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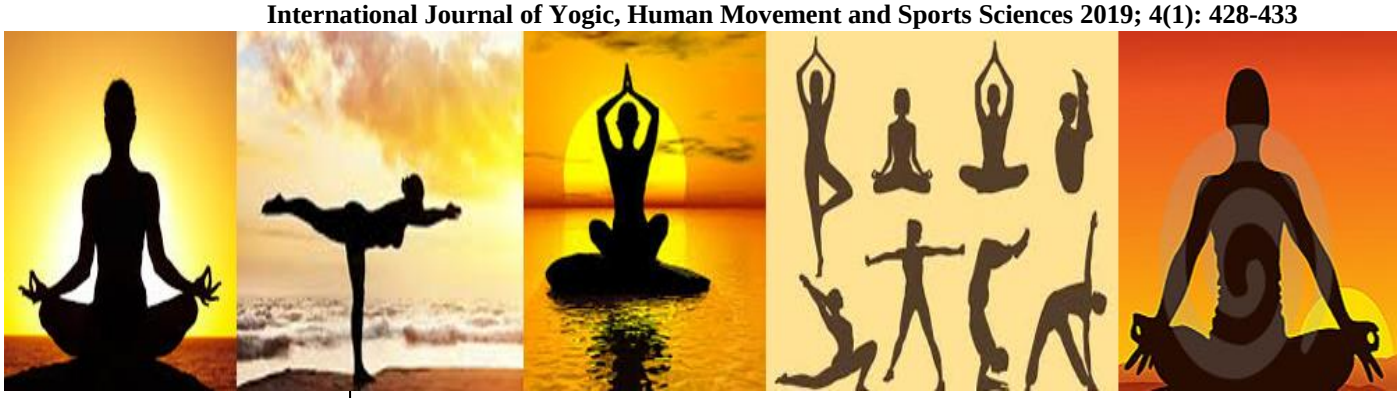

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Concept of therapeutic approach of superficial dermatophytosis in unani medicine

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Abstract
In Unani System of Medicine there is rich treasure regarding Amraz-e-Jild, Amraz-e Zahraviya and Amraz-e-Tazeeniyat and the ancient physicians has discussed a lot regarding various dermatological and cosmetic disorders along with its proper management protocol vividly. As per the knowledge of that time the description are quite logical, justified but there is always scope of development in the field of medical sciences and evaluation of new areas such as microbiology, immunology and as well as molecular biology has transformed the whole medical fraternity and given a new dimension to think and develop different modes of treatment. One of them is Unani medicine which has no side effects or lessen side effects.

This paper demonstrates the therapeutic approach of Dermatophytosis through Unani drugs. As we are probably aware about that allopathic treatment has side effects or reactions on using it. if treatment is mentioned in Unani system of medicine, why can't we utilize the herbs/Unani drugs with affirmation, people will get advantages with no side effects.

This is the incredible opportunity for Unani fraternity as they advance their pathy and aware the general society about the Unani medicine, its amazing advantages and results. Furthermore prove the efficacy of formulations which are mentioned in the Unani literature.

Keywords: Qooba, superficial dermatophytosis, side effects, therapeutic approach, unani medicine

Introduction

Dermatophytosis or ringworm is a disease caused by fungal infection of the skin in humans, pets and domesticated animals. The superficial Keratined tissues-skin, hairs, Nails are commonly infected by Dermatophytes. The presentation of Dermatophytes infection is of various types, most popularly called Tinea or ringworm. Dermatophytes have been classified into three genera-Trichophyton, Microsporum and Epidermophyton. All are known to cause infection in man and animals [1].

Definition and clinical presentation as per unani concept

- Qooba is a disease which causes roughness of skin with other symptoms such as itching, redness and sometimes fish like scales shed off. The usual colour of the lesion is red or black with red periphery and at times yellow colour oozes out. These conditions advance as per as pathogenic substances [2, 3, 4].
- In this disease circular patches are found on the skin, mainly this is a dryness and roughness of skin associated with boils in which itching found, fluid oozes out. This disease mainly appears in the hairs and head region. At times it may also occur on the beard as well. Along with it, it might affect the other regions of the body as well [5].
- Qooba produces roughness and desquamation of skin surface, along with the shedding of skin. It seems as bars-e-Aswad that did not reach upto that extent of disease [4].

Etiology

- The factors which are responsible for the causation of Qooba might be a mixture of acute liquefied fluid of blood and black bile.

- And it might be because of melancholic humour i.e. black bile [4].
- The cause of Qooba similar to that of safa'a; that is the haad (sharp), harif(astringent) or pungent fluid which is mixed with Ghaleez Saudavi Madda (viscous melancholic humour) more viscous than the matter of jarb (scabies). Another cause of it may be due to balgham maleh (saline phlegm) which is burnt and converted into sauda (*Melancholic humour*) [6].
- Qooba is resembles to Safa'a it may also be Reffered to as Safa'a of the skin. The only difference is that the matter of the Qooba lies beneath the skin whereas in case of Safa'a it lies deep under the skin. Also, the matter of qooba is more Khabees.
- Dry Qooba originates from Saudavi matter and wet Qooba originates from blood mixed with sauda and it is reddish in colour.
- Wet Daad might be cure from mild treatment but it might get worse if it persists for long duration. In the case of qooba, scales shed from the body surface which are Namkeen-E-Shor and dry [7].

Definition and clinical presentation as per modern concept

Dermatophytosis or ringworm is a clinical condition caused by fungal infection of the skin of humans, pets, domestic animals [1].

- The clinical presentation are quite variable and depend on a number of factors, including the species of fungus, which account for 3-4 % of dermatological consultations, are known as dermatophytosis (ringworm, tinea) [8].
- Dermatophytoses can occur in any patient, irrespective of age or sex [9].
- Classical ringworm may occur in any age group, but generally affects the adult, all Dermatophyte species affect anywhere on the trunk or extremities or the face (Tinea faciei), single or multiple, small or large, itchy well defined, circular or circinate lesions with papulo-vasicular scaly or pustular lesions at the active border, central position is clear, spread peripherally, heal with hyperpigmentation [9].

Etiology

All species of Dermatophytes belonging to the genera Trichophyton, Microsporum or Epidermophyton can cause Dermatophytosis. The three most important causative organisms are T. *rubrum*, T. mentagrophytes, M. Canis. In India T. rubrum accounts for the majority of cases of tinea corporis [10].

Tinea Corporis (Tinea Circinata)

Tinea Corporis may either be caused by Zoophilic or Anthropophilic organisms, more rarely to geophilic fungi. Generally, when the fungi are Zoophilic the lesion is inflammatory and more closely resembles the classical tinea circinata. With Anthropohilic fungi such as T. rubrum the margins of the lesion are ill defined and there is little erythema or scaling. The area is involved may also be very extensive [9].

Tinea Corporis arbitrarily includes all dermatopyte infections of glabrous skin with the exclusion of certain specific locations (i.e., palms, soles, and groin) [10].

Tinea of the face (excluding the beard area in men), trunk, and limbs is called tinea corporis ("ringworm of the body"). The disease can occur at any age and is more common in warm climates. There is broad range of manifestations, with lesions varying in size, degree of inflammation, and depth of involvement. This variability is explained by differences in host immunity and the species of fungus. An epidemic of tinea corporis caused by Trichophyton tonsurans was reported in student wrestlers [11].

Tinea corporis arbitrary includes all Dermatophyte infections of the glabrous skin with the exclusion of the palms, soles and groins [10].

Etiology and pathogenesis: All species of Dermatophytes belonging to the genera Trichophyton, Microsporum or Epidermophyton can cause tinea corporis [10].

Pathogenesis: The organism responsible for tinea corporis generally invades thes tratum corneum, possibly aided by warm, moist and occlusive conditions, and resides in it. After about 1-3 weeks of incubation it starts spreading centrifugally. The active advancing border has an increased epidermal turn over rate (presumably an attempt to shed the organism by exceeding the fungal growth rate). This defence mechanism is successful to a certain extent, as there is relative clearing of infection in the centre of the annular or polycystic lesions. Serum inhibitory factor may be responsible for limiting this infection. Temporary resistance to infection occurs in this area for a variable time; however, a second wave due to reinfection is commonly seen later. In addition to involvement of the stratum corneum, the hair follicle may also be affected [10].

Clinical manifestation

The typical lesion of tinea corporis is usually annular or polycyclic.

- Its border are erythematous and vesicular and scaly, where as the centre is clear. The centre may show concentric rings. The clinical pattern is often modified in patients with defective cellular immunity.
- The degree of inflammation varies depending on the species of the fungus, the immune status of the host and the extent of follicular invasion. Thus tinea corporis is generally less inflammatory than tinea capitis.
- In inflammatory lesions, pustules and vesicles are common, but in quieter infections scaling is the most common finding. The central scaling may show post-inflammatory hyperpigmentation, a change of texture or residual erythematous dermal nodules.
- In tinea imbricata, concentric polycyclic rings become confluent to form a bizarre pattern covering most body surfaces.
- Tinea rubrum can produce large, scaly, minimally inflammatory plaques with little marginal accentuation.
- Tinea corporis can occur on any area of the body. When the infection is due to a zoophilic organism the lesions are commonly seen on exposed skin (the head, neck, face, and arms). Tinea corporis due to an anthropohilic organism occurs in occluded areas or in areas of trauma, ie. Perifolliculitis of the legs in women with leg shaving. Tinea corporis on or below the waistline is commonly seen in Indian women because of typical Indian costume, ie. Saris or Salwar-Kameez [12].

Differential diagnosis

This depends upon the clinical findings. Usually erythema annulare centrifugum, nummular eczema, granuloma annulare, pityrasis rosea and impetigo circinata should be considered.

If the lesion is more papulosquamous in appearance, then disease like psoriasis, lichen planus, seborrhic dermatitis,

pityriasis rosea or secondary syphilis should be ruled out, which is not very difficult as they are readily distinguished by their characteristic clinical picture and biopsy.

For the inflammatory variants of tinea corporis, bacterial, candidal or deep fungal enter the differential diagnosis. Tinea faciei, a variant of tinea corporis, may resemble lupus erythematous or photodermatoses [12].

Diagnosis/ Laboratory Investigations

The laboratory diagnosis of superficial and cutaneous mycosis depends on the microscopical observation of the pathogen in samples from the affected areas. This is usually followed by culture and the specific identification of the fungus [13].

One very characteristic pattern of inflammation is the active border of infection. The highest numbers of hyphae are located in the active border, and this is the best area to obtain a sample for a potassium hydroxide examination. Typically the active border is scaly, red, and slightly elevated. Vesicles appear at the active border when inflammation is intense. This pattern is present in all locations except the palm and soles [11].

Microscopic examination of skin scrapings, hair and nail for the presence of fungal elements in 10-15% KOH solution shows the following.

a. Branching mycelia crossing the epithelial cells.
b. Ectothrix or endothrix spores in hair [14].

Microscopic examination

- **Potassium hydroxide wet mount preparation:** The single most important test for the diagnosis of dermatophyte infection is direct visualization under the microscope of the branching hyphea in keratinized material [11].

- **Sampling of scale**

Skin: skin sample should be taken by scrapping with the dull edge of a scalpel. If the lesion has a definite edge, the material should be taken from the active margin, otherwise a general scrapping is adequate. The scrapings should be collected and transported in folded paper, which keeps the specimen dry, thus preventing contamination. Dermatophytes in skin scrapings may remain viable for months, and yeasts for several weeks [13].

Potassium hydroxide mount

Epithelial tissue will undergo lysis in aqueous potassium hydroxide solution. Therefore, the structural elements of fungi such as hyphae, mycelium, and spores, will stand out under high dry microscope examination.

With the tissue to be examined in place on the microscope slide, a drop or two of 10-20% aqueous potassium hydroxide solution is placed over it and cover slipped. Keratinous material dissolved by gently heating on a hot plate or waving it over a flame. Diagnosis for hyphae, mycelia, and spores will be totally impossible if the tissue is overheated or boiled and these structures are also dissolved. An inexpensive student microscope is all that is needed to identify the characteristic fungal features and to confirm a diagnosis of fungi involvement [15].

Nail plate keratin is thick and difficult to digest. The nail plate can be adequately softened by leaving the fragments along with several drops of potassium hydroxide in a watch glass covered with a petri dish for 24 hours. Hair specimens require no special preparation of digestion and can be examined immediately [11].

Examination of hair reveals three possible pattern of infection.

1. Ectothrix-small or large arthroconidia forming a sheath around the hair shaft.
2. Endothrix –arthroconidia within the hairshaft.
3. Favic-hyphae arranged in parallel with in and around the hairshaft [13].

Culture of fungus and its biochemical behaviour

It is usually not necessary to know the species of dermatophytes infecting skin in most cases because the same oral and topical agents are active against all of them.

Fungal culture is necessary for hair and nail fungal infections [10, 11].

- **Culture media for tinea:** Dermatophytes are aerobic and grow on the surface of media. The three types of culture media used most often for isolaton and identification are Dermatophyte Test medium (DTM), Mycosel agar and Sabouraud's dextrose agar. Many hospital laboratories lack the experience to interpret fungal cultures and instead send them to outside laboratories for analysis. Material to be cultured can be sent directly to a laboratory because, unlike many bacteria, fungi remain viable for days in scale and hair without being inoculated into media. Alternatively, many hospitals and individual practitioners now rely on DTM for faster but slightly less accurate results.
- **Culture media for yeast:** Yeast may be isolated on plates obtained from the hospital laboratory. Acu-Nickerson is a commercially available medium in a slant for use in the isolation and identification of Candida species [11].

Wood's light examination

Wood's lamp essentially consist of a source of ultraviolet light which is filtered by wood's glass consist of barium silicate containing about 9% nickel oxide and transmits wavelengths above 365 nm [12].

Light rays with a wave length above 365nm are produced when ultraviolet light is projected through a woods filter. Hair, but not the skin of the scalp, fluoresces with a blue green color if infected with Microsporum canis or Microsporum audouinii. The rare Trichophyton schoenleinii produces a paler green fluorescence of infected hair, no other dermatophytes that infect hair produce fluorescence. Fungal infections of the skin do not fluorescence. Erythrasma, a non inflammatory, pale brown, scaly eruptions of the toe webs, groin, and axillae caused by the bacteria Cornybacterium minutissimum, shows a brilliant coral-red flourescence with the wood's light. Wood's light examination should be performed in a dark room with a high intensity instrument. The fluorescence of hair may be caused by tryptophan metabolites [11].

Animal pathogenicity test [14].

Biopsy

a) PAS –Periodic-Acid Schiff Stain shows red hyphae
b) Methenamine silver stain shows black hyphea [14].

Cell surface cytology: microscopic examination with cellotape adhesive method [14].

Skin test-Trichophyton test shows specific allergy to the fungus by the host and indicates immunological status of the patient [14].

Diet and prophylactic measures

Spicy food should be avoided [30].
Avoidence of heat, moisture and maceration.
Intertriginous areas be dried thoroughly after birth.
Regular use of talcum or antifungal powder.
Foot wear should fit well and be non-occlusive.
Hyperhidrotic patients should wear cotton socks and avoid wool or synthetic fibres.
Clothings and towels should be changed frequently [14].

Therapeutic approach of Qooba in regards to unani aspect

The four humours (Akhlate-Arba'a) lay the foundation of health and disease. According to various classical text of Unani system of Medicine any imbalance in the arrangement of these four humours leads to the occurrence of Qooba.
Most Probably called as Qooba saudavi, Qooba damvi, Qooba balghami, Qooba safrawi with respect to the involvement of khilt. Hence, firstly we have to find out that specific khilt which causes Qooba with the help of parameters set by Unani physicians [30].
The famous physician of Unani system of medicine regarding to treatment described as: Qooba is managed by *Tanqiya-E-Badan* (removal of harmful material from the body) just as munzij and mushil treatment along with management through local application [16, 17, 18, 19, 20].
Different types of munzij or mushil described in the management part of qooba are chosen after clinical examination of Qooba according to involving khilt. Ins majority of cases khilte sauda, dearanged sauda is the major factor responsible in the causation of qooba as mentioned in classics of Unani literature and possibly need to get rid out this dearranged humour from the body [19, 21, 22, 23, 24].

The unani physician mentioned some basic principles of treatment which are described as under

1. Excretion of Fasid Akhlat (deranged humours)

The cause of disease is supposed to be Fasid Khilt (deranged humour), this may be sauda, balgham or blood. But majority of the eminent Unani physicians are in support that it is due to excess in black bile (sauda) which is produced from the deranged humour and thus it must be excreted from the body to keep balance in humour of the body. Excretion can be done with the help of *Fasd*, use of purgatives like *joshand-e-aftemoon* and *maa'al jabn* [18, 22, 23, 20, 25].

- Fasd (Venesection/phlebotomy): Fasd is one of the classical methods of treatment in Unani system of medicine for cleansing, evacuation and diversion of surplus &morbid humours from the body, which helps in relieving inflammatory congestion. The fasd would be done through specified veins of the body part and at specific time [26].

2. Use of blood Puryfying drugs

As a general principle in the treatment of skin disease different purifying drugs are used which causes excretion of undesirable and waste products from the blood, so in Qooba different blood purifying drugs are used in its treatment [21,20,25] They are reported to be effective without any adverse effects reaction.
The drugs given below are considered with blood puryfuing actions:

- **Murakkab drugs (formulation):** Sharbte Unnab, Sharbate Musaffi, Majoone Ushba, Neem Capsule, Arqe Shaetra, some of these formulations Clinical trials have been conducted and some formulations have been experierced personally in OPD by us. They all have shown very effective results.
- **Single drugs:** Charaeta, shaetra, unnab, giloneem, sinkona, sarphooka, gule mundii, gandhak, barge neem, barge hina, neelofer etc [33].

Management through local application

Besides oral use of drugs, Unani physicians have given great emphasis on the local treatment in the form of *Zamaad*, *Tila*, *and Ointment.*
If the disease is acute, superficial and localized for this local application is usually enough, e.g.,
Rogan-e-gandum, roghan-e-alsi, roghan-e-badam talkh, roghan-e-narjil, butter and ghee. Wax mixed with kateera and sibr can also be used as *Tila* [27, 17, 22, 28].
If the disease is at a stage where it has penetrated beyond the skin into the musles, then reatively more potent drugs like ushq mixed with vinegar should be applied after leeching [22, 28].
If the disease is chronic and situated in deeper tissues, then the management is started with the removal of morbid saudavi matters from the body by *Fasd* (*venesection*) *and Ishal* (*purgation)* using of decoction of *Aftemoon* and *Maul Jubn.*
For local application very potent drugs which are *Haad and Muhammir* such as *Hartal and Khardal*, are used until fresh bleeding occurs. After this, healing is facilitated by the use of appropriate drugs [23, 25, 29].
Hijamat Bil Shurt (Wet Cupping) over the lesion and *Hammam* are also indicated in/at this stage [27].

Benefits of Hammam In Qooba

- Hammam – Hammam is helpful to open the pores as well as madda turns into lateef form and the ratoobat of water could be helpful in tahleel of akhlat [30].

Local application

- Marham gulabi [32].
- Saresham Mahi 4 Parts + Kundur 2 parts both ingredients are mixed with sirka then apply on the lesions of Qooba [17].
- Mazu + Kateera (each of equal quantity) mixed with sirka then apply on the area of Qooba [17].
- Jalenoos: wet Rotti mixes with water of salt and then apply it on the lesions of Qooba [30].
- Rufas: Mom + Honey + Suddab, local application are beneficial on lesions of Superficial Qooba [30].
- Gandhak + seemab + afyun + kafoor (each 3 masha) + alum + suhaga (each 6 masha) pulverize into fine powder and make paste with ghee. This paste for local application on Qooba [31].
- Suhaga + katsafed + tukhmepanwadh + gandhak (each3masha) + raskapoor (2 surkh) + murdarsung (5 tola) pulverize into fine powder, make paste with ghee [31].

When Qooba found on face: If Qooba is in acute form then Roghan Gandham and fruit of Jangli Khubbaji will be helpful in improvement of Qooba.

- Old Qooba- Qooba existed for a long time then in this condition Oil of Sharbeen Darakht + babul resin mixes with sirka. Apply it on Qooba [30].
- Kundur + gandhak + aloe vera + alum + babul resin (Each 7 gram) mix with the sirka and then put it on the Qooba. In case of children Aloo Bukhara resin is suitable [30].
- New as well as old Qooba are usually improves with local application of Roghan Gandham [30].

- Unani physician said that at the age of children, ratoobat is more due to excessive ratoobat in Children, Qooba gets improved only by local application of early morning saliva before breakfast, Mazu and Haleela Zard put into sirka. These local applications are used to treat superficial Qooba in children [30].

As above in the literature part of aetiology, it was described that Qooba presents in two ways I.E In Ratab form and Yabis form

Qooba in which ratoobat founds more, Drugs which causes dryness are better to use in this condition(Dry drugs usually used in this condition)and If ratoobat is less –rubbing with both bakeela flour and Jau flour will be beneficial.

- Joshanda chukander + maide ki bhoosi+tukhme muli, turmus+ chane ka ata wa nashasta+ kham kharbuza will be helpful to treat this form of Qooba.
- Dissolve wheat flour in the water of millet and then put it on Qooba ratab [30].

If Qooba is in yabis form, for this condition, avoid the excessive use of dry drugs or used in very less quantity [30].

- Khurbuk siya ($1^{1}/_{2}$ tola) + turmus flour + sartan Saukhta + Nutrun (each of $^{3}1/_{2}$ masha) crush all the drugs, filter it with sieve and make the paste form and put it on dry dad [17].

Discussion

Nowadays, Qooba becomes very common disease not only because of spreading nature of disease but also emerging resistance. Long duration of treatment create the problem for patient that they don't want to continue it and quit it after getting some relief, although disease does not improve properly. Taking inadequate treatment as well as due to desire of instant relief they swap up to many doctors, these are some reasons for more existence of the Qooba among individuals.

Besides this, powerful strain of fungus has come and this has made the treatment difficult. This is other topic to discuss; here we are not discussing it more. Despite all the problems, patients can get relief from the Qooba ultimately with the use of Unani Medicine with some precautions which have to be followed by patient.

Conclusion

Drugs from natural sources are used for treating various skin problems since the ancient times. In Unani pathy many drugs are mentioned in the treatment part of Qooba. (The disease treated accordingly what being the etiology) the formulations which are described in this paper, studies are conducted on most of them. They have shown very effective without any reaction. Although if we access the modern treatment of Qooba, we getting benefit along with it side effects. One concerns is there, The treatment of Qooba is a long term treatment. So If we access the treatment for long time we have to face its adverse reaction too. So why not we choose that treatment which has no side effects inspite of being long duration. Unani treatment being use for long time, has no side effects and fetch the attention of masses towards Unani Treatment.

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References

1. Anathanarayanan R, Paniker CKJ. Textbook of Microbiology. 4th Ed. Orient Longman Limited, Calicut, 1992, 593.
2. Khan MA, Akseer Azam. Kanpur: Matba Nizami. 1289; 4(AH):436-39.
3. Khan MA. Ramooze Azam. Delhi: Delhi printing Press, 1335; 2(AH):374-76.
4. Jamaluddin Aqsaraee, Munshi Nawal Kishore. YNM, 1:478-79.
5. Hijazi MR, Kanz-ul-IIaj. Lahore: S.K Basheer & Sons Pub.; YNM, 479-80.
6. IBN Sina AA, Al Qanoon fit Tib. 1stedi.Beirut: Darul Kutub Al IImiyah. 1999; 4:415-417.
7. Baghdadi IH. Kitabul Mukhtarat fit Tib (Urdu translation by CCRUM) New Delhi: Ministery of Health and Family Welfare Govt. of India. 2007; 4:120-21.
8. Weedon D. Skin Pathology. 2nd edition. Elsevier science limited, 2002, 660-662.
9. Noble WC. The Skin Microflora and Microbal skin Diseases. Cambridge University Press. 1993; 232-34(239):244-45.
10. Freedberg Irvin M *et al*. Fitzpatrick's Dermatologyin general Medicine. 5thedi. McGraw Hill. 1999; 2:2327, 2339, 2327-53.
11. Habif TP. Clinical Dermatology, A colour Guide to Diagnose and Therapy. 4 edi. Mosby London New York; 2004, 409, 413, 426, 417, 420, 227, 409, 417, 434, 410-412, 426.
12. Valia RG, Valia AR. IADVL, Text Book and Atlas of Dermatology. 2nd edi. Mumbai: Bhalani Publishing House. 2001; 1:215, 216, 217, 218, 222, 223, 224, 228, 229, 230, 231, 232, 225, 226, 227.
13. Khan Yasmeen. Text Book of Dermatology.1st edition.Vol-1.Royal Falcon Enterprises. 2007; 161-64, 165, 167, 168, 169, 180-81.
14. Haldar B. Diagnosis and Treatment of Skin Disorders. Culcutta: Skin Institute Publication, 1988; 81, 82, 85, 76, 77.
15. MacCarthy Daniel J *et al*. Podiatric Dermatology. Williams & Wilkins, 1986, 49.
16. Tabri AM. Moalejat Buqratiya, (Urdu translation by CCRUM) New Delhi: Ministery of health and Family welfare Govt. of India. 1997; 2:211-213.
17. Jurjani Zakheera Khwarzam Shahi I. (urdu translation by Khan HH). New Delhi: Idara Kitabus Shifa. 2010; 7:24-26.
18. Kabeeruddin Mohd, Tarjuma-e-Kabir. (Urdu translation of Sharah-e-Asbab wa Alamat). 1st ed. New Delhi: Ejaz pub. House, Daryaganj, 2007, 285-286.
19. Ayyub MM, Tarjuma-e-Aqsarai. (Sharah-e-Maujiz). Lucknow: Matba'a Munshi Nawal Kishore; YNM, 563.
20. Chughtai GM, Misbah-ul-Hikmat. Mochi Darwaza Pub. Lahore, 1939, 1161.
21. Khan Ajmal Hazique. New Delhi: Between Sadi Boiok Depot, N.S. Marg; YNM, 546-47.
22. Razi AMBZ, Kitabul Mansoori. (Urdu translation by CCRUM). New Delhi: Ministery of health and Family welfare, Govt. of India, 1991, 205-206.
23. AlQamri Abul Mansoorul-Hasan, Ghina Mina'a Tarjuma Minhaj-ul-Ilaj. Lucknow: Dawakhana Madan-ul-Advia, 1930, 392.
24. Chanpuri Kausar, Mijiz-ul-Qanoon. 1sted. New Delhi: Taraqqi-e-Urdu Bureau, 1984, 457.

25. Aleem S, Amraz-e-Jild, Aligarh. Saba Publishers, 2002, 117-119.
26. Baig MG, Aleemuddin Qamri M *et al*. Concept and Management of Waja-ul- Mafasil (Arthritis) in Greeco Arabic Medicine-An Overview. Int. J Cur Res Rev. 2014; 6:20. Retrived on 10/1/2019
27. Razi AMBZ, Kitabul Fakhir Fit Tib. (Arabic Translation by CCRUM), New Delhi: Ministery of health and Family welfare Govt. of India. 2005; 1:40-42.
28. Kirmani Sharah Asbab N. (Urdu translation by Kabiruddin M). 1st ed. New Delhi: Idara Kitabus Shifa. 2009; 3:240-42.
29. Jeelani Makhzan-e-Hikmat G. New Delhi: Aijaz Publishing House. 1996; 2:722-728.
30. Razi AMBZ, Kitabul Fakhir Fit Tib. (Urdu translation by CCRUM), New Delhi: Ministery of health and Family welfare Govt. of India. 2008; 1:27-30.
31. Kabeeruddin M, Bayaze Kabeer. New Delhi: Idara Kitab-ul- Shifa, 214:238-39.
32. Mannan HA, Ammar NH. Mamulate Matab (Ajmal Khan Tbbiya College Hospital Aligarh). Aligarh: letho colour prints achaltal, 1999, 36.
33. Bari A, Jame-ul-Advia. New Delhi: Faisal brothers publication; YNM, 42.