^[13]

Associated Diseases

Susceptibility to persistent dermatophyte infection has been associated with a number of underlying conditions such as diabetes mellitus, Cushing's syndrome, Lymphoma, frequent usage of antibiotics, immunosuppressive drugs and organ transplantation. [25]

Familial endocrinopathies and condition of defective CMI responses like collagen vascular diseases alter the clinical appearance and course of infection. Staphylococcus aureus infection enhances the degree of inflammation in Dermatophytosis.^[20]

• Endocrine and Metabolic Factors

Hormonal factors may predispose to infection; the female hormone progesterone is an effective inhibitor of fungal growth. Therefore, females are more likely to skip the infections. The male dihydrotestosterone is an effective inhibitor of progesterone binding site. So males are at more risk of developing Dermatophytosis.

Dietary Factors

Deficiency of proteins and vitamin A is the predisposing factor, especially for T. capitis. The consumption of camel and weak buffalo meat and excessive sweets is thought to be the contributing factor. [19] Excessive consumption of sweetened food items also predisposes to the development of Qooba. [13]

• Environmental Factors

It is a disease of fasl-e-kharif (rainy season). [8] Majorities of the cases of Dermatophytosis are seen during the rainy season. The frequency of fungal infection varies with seasons. The highest number of tinea pedis and cruris occurred in summer, while tinea capitis, corporis, and unguium occurred in spring and winter months. [18]

In Unani literature disease have been delineated in detail, Zakariya Razi (850-923 A.D), an eminent Unani physician described Qooba as a skin disease which is characterized by dryness and scaling, sometimes vesicle formation associated with intense itching and burning. [10] Ibne Sina (980-1037 A.D) described the disease as blisters having Itching, irritation and burning.[8] Countless supplementary words have additionally been utilized for this illness e.g. Karyoon, Daryoon and Daad [9] In Unani system of medicine the principle of treatment is aimed at the alteration or removal of morbid material, which is the main culprit for the genesis of pathology leading to development of disease.[11,12] Many ancient healers have recommended drugs possessing Musaffie Dam (blood purifier) and Mudammil Qurooh (healing) properties for the treatment of the disease. [13] The drugs endowed with such properties seem to have the potential to counteract the underlying pathology. Thus, Musaffie effect may selectively negotiate with the morbid material, either by neutralizing or removing it; while Mudammil effect may promote the healing once the morbid matter is removed from the body, inflammation is resolved; proper healing takes place and chances of recurrence minimize automatically. Along with oral use of drugs, Unani physicians have given great emphasis on the local treatment in the form of Zimad (paste), Tilaa (embrocations) and Marham (ointment). [12]

MATERIAL AND METHODS

The study was conducted on 60 established cases of Qooba (Dermatophytosis) in the skin OPD of A & U Tibbia College & Hospital, Karol Bagh, New Delhi. The study was designed as an observational study. Diagnosis was confirmed on the basis of clinical presentation and the KOH examination of affected part. For demographic assessment CRF was designed and all the data was collected accordingly.

RESULTS AND DISCUSSION

The term "risk factor" was first coined by former Framingham Heart Study Director, Dr. William B. Kannel. Some prefer the term risk factor to mean causal determinants of increased rates of disease, when done thoughtfully and based on research; identification of risk factors can be a strategy for screening of patients.^[23] The present study was aimed to evaluate the demographic distribution of patients diagnosed with Qooba. Diagnosis was confirmed on the basis of clinical presentation and the KOH examination of affected part. For demographic assessment CRF was designed and all the data was collected accordingly. Data was entered in the master chart for assessment.

Distribution of Patients According to Age

In Present Study the higher incidence of Qooba was observed in the age group of 21-30 years (38.33%) followed by age group of 31-40 years (20%), 41-50 years (18.33%), 51-60 years (13.33%) (Table: 1). This data suggests that the disease is more prevalent in young adults. This is in accordance with the description given by BV Peerapur et al.^[14]

Table 1. Distribution of patients according to Age

| Age Group (Years) | No. of Patients | Percent |
|-------------------|-----------------|---------|
| 18-20 | 5 | 8.33% |
| 21-30 | 23 | 38.33% |
| 31-40 | 12 | 20% |
| 41-50 | 11 | 18.33% |
| 51-60 | 8 | 13.33% |
| 61-65 | 1 | 1.66% |
| Total | 60 | 100% |

Distribution of Patients According to Gender

The higher incidence of Patients was observed in males 75% and only 25% incidence was observed in females (Table: 2). This finding indicates male preponderance and is in accordance with finding mentioned by BV Peerapur et al.^[14] and Hugo Degreef et al.^[15]

Table 2. Distribution of patients according to Gender

| Gender | No. of Patients | Percent |
|--------|-----------------|---------|
| Male | 45 | 75% |
| Female | 15 | 25% |
| Total | 60 | 100% |

Distribution of Patients According to Religion

In this present study more patients were from Hindu religion (65%) than Islam (33.33%) and only 1 (1.66%) case was noticed from other religion (Table: 3).

Table 3. Distribution of patients according to Religion

| Religion | No. of Patients | Percent |
|----------|-----------------|---------|
| Hindu | 39 | 65% |
| Islam | 20 | 33.33% |
| Others | 1 | 1.66% |
| Total | 60 | 100% |

Distribution of Patients According to Marital Status

The higher incidence of Patients was observed in married 73.33% and only 26.66% incidence was observed in Non-married (Table: 4).

Table 4. Distribution of patients according to Marital Status

| Marital Status | No. of Patients | Percent |
|----------------|-----------------|---------|
| Married | 44 | 73.33% |
| Non-Married | 16 | 26.66% |
| Total | 60 | 100% |

Distribution of Patients According to Socioeconomic Status

In this present study higher incidence of patients were from Upper Lower socioeconomic group (35%) followed by Upper Middle socioeconomic group (28.33%) and Low socioeconomic group (21.66%) (Table: 5).

Table 5. Distribution of patients according to Socioeconomic Status

| S.E.S | No. of Patients | Percent |
|--------------|-----------------|---------|
| Low | 13 | 21.66% |
| Upper Lower | 21 | 35% |
| Lower Middle | 5 | 8.33% |
| Upper Middle | 17 | 28.33% |
| Upper | 4 | 6.66% |
| Total | 60 | 100% |

Distribution of Patients According to Duration of Illness

In this present study duration of illness ranged from 1 to 5 years. Maximum no. of Patients came with 1 to 3 months of illness (35%) followed by 4 to 6 months of illness (20%) and 0 to 30 days (20%) (Table: 6). This indicates that the disease is chronic and resilient in nature and progresses slowly. The finding is in accordance with the description made by Razi and Ibne Sina that the Qooba, sometimes develops and heals slowly, if Akhlate Arzia are in excess. [24]

Table 6. Distribution of patients according to Duration of Illness

| DOI | No. of patients | Percent |
|------------|-----------------|---------|
| 0-30Days | 12 | 20% |
| 1-3Months | 21 | 35% |
| 4-6Months | 12 | 20% |
| 7-12Months | 7 | 11.66% |
| >1Year | 8 | 13.33% |
| Total | 60 | 100% |

Distribution of Patients According to Contact History

In this present study maximum no. of patients give No contact history (73.33%) but some had contact history with humans (16.66%) while some had contact history with animals (6.66%) and some with soil (3.33%) (Table: 7). The lower percentage indicated that although the disease is communicable, it is not highly contagious.

Table 7. Distribution of patients according to Contact History

| Contact History | No. of Patients | Percent |
|-----------------|-----------------|---------|
| Anthropophilic | 10 | 16.66% |
| Zoophilic | 4 | 6.66% |
| Geophilic | 2 | 3.33% |
| None | 44 | 73.33% |
| Total | 60 | 100% |

Distribution of Patients According to Mizaj

The higher incidence of Patients was observed from Damvi Mizaj (43.33%) followed by Saudavi Mizaj (26.66%), Balghami Mizaj (18.33%) and Safravi Mizaj (11.66%) (Table: 8). This finding is in consonance with classical Unani literature in which Dame Raqeeq Mutaharriq converts into Sauda to produce Qooba. [16,17]

Table 8. Distribution of patients according to Mizaj

| Mizaj | No. of Patients | Percent |
|----------|-----------------|---------|
| Damvi | 26 | 43.33% |
| Balghami | 11 | 18.33% |
| Safravi | 7 | 11.66% |
| Saudavi | 16 | 26.66% |
| Total | 60 | 100% |

CONCLUSION

Qooba is a well-known disease Since Greco Arabic Period. It is one of the most frequent forms of superficial fungal infection. Although the disease itself does not lead to mortality, every now and then, the condition may become extremely nagging and at times may become abashing too. In present study, our emphasis was on Demographic assessment wherein, we tried to find out demographic distribution of patients in established cases of Qooba. The findings suggested that it is in accordance with the previous studies conducted on epidemiology of Dermatophytosis and in consonance with classical Unani literature. The study needs to be extrapolated further on lager sample size.

REFERENCES

- 1. Behl, P.N, Practice of Dermatology, 8th edition, 1999, CBS Publishers & Distributors, Daryaganj, New Delhi, pp.6-22, 51-63.
- 2. Kanwar AJ, De D. Superficial Fungal Infections. In: IADVL Textbook of Dermatology, 3rd ed. Edited by Valia RJ, Valia AR. Mumbai: Bhalani Publishing House, 2008; 252-276.
- Montagna, W., The Structure function of skin, 1962, 2nd ed. Academic Press New York and London, pp.1.
- 4. Fernandes NC, Akiti T, Barreiros MGC. Dermatophytoses in Children: Study of 137 Cases. Rev. Inst. Med. Trop. S. Paulo., 2001; 43(2): 83-85.
- Khanna N, Illustrated synopsis of Dermatology and Sexually Transmitted Diseases, 1st edition, Peepee Pub and Dist. 2007; 218-222.
- 6. Habif Thomas P., Clinical Dermatology, 4th ed., 1996, Mosby Publications, USA, pp.1-2, 684-690.
- Christopher RW, Edwards, & Bouchier AD, Davidson's Principles and Practice of Medicine, 18th edition, Churchill Livingstone, UK, 2001; 142-148, 910-911.
- 8. Ibn-e-Sina AA. A1 Qanoon Fit Tib (Urdu translation), Vol-4. Aijaz Publishing House; YNM, 1430-1432.
- 9. Jurjani I. Zakheera Khawazam Shahi. (Urdu translation by Khan HH), Vol-7. New Delhi: Idara Kitabush Shifa, 2010; 24-26.
- 10. Razi AMBZ. Alhavi Fit TIB (Urdu translation by Jafri SA, Siddiqui MY). Vol. 23. Part 2. Aligarh: Saba Publishers, 1994; 46-52.
- 11. Tabri AM. Moalijat Buqratiya (Urdu translation by CCRUM). Vol.2. New Delhi: Ministry of Health and Family Welfare, 1997; 211-213.
- 12. Kabeeruddin M, Tarjuma-e-Kabir (Urdu translation of Sharah-e-Asbab), Vol 3, Hikmat Book Depot, Hyderabad, 1916; 314-316.
- 13. Khan A. Hazique. New Delhi: Beesween Sadi Book Depot, 1987; 546-48.
- 14. Peerapur BV, Inamdar AC, Pushpa PV, et al. Clinicomycological Study of Dermatophytosis in Bijapur. Indian Journal of Medical Microbiology., 2004; 22: 273-274.
- 15. Degreef H. Clinical Forms of Dermatophytosis (Ringworm Infection). Mycopathologia., 2008; 166: 257-265.
- 16. Tabri AR. Firdausul Hikmat (Urdu translation by Ashraf R). Pakistan: Hamdard Foundatioin, 1981; 294-297.
- 17. Jamaluddin, Aqsaraee. Vol.1. Munshi Naval Kishore; YNM, 478-479.
- 18. Bassiri-Jahromi S. Khaksari AA. Epidemiological Surevey of Dermatophytosis In Tehran, Iran, from 2000 to 2005. Indian J Dermatol Venerol Leprol., 2009: 75: 142-7.
- 19. Khan MA. Akseer Azam, Vol.-4. Kanpur: Matba Nizami, 1289 (AH); 436-439.

- 20. Weitzman I, Summerbell RC. The Dermatophytes. Clinical Microbiological Reviews., 1995; 8: 240-259.
- 21. Havlickova B, Czaika VA, Friedrich M. Epidemiological Trends in Skin Mycoses. Worldwide. Mycoses., 2008; 51: 2-15.
- 22. Fernandes NC, Akiti T, Barreiros MGC. Dermatophytoses in Children: Study of 137 Cases. Rev. Inst. Med. Trop. S. Paulo., 2001; 43(2): 83-85.
- 23. https://en.wikipedia.org/wiki/Risk_factor accessed on 15th June 2016.
- Razi AMBZ, Kitabul Fakhir Fit Tib (Arabic translation by CCRUM). Vol. 1. New Delhi: Ministry of Health and Family Welfare, Govt. of India, 2005; 40-42.
- 25. Kannan P, Janki C, Selvdi GS; Prevalence Of Dermatophytes and Other Fungal Agents Isolated from Clinical Sample. Indian Journal of Medical Microbiology., 2006; 24: 212-215.