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EFFECT OF UNANI PHARMACOPOEIAL FORMULATIONS IN THE MANAGEMENT OF ECZEMA (*NAR FARSI*): A CASE REPORT

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ABSTRACT
Eczema is a type of dermatitis in which inflammation of the epidermis occurs. Eczema does not have a known specific etiology. Despite the fact that it is activated by the immune system and is related to allergic reactions, it is not the same as other allergic reactions. According to the Unani system of medicine, eczema occurs due to *akkal* (corrosive), *haar* (hot), and *lazeh madda* that may spread with *dam* (sanguineous matter) or *balgham* (phlegmatic matter). It may also be produced when hot (bilious and sanguineous) humor is mixed with dry humor (*saudawi madda*). It may also occur when *haad akhlat* combines with *khilt-e-raqeeq* (*safra*), and also due to the increased *hiddat* in *khilt-e-dam*. Eczema clinically manifests as pruritus, erythema, edema, papules, vesicles, scaling, and lichenification. The feature that predominates depends on the stage of the disease, that is acute eczema is exudative, while chronic eczema is dry, scaly, and often lichenified and it can affect any person irrespective of age and sex. In this case report, a 54-year-old female, presented with complaints of dryness, itching, burning sensations, scaly lesions, and darkening of the skin on palmer and dorsal surfaces of both hands and both feet treated effectively with Unani medicine. Following one month of regular treatment, significant changes were observed in the skin lesion and in the patient's symptoms. Post-treatment follow-up after 1 month did not show any signs of recurrences of lesions. Unani medicines provide an effective approach to managing eczema.

KEYWORDS: Eczema, *Nar Farsi*, Unani medicine.

INTRODUCTION
Eczema (*Nar Farsi*) is the reaction pattern of the skin to multiple agents. This inflammatory response of the skin affects 2-10% of the world's population, and the prevalence varies according to its different types.[1,2] In Unani terminology, the *Nar farsi* either refers to the place Faras (Iran/ Persia), where it was most frequently observed, or to the native of Faras who treated eczema for the very first time. Some Physicians also believe that, since there is a severe burning sensation that feels like the affected area is burning on fire, the disease is given the name *Nar farsi*.[3] Eczema clinically manifests as pruritus, erythema, edema, papules, vesicles, scaling, and lichenification. The feature that predominates depends on the stage of the disease, that is acute eczema is exudative, while chronic eczema is dry, scaly, and often lichenified and it can affect any person irrespective of age and sex.[4,5] Histologically, the hallmark of eczema is spongiosis, this occurs due to intercellular edema, which gives the epidermis a sponge-like appearance but the exact histological appearance depends on the stage of the disease. In the chronic stage, the lesion shows hyperkeratosis and acanthosis.[4,5,6] Despite the fact that eczema can have a variety of underlying causes, several common pathways are involved in its pathogenesis. Activated keratinocytes are one characteristic. It metabolizes rapidly, which is directly related to the increased basal cell proliferation and release of several cytokines. The epidermis contains enormous amounts of interlukin 1 (IL-1). Anytime there is damage to the epidermis, interleukins are released. They are released whenever the epidermis is damaged (e.g. by trauma, chemical irritation, and a type IV cell-mediated immune response). IL-8 serves as a chemotactic factor for neutrophils. The epidermis's neutrophil infiltration (exocytosis) is characteristic of most eczemas. γ-Interferon induces lymphocytes to continue the perivascular lymphocytic infiltrate, which is frequently seen in all types of eczema. Hyperproliferation results in thickening (acanthosis) and scaling of the epidermis. Oedema, blistering, weeping, and especially itching are brought on by cytokines.[5,7] According to the Unani system of medicine, eczema occurs due to *akkal* (corrosive), *haar* (hot), and *lazeh madda* that may spread with *dam* (sanguineous matter) or *balgham* (phlegmatic matter). It may also be produced when hot (bilious and

sanguineous) humor is mixed with dry humor (*saudawi madda*). It may also occur when *haad akhlat* combines with *khilt-e-raqeeq* (*safra*), and also due to the increased *hiddat* in *khilt-e-dam*.[8,9,10]

MATERIALS AND METHODS

CASE REPORT

A 54 years old married female patient came to the OPD of Amraz-e-Jild wa Tazeeniyat, Ajmal Khan Tibbiya College and Hospital, AMU, Aligarh. UP, with complaints of dryness, itching, burning sensations, scaly lesions, and darkening of the skin on palmer and dorsal surfaces of both hands and both feet for 2 years. There was no history of Diabetes Mellitus, Hypertension, Tuberculosis, Bronchial asthma, or any other chronic disease. The patient was a teacher by profession and also performs daily household chores including cleaning, washing, dusting, and dish-washing. A history of contact with detergent powder and soap was present. There was no family history of Diabetes Mellitus, hypertension, tuberculosis, or any relevant history of allergic diseases. The patient earlier consulted for the same in her locality clinic but did not get any remarkable improvement. The patient is not taking any medicine for any other illness. On examination of the presented features, the lesions were more scaly, pigmented, and the skin was thickened. Due to repeated scratching and rubbing, skin markings (lichenification) were present. Multiple fissures on the palmoplantar surface of the hands and foot were also present. After a proper clinical and physical examination, signs, and symptoms, history of contact, and personal and family history of the patient, the diagnosis of chronic eczema (*Nar Farsi*) was made. Before starting the treatment, written consent was obtained from the patient. She was well-informed regarding the Unani medicine and also informed if the treatment will be effective, the case might be published in the journal without revealing the patient's identity. The photography of the lesions before the commencement of the treatment and after completion of treatment was done and then the photographs before and after treatment were compared to assess the efficacy of compound formulations.

Intervention and Follow-up

The treatment was started on the principles of the classical Unani regime. The patient was given Unani treatment both oral as well as topical, she was advised to take 7 g of *Majoon Ushba* (Table 1), prepared by Dawakhana Tibbiya College, AMU, Aligarh, and is based on the composition described in *Biyaz-e-Kabir* Volume-2 and 2 tablets of *Habb-e-Musaffi Khoon* (Table 2), twice a day with plain water after food. (*Habb-e-Musaffi Khoon* is prepared by Hamdard Laboratories, Delhi, and is based on the composition described in the National Formulary of Unani Medicine, Part-V). She was advised to apply *Marham-e-Hina* (Table 3), on the affected part twice a day (*Marham-e-Hina* was prepared by Dawakhana Tibbiya College, AMU, Aligarh as per the description given in the National Formulary of Unani Medicine, part-VI.

Table 1: Composition of *Majoon Ushba*.

Contents	Quantity
Ushba (*Smilax ornate*)	40 mg
Bisfaij Fistaqi (*Polypodium vulgare*)	40 mg
Aftimoon Vilayati (*Cuscuta europea*)	40 mg
Barg-e-Gaozaban (*Borago officinalis*)	40 mg
Kabab Chini (*Piper cubeba*)	40 mg
Daar Chini (*Cinnamomum zeylanicum*)	40 mg
Gul-e-Surkh (*Rosa damascene*)	60 mg
Chob Chini (*Smilax china*)	60 mg
Sandal Sufaid (*Santalum album*)	60 mg
Sandal Surkh (*Pterocarpus santalinus*)	60 mg
Sana-e-Makki (*Cassia augustifolia*)	80 mg
Post halela zard (*Terminalia chebula*)	20 mg
Sumbul-ut-teeb (*Nardostochys jatamansi*)	15 mg
Halela Siyah (*Terminalia chebula*)	10 mg
Asal or qand safed (*sugar*)	2 kg

Table 2. Composition of *Habb-e-Musaffi-e-Khoon*.

Contents	Quantity
Post-e-Halela zard (*Terminalia chebula*)	3 g
Sarphooka (*Tephrosia purpurea*)	3 g
Gul-e-Surkh (*Rosa damascene*)	3 g
Barg-e-Shahtara (*Fumaria parviflora*)	3 g
Tukhm-e-Kishneez(*Coriandrum sativum*)	3 g
Barg-e-Hina (*Lawsonia inermis*)	2 g
Dhamaya	3 g
Sandal Surkh (*Pterocarpus santalinus*)	3 g
Sandal Safaid (*Santalum album*)	3 g
Brahmdandi (*Tricholepsis augustifolia*)	3 g
Neel Kanthi (*Gentiana kurroo*)	3 g
Zeera Safaid (*Cuminum cyminum*)	1 g
Filfil Siyah (*Piper nigrum*)	1 g
Gul-e-Kachnal (*Bauhinia racemosa*)	1 g
Barg-e-Bakayin (*Melia azedarach*)	5 *adad*
Barg-e-Neem (*Azadirachta indica*)	5 *adad*

Table 3: Composition of *Marham-e-Hina*.

Contents	Quantity
Roghan-e-Hina (*Lawsonia inermis*)	5.70 g
Kafoor Khalis (*Cinnamomum camphora*)	0.50 g
Sat-e-Pudina (*Mentha arvemsis*)	0.25 g
Sat-e-Ajwain (*Trachyspermum ammi*)	0.25 g
Mom Khalis (Bee's wax)	2.25 g
Vaseline *Safaid* (White vaseline)	q. s

RESULTS

After 28 days of treatment, the efficacy of Unani compound formulations was assessed, and it was found to be quite effective in the management of eczema (*Nar Farsi*). There was a marked improvement in dryness, itching, scaling, and burning sensations, with the complete disappearance of pigmentation in the affected area. The patient was further under observation for one month and it was observed that there were no relapses or flare-ups of the disease.

Figure 1: Before treatment.

Figure 2: After treatment.

DISCUSSION

It was observed that the Unani regimen comprising three formulations *Majoon Ushba, Habb-e-Musaffi Khoon,* and *Marham-e-Hina* were effective and safe in the management of eczema (*Nar Farsi*). The efficacy of these formulations might be explained in terms of their pharmacological actions which is mainly due to the presence of *musaffi-e-dam* (blood purifier), *muhallil-e-waram* (anti-inflammatory), *musakkin* (analgesic), *mudammil-e-qurooh* (wound healing), *mulattiff* (demulcent), *daf-e-hikka* (anti-pruritic) *qatil-e-jaraseem* (antibacterial) properties.

Majoon Ushba and *Habb-e-Musaffi Khoon* have contents like *ushba*, *shahtara*, *sarphooka*, *gul-e-surkh*, *bisfaij*, *chob chini*, *sandal safed*, *sandal surkh*, and *barg-e-neem*. They all possess *musaffi-e-dam* (blood purifier) action and are extensively used in various skin disorders. *Ushba* acted as *muhallil* and *mudir* along with its *musaffi-e-dam* action. *Shahtara* removes *mirrah safra* and *sauda-e-muhtariqa* through diuresis and is useful to normalize the heat of the blood. *Barg-e-Hina*, *Barg-e-Gozaban*, and *Chob chini* acted as *mulattif* (demulcent), *musakkin* (analgesic) *mujaffif* (desiccant), and *qabiz* (astringent). *Barg-e-Neem* acted as *daf-e-ta'ffun* (antiseptic), *moaddil-e-dam*, *musakkin* (analgesic), *muhallil* (anti-inflammatory). *Aftimoon*, *Halela*, *Balela*, *Chobchini*, and *Bisfaij*, all acted as *mushil-e-sauda* (black bile-specific purgative). *Sana-e-makki* acted as *qatil-e-kiram*. A study by Ahmad *et al* demonstrated the various extracts of *Sana-e-makki* (*Cassia augustifolia*) that show antioxidant and anticancer antimicrobial properties.[11] *Gul-e-Kachnal* (*Bauhinia racemose*) possesses *muhallil* (anti-inflammatory), *musakkin* (analgesic), *qatil-e-jaraseem* (antimicrobial), *mundqmil-e-qurooh* (wound healer), antioxidant, and anticancer activities.[18] *Sandal Safaid*, *Sandal Surkh*, and *Gul-e-Surkh* acted as *muffarreh* (exhilarant), and *mubarrid* (coolant). This is in accordance with the properties described by Ibn-e-Sina and Najmul Ghani.[8,14] Challa et al. revealed through their study that the methanolic extract of *Sandal Surkh* (*Pterocarpus santalinus*) possesses the highest anti-oxidant and antimicrobial activity which inhibits bacteria such as *E. coli*, *S. aureus*, and *Pseudomonas*, etc.[16] *Sandal safed* (*Santalum album*) has *muhallil* (anti-inflammatory), *qatil-e-jaraseem* (antimicrobial), *mundamil-e-qurooh* (wound healer) *Daf-e-afoonat* (antiseptic) anti-mitotic, anti-cancerous, anti-ulcer activities.[17] Hajhashemi *et al* demonstrated that the hydroalcoholic extract of *Rosa damascena* (*Gul-e-Surkh*) has a potent analgesic (*musakkin*) and anti-inflammatory (*muhallil*) activity in a rat model.[12] *Bakayin* acted as *Qatil-e-jaraseem* (antimicrobial), *Dafa-e-afoonat* (antiseptic), *mundamil-e-qurooh* (wound healing agent).[13] The improvement may also be due to the *muhallil* (anti-inflammatory) and *jali* (detergent) effect of *Sana-e-makki*. *Marham-e-Hina* contains *Roghan-e-Hina*, which acted as *muhallil* (anti-inflammatory), *qatil-e-jaraseem* (antimicrobial). Keshavarz *et al* carried out a study on *Barg-e-Hina* which stated that the natural *Hina* of Iran is more effective than conventional steroids (hydrocortisone) in curing the lesions of Diaper Dermatitis in infants.[15] *Kafoor* acted as *daf-e-afoonat* (antiseptic), *musakkin* (analgesic), *habis-ud-dam* (hemostatic), and coolant. *Kafoor* showed *muhallil* (anti-inflammatory), *Daf-e-ta'ffun* (antiseptic), *musakkin* (analgesic), and diaphoretic properties on external use.[13] In the book *Khazainul Advia*, Najmul Ghani has mentioned that *Kafoor* possesses many pharmacological activities like *daf-e-hikka* (antipruritic), *muhallil* (anti-inflammatory), anti-allergic, and a good cooling agent effective in pruritus and burning sensation.[14] *Mom* (beeswax) acted as *muhallil-e-waram* (anti-inflammatory), *musakkin* (analgesic), *mundamil-e-qurooh* (wound healer), *mujaffif* (desiccative) and *daf-e-hikka* (anti-pruritic) properties. These properties of *Mom* are because of the presence of oleate esters, palmitoleate, triacontanylpalmitateto cerotic acid, and palmitate.[19] *Sat-e-pudina* and *Sat-e-ajwain* provide a cooling effect in the burning and dryness of eczematous lesions.

CONCLUSION

The above three formulations acted as *musaffi-e-dam* (blood purifier), *muhallil* (anti-inflammatory), *musakkin* (analgesic), *mundamil* (wound healing), *daf-e-afoonat* (antiseptic), *murattib* (local emollient) *qatil-e-jaraseem* (antimicrobial), *moadill-e-safra*, and *mushil-e-sauda*, which is the mainstay of the treatment of eczema. So it can be concluded from the above discussion that the Unani pharmacopoeial formulations used in this case report, are quite effective in the management of eczema (*Nar Farsi*). In order to assess and validate the efficacy and safety of the employed medications, further clinical trials on a large sample size should be conducted.

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