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"Quba (Dermatophytosis) And Its Management In Unani And Modern Perspective - An Overview."

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Abstract

Quba (Dermatophytosis) represents a skin surface disturbance characterized by itching, scaling, and dryness. Occasionally, there may be shedding of scales resembling those of fish, displaying colors that can vary between black and red. The affected region typically exhibits redness around its edges, and sporadically, there might be the release of a yellowish fluid. In Unani System of Medicine, the development of *Quba* (Dermatophytosis) is associated with abnormal blood. Dermatophytosis, the most widespread type of skin infection, impacts roughly 20-25% of the global population, presenting a significant worldwide health challenge, as outlined in the World Health Organization (WHO) report. In this review article we made an attempt to discuss the *Quba* (Dermatophytosis) and its management in the light of Unani and modern perspective.

Keywords: Skin, Quba, Dermatophytosis, Tinea, Unani System of Medicine, GTCH

Introduction

Dermatophytosis, commonly referred to as *Quba*, is recognized as a significant public health concern in various parts of the world. The foundational structure of this system relies on the holistic approach derived from the Hippocratic theory of the four *Akhlat* (Humours) – *Dam* (blood), *Balgham* (phlegm), *Safra* (yellow bile), and *Sauda* (black bile). [1] In Unani literature, it is described as a form of skin irregularity characterized by roughness on the skin's surface, often accompanied by itching, scaling, and redness. The lesion's coloration typically ranges from red to black, with a red periphery indicating an active infection. Occasionally, there might be a discharge of yellowish fluid.[2,3,4] The term "ringworm fungi" pertains to a group of filamentous fungi scientifically recognized as dermatophytes. These fungi infect keratinized tissues, leading to predominantly superficial infections of the skin, hair, and nails. They stand among the most prevalent culprits responsible for skin conditions globally, although their actual frequency is likely underestimated. [5]

Various names have been assigned to this condition; in Persian, it's referred to as *Paryoon* and *Daryoon*, while in Hindi or the local language, it's commonly known as *Daad*. In the realm of English or medical science, it is identified as a Fungal infection, Ringworm, Tinea, superficial dermatophytosis/mycosis, superficial mycotic infection, and Favus. The commonly designated infection, known as Tinea, is caused by dermatophytes, a group comprising more than 40 closely related species of fungi. These fungi are classified into three genera: Microsporum, Trichophyton, and Epidermophyton. Unani system of medicine holds a rich repository of effective and safe drugs. Numerous esteemed Unani physicians have recommended diverse drugs and formulations for the treatment of this condition.[8,10,11,12,14,20]

Background

Quba (Dermatophytosis) stands as one of the oldest and most prevalent skin diseases, existing long before its true mycological nature was comprehensively established. Unani physicians have meticulously documented comprehensive information about Quba in their respective texts. Below, we discuss insights from a few of these texts:

Aulus Cornelius Celsus, the Roman encyclopaedist, detailed a suppurative infection of the scalp, known as the kerion of Celsus, in his treatise *"De Re Medicina"*. [6]

Ismail jurjani (12th century AD) stated in *Zakheera Khwarzam Shahi*, Paryun is a Persian name of quba and in hindi it is named as Daad. He described the two main causes for the existence of quba. One is *khilte-e-bad* (noxious humour) and another is *Quwat-e-tabiyat* (corrective faculty). [7]

Hakeem Akbar Arzani, in his 17th-century work *"Tibb-e-Akbar,"* characterized *Quba* as a skin condition manifesting as roughness on the external surface. This manifestation could present as black or red in color and had a tendency to spread. In chronic cases, the affected skin would undergo a transformation where it would shed off, resembling scales similar to those of a fish. [8]

Ahmad Tabari, in his 10th-century work *"Moalejat-e-Buqratiya,"* described *Quba* as closely resembling urticaria, affecting the external surface of the skin. Typically, it presents in a round shape and covers a substantial area of the skin. Regarding its etiopathogenesis, Tabari proposed that pathogenic irritating substances escape from minute capillaries, leading to the formation of hyperpigmented papules. As the condition progresses, these papules expand, taking on a larger annular shape. Tabari also categorized *Quba* into three types known as *jins: Jins-e-damwi, Jins-e-ratoobi,* and *Jins-e-saudawi*. [9]

Ali Ibn Abbas Majoosi, in his work *"Kamil-us-Sana"* during the 10th century (1930-999), mentioned that Quba originates from sauda, which in turn is formed from *ehtraq-e-dam*. Additionally, he extensively discussed the causes, clinical presentation, and treatments related to *Quba*. [10]

Zakariya Razi (850-923 A.D.), known for his work *"Al-Hawi fi al-Tibb"* ("Comprehensive Book on Medicine"), provided an extensive description of quba, classifying it into *Quba ratab* (moist) and *Quba yabis* (dry). He detailed various regimens for its treatment and also emphasized the beneficial use of oil in treating *Quba*. [11]

Etiology

Quba, as defined by the ancient Unani physicians, is a black or red skin roughness. It comes from both the *tez* (sharp) blood and the It was combined with *ghaleez sauda*. Its existence is caused by burned *ghaleez ratubat* aur *balghame-shor*, which combined with *tez* (sharp) blood. This is present in chronic qooba state. [12] The fluid that is *harsh, harif* (astringent), or pungent and combined with *ghaleez saudavi madda* (viscous, melancholy humour) is what causes *quba*, which is similar to *safa'a* in that it is more viscous than *jarb* (scabies). There could be further reasons for it, such as burning *balgham maleh* (saline phlegm) that becomes *sauda* (melancholic humor). [13]

Pathogenesis

The main factor that extracts the morbid materials from the *Aaza-e-raesa* (vital organs) and directs them outside the skin is known as *tabiyat*, or natural power. *Khlate Arzia Ghaleeza* (thick and gritty humours) and *akhlat-e-harra wa lateefa* (hot and thin humours) are combined to create this morbid substance. The illness spreads in both directions because of the dual character of *Akhlat*, which is caused by the duality of matter. As a result of the *madda's latafat* (thinness) and *hiddat* (intensity), it spreads greatly. Additionally, if *akhlat-e-harra* predominates in the illness-causing material, the disease both fulminates and heals more quickly; conversely, if *akhlate-e-arzia* predominates, the sickness develops and heals more slowly. [14]

Dermatophytes Classification

Trichophyton – Trichophyton is a broad genus of fungi known for causing dermatophytosis or ringworm in humans and animals. Alongside the previously mentioned species, it includes others like T. tonsurans, T. interdigitale, and T. verrucosum. These fungi typically target the hair, skin, and nails, leading to various dermatological conditions. Their significance in dermatology stems from their widespread prevalence and impact on both human and animal health. Understanding their behavior and pathogenicity is crucial in developing effective treatments for related fungal infections. [15]

Microsporum – Microsporum, a genus encompassing 17 species, notably M. audouinii and M. canis, primarily affects the hair and less frequently impacts the smooth skin, rarely involving the nails. [15]

Epidermophyton - This genus consists of two known species, with only E. floccosum being pathogenic. It primarily affects human skin and nails, while sparing the hair. [15]

Clinical Classification of Dermatophytosis

Clinically, the types of dermatophytosis are classified according to the site of infection.

The degree to which anatomical area is affected determines the classification of Dermatophytosis. As a result, frequent fungal infections include Tinea corporis (glabrous skin of the chest, back, and belly), Tinea cruris (groin), Tinea capitis (head), Tinea pedis (foot), Tinea mannum (hands), Tinea unguium (nails), Tinea barbae

(beard), and Tinea faciei (face). Additional clinical variations include Majocchi granuloma, Tinea imbricate, Tinea pseudoimbricata, and Tinea incognito. [16]

Tinea Cruris: (Tinea Inguinalis, Dhobi's itch)

The described form of infection originates on the inner sides of the upper thighs and then spreads to adjacent areas such as the scrotum, penis, vulva, perineum, and subsequently extends to the buttocks and trunk. It is commonly caused by Epidermophyton and Trichophyton. It begins as a small circinate lesion. Typically, it is found as well-defined patches of scaling, vesicles, and pustules with inflammation most distinct at the periphery of the lesions. [17,18]

Tinea Corporis

The appearance of tinea corporis, also known as an infection of glabrous skin, which is largely hairless, might vary depending on the severity of the inflammatory response that is linked to it. The term "ringworm" comes from the erythematous, scaly plaque that typically results from the infection. The plaque has an annular appearance. Certain infections can cause granulomas or deep inflammatory nodules. [19]

Tinea Capitis

The majority of cases of this dermatophyte infection of the scalp and hair shaft occur in children. Usually, it shows up as a region of inflamed, scaling scalp, frequently accompanied by pustules and partial hair loss. An infection within the shaft (endothrix, such as T. tonsurans) might result in patchy hair loss, little inflammation, and little fluorescence when exposed to Wood's light. Kerion, a soggy, inflamed region of tinea capitis, is typically brought on by zoophilic fungi (such as T. verrucosum, which causes cow ringworm). [20]

Tinea Barbae

Tinea barbae affects the face unilaterally and involves the beard area more often than the moustache or upper lip. Two forms exist, superficial and inflammatory types

Tinea Pedis

The dermatophytosis of the toe webs and plantar surface of the feet is known as tinea pedis. The two essential elements in the establishment and maintenance of the illness are the warmth and wetness that shoes provide. Known by many as "Athlete's Foot," it is frequently observed in persons who wear shoes for extended periods of time. Compared to children, adults have a far higher incidence of Tinea pedis. [21]

Tinea Nigra

Tinea nigra is found on otherwise healthy people and presents typically as an asymptomatic, mottled brown to greenish-black macule or patch with minimal to no scale on the palms or soles. The macule is often darkest at the advancing border. Because of its coloration and location on palms and soles, tinea nigra is frequently misdiagnosed as acral lentiginous melanoma. [22]

Tinea Mannum

The palmer side of the hands as well as the bilateral and unilateral interdigital areas are affected by tinea mannum, a superficial skin infection. The palms of this variety get scaly, diffusely dry, and erythematous. [20,22]

Tinea unguium

Onychomycosis, also known as tinea unguium, is a nail infection. Clinical manifestations of onychomycosis typically include nail deformity and discoloration, thicker, chalky, yellowish nails, and broken, dystrophic nails. Adults and teenagers experience it more frequently than youngsters. [20,21]

Diagnosis

A centrifugally spreading lesion that is annular or arcuate is called a prototype lesion. Scaling, pustulation, and papulo-vesiculation are all present in the active margin. Although the center of chronic lesions may have nodules, hyperpigmentation, or even lichenification, the center is generally clean. These features are subject to change based on: location of the illness and Fungi strain: Inflammation is reduced by anthropophilic fungi, which are spread from person to person. Despite the fact that both geophilic and zoophilic fungi can cause serious inflammation when they spread from soil to humans or from animals to humans
The lesions can also be identified using Wood's Lamp and dermoscopy. Additionally, for confirmation, skin biopsies, culturing, and potassium hydroxide (KOH) scraping can be performed. [23]

Differential Diagnosis

Clinical manifestations of tinea corporis, cruris, capitis, pedis, and faciei vary and can resemble other skin diseases [24]

T. capitis	**T. corporis**	**T. cruris**	**T. unguium**
Alopecia areata, Psoriasis, Pityriasis capitis, Seborrheic dermatitis	Discoid eczema, Pityriasis rosea, Atopic dermatitis, Contact dermatitis	Candidal intertrigo, Psoriasis, Cutaneous candidiasis	Nail psoriasis

Unani Management

In unani system of medicine the management of qooba is according to the causative agent i.e. *akhlat* (humorous), severity of the disease, duration of the disease, clinical manifestations etc. as we know, unani system of medicine is usually based on the *tanqiyae-e-badan*, *Munddij therapy*, *Mushil therapy* and *Tabrīd therapy*, *Irsāl-i-Alaq*, use of *Muṣaffiyāt*, *Ḥijāmah* and other Unani formulations. As the basic cause of quba is disarrangement in *sauda*, so the mainstay of treatment is based on the removal of *sauda* from the body. *Galeez madda* (thick morbid matter) is eliminated by using the drugs which have the property of *tahleel, taqti, talteef*, etc. And for the removal of hot and thin morbid matter those drugs are used which posseses the property of *taskeen* and *tarteeb* . [25] In spite of oral drugs, there are many topical applications which are frequently advised for the same. Apart from this, some kind of regimental therapy are being in use for this disease.

Some formulations for local application by unani scholars are as follows: [26, 27, 28]

- Paste made of reddish/ushq seeds mixed with vinegar
- Paste made of roghan e badam talkh, murmuki, asafoetida, hummas, samagh arabi, zaravand mudahrij, and raghan
- Paste made of combination of vinegar, roghan e gandum, zaravand, zarnikh, ushq, mukul, khardal, and zaj
- Paste made of vinegar, honey, and cinnamon
- Paste made of chukandar/water/garlic/suddab + honey
- Paste made of nakchakni, henna, Ushq
- Paste made of ushq lemon juice plus vinegar
- Paste made of rogahne and lemon juice
- Paste made of shadnaj/ilakul batan and sulfur
- Paste made of sugar,opium,sugar,kaat safed and sulfur
- Paste made of olive oil, gandum and sabus
- Paste made of mercury and tukhme panwar
- Paste made of zafte romi and mom zard

Some compound drugs for local application with specific names are; [28, 29, 30, 31]

- Habbe qooba
- Habbe tila
- Habbe dad
- Zimad dad
- Marhame dad
- Marhame zararih
- Marhame qooba
- Roghane qooba

Oral Antifungal Agents [22]

MEDICATION	DRUG CLASS	INDICATIONS	WARNINGS/MONITORING
Fluconazole	Triazole	Onychomycosis Tinea barbae Tinea capitis Tinea corporis/cruris Tinea pedis/manuum	Adverse effects: headache, GI upset Caution: liver and/or renal impairment Contraindications: pregnancy, Monitor liver function tests, basic metabolic panel, complete blood cell count; pregnancy test prior to start in females Pregnancy category D
Griseofulvin	Inhibits fungal mitosis	Tinea barbae Tinea capitis (First-line Microsporum) Tinea corporis/cruris Tinea pedis/manuum	Adverse effects: headache, GI upset Caution: liver impairment Contraindications: porphyria, pregnancy, hepatic failure Check pregnancy test prior to start in females Pregnancy category X

Itraconazole	Triazole	Onychomycosis Tinea barbae Tinea capitis Tinea corporis/cruris Tinea pedis/manuum	Adverse effects: headache, GI upset Caution/contraindication: cardiac failure, hepatotoxicity Monitor liver function tests, basic metabolic panel, complete blood cell count baseline and at 1 month Check pregnancy test prior to start in females Pregnancy category C
Terbinafine category B	Allylamine	Onychomycosis (first-line) Tinea barbae Tinea capitis Tinea corporis/cruris Tinea pedis/manuum	Adverse eects: GI upset, taste disturbance, elevation of liver enzymes Risk of hepatotoxicity Monitor liver function tests baseline and at 1 month Pregnancy

Topical Antifungal Agents

MEDICATION	CLASS/ MECHANISM	FORMULATION	USE	ADMINISTRATION	WARNING/ PRECAUTIONS
Amorolfine	Morpholine	Liquid, 250 mg/ 5 mL	Onychomycosis (dermatophyte or Candida) treatment and/or relapse prophylaxis	Apply 1 to 2 times/week after gentle nail -ling × 6 to 12 months	Not available in the United States
Butena-ne	Synthetic allylamine	Cream, 1%	Tinea corporis, cruris, pedis, versicolor	Apply 1 to 2 times daily for 1 to 4 weeks	Pregnancy category C Children ≥12 years of age
Clotrimazole	Imidazole	Cream, 1% Ointment, 1% Solution, 1%	Tinea corporis, cruris, pedis, versicolor	Apply twice daily × 1 to 4 weeks	Pregnancy category B
Econazole	Imidazole	Cream, 1% Foam, 1%	Tinea corporis, cruris, pedis, versicolor	Apply 1 to 2 times daily × 2 to 4 weeks	Pregnancy category C Children ≥12 years of age
Ketoconazole versicolor, seborrheic dermatitis Apply, wait 5 to 10 mins prior to	Imidazole	Cream, 2% Foam, 2% Gel, 2%	Tinea corporis, cruris, pedis, versicolor; cutaneous	Apply 1 to 2 times daily	Pregnancy category C Children ≥12 years of age Shampoo, 1% and 2% Tinea capitis adjuvant, tinea

rinsing; use 2 to 3 times/ week to treat, 1 to 2 times/ week as prophylaxis			Candida; seborrheic dermatitis		

CONCLUSION

The understanding of *Quba* (Dermatophytosis) from Unani and modern viewpoints is included in our analysis in this research. The Unani and modern literary works portray *Quba* in a similar way, yet the causes of the illness are very different. In contrast, the treatment plan at USM includes *Ilaj bil Di'd*, the use of *Hijamah*, *Mussaffiyat*, and other Unani formulations, *Mundij* therapy, *Tabrid* therapy, *Mushil* therapy, and the evacuation of harmful morbid *Khilt* from the body utilizing *tanqiyae badan*.

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