

## RARE PRESENTATION OF ERYTHRODERMIC PSORIASIS (DA-US SADAF) – A CASE STUDY

**Benish Bashir<sup>1\*</sup>, M. A. Quamri<sup>2</sup>, Mohd. Adnan Ansari<sup>3</sup> and Yusra Qureshi<sup>4</sup>**

<sup>1,3</sup>PG Scholar, Department of Amraz Jild Wa Tazeeniyat, National Institute of Unani Medicine Bengaluru.

<sup>2</sup>HOD & Professor, Department of Amraz Jild Wa Tazeeniyat, National Institute of Unani Medicine Bengaluru.

<sup>4</sup>PG Scholar, Department of Amraz Qabalat wa Niswan, National Institute of Unani Medicine Bengaluru.



**\*Corresponding Author: Benish Bashir**

PG Scholar, Department of Amraz Jild Wa Tazeeniyat, National Institute of Unani Medicine Bengaluru.

Article Received on 19/08/2024

Article Revised on 01/09/2024

Article Accepted on 20/09/2024

### ABSTRACT

Erythrodermic Psoriasis (EP) is an aggressive and inflammatory form, though it is uncommon among patients. The main symptom is a peeling rash on the body's whole surface. The rash itches and burns and spreads very rapidly. This type of psoriasis affects more than 75% of the surface of the body with inflammation and with/without exfoliation.<sup>[1]</sup> This paper presents the case of a 47-year-old married male patient, who came to the outpatient department (OPD) of National Institute of Unani Medicine (NIUM) Bengaluru. **Clinical presentation:** His chief complaints were widespread erythematous plaques with itching & burning sensation all over his lower limbs & upper limbs since two days, which then progressed to all over his body including the scalp & ears as well. On examination, erythematous plaques with desquamation covering >90% of his body surface involving scalp, palmoplantar surfaces & genitals were seen. Moreover, lichenification was seen over both legs with pitting in his right middle finger nail. The lesions started peeling and crusting gradually, and the patient also had a history of on and off fever and body pains for the last month. The patient was febrile on admission with severe distress and had signs of moderate dehydration associated with severe malnutrition. Generalized skin redness and desquamation were seen over his entire body surface except on his face. There was no history of consanguinity but there is positive family history for Psoriasis. The patient was diagnosed with Plaque Psoriasis 26 years ago and had been treated with topical corticosteroids and moisturizing creams including some homeopathic drugs as well. His condition exacerbated after withdrawal from steroids & application of a plant juice viz, Thespesia populnea yellow juice, the lesions worsened during winters. **Diagnosis:** The patient was diagnosed clinically as Erythrodermic Psoriasis resembled to Da-us-Sadaf in the Unani system of medicine. **Interventions:** The patient was treated with Joshanda Munzij Sauda (decoction) and Majoon Ushba (compound formulation) orally alongside with Habb e Suranjan (orally) and Marham Asfedaj + Roghan e Hindi for local application all over body except face. **Outcome:** Assessment of efficacy was done by PASI Score before and after treatment. **Conclusion:** This Unani formulation effectively improves pruritus, scaling, lichenification and ulceration in Erythrodermic Psoriasis and may be considered for complimentary management of it.

**KEYWORDS:** Erythrodermic psoriasis, Da-us Sadaf, Joshanda Munjiz Sauda, Lichenification, Unani.

### INTRODUCTION

Erythrodermic Psoriasis (EP) is an uncommon but severe type of Psoriasis. Its prevalence among the patients with psoriasis is about 1–2.25%.<sup>[1]</sup> The current therapy available for the management of EP, including medium potency topical corticosteroids and moisturizers, shows unsatisfactory outcomes, hence, its management remains as a challenge for physicians. There are multiple documented and emerging causes of EP. EP also generally occurs due to microbial infections. Various drugs like antimalarial agents, trimethoprim, lithium and sulfamethoxazole, and environmental factors such as psychological and metabolic factors may also play a considerable role.<sup>[2]</sup> The characteristics of the disease are

erythema, edema, desquamation along with several symptoms such as tachycardia, fatigue, malaise, fever, chills, dehydration, electrolyte imbalance, lymphadenopathy, arthralgia, myalgia, insomnia, sweat, diarrhoea, constipation, weight changes, etc. EP has life-threatening complications such as hemodynamic, metabolic, immunologic, infectious, and thermoregulatory disturbances.<sup>[3]</sup>

According to the Unani System of Medicine, "Da-us Sadaf" is formed from the Arabic terms "Daun" and "Sadaf," which mean "disease" and "oyster shell," respectively. Famous Unani physicians Razi, Majoosi, Ahmad Bin Mohd Tabari, Ibn-e-Zohr, Akbar Arzani, and

Azam Khan viewed it in the context of Taqashur-e-Jild and Qashaf-e-Jild because of dryness of the skin and scale formation, which clinically resembles psoriasis (Da'u-us-Sadaf). According to Ali Ibn-e-Abbas Al-Majoosi, Tabiyat expels the Khilt-e Ghaleez from internal organs to the skin, causing dryness and itching, but the skin is unable to eliminate the Khilt-e-Ghaleez, resulting in the accumulation of sauda in the skin and the production of Taqashur-e-Jild. Munzijate Sauda (Melancholic concoctives), Mushilate Sauda (Melancholic purgatives), topical application of Jali (detergent), Murakhi (emollient), Murattib and Mohallil (anti inflammatory) advia are useful in mitigating with the disease.<sup>[4-14]</sup>

### CASE REPORT

A 47 year old married male patient came to NIUM OPD, Bengaluru with the chief complaints of widespread erythematous plaques with itching & burning sensation all over his body including the scalp & ears since two days.

### History of present illness

According to the statement of the patient, he developed widespread redness affecting >90% of his body surface area in association with severe itching, burning sensation & peeling of skin since two days. The patient also complained of lethargy & dryness of mouth. Moreover, sun exposure causes intense burning sensation.

### History of past illness

- Drug history: Patient reportedly underwent allopathic treatment (Methotrexate 5mg BD once a week) for 1 year at the initial stage of his disease 26 years ago. He also took some Ayurvedic medications on & off from 2000-2023 (Aragvadhadi Kwatham tablets, Kaisora gulqulu, Vatika, Ayyappalakera tailrum & Keshyam oil).
- Positive family history for Psoriasis.
- K/C/O Plaque Psoriasis since 26 years
- N/H/O Diabetes, HTN or any other comorbidities.

### General physical examination

- Built – average
- Nutrition- average
- Height 168 cm
- Weight 65 Kg
- Temperature 98.7°F (axillary).
- Pulse rate – 80 beats/min.
- Blood pressure (systolic and diastolic) 110/70 mm of Hg.
- Pallor - absent
- Swelling - absent
- Clubbing - absent
- Cyanosis - absent
- Icterus - absent
- Lymphadenopathy - absent
- Oral examination mucosal surfaces: no lesion in oral cavity, buccal surface, palate and tongue

### Systemic examination

- Dermatological examination

### Inspection

- Appearance- anxious
- Site of lesion: all over body including scalp & ears
- Number of lesions: multiple erythematous plaques
- Size of lesion: variable
- Morphology of lesion: plaque type.
- Colour of lesion: reddish-brown plaques with erythematous base overlapped with mica-like scales.
- Distribution: Symmetrical

### Palpation

- Moisture- Dryness
- Temperature – Warm to touch
- Texture – Rough
- Central nervous system – patient was well oriented to person, time and place
- Cardiovascular system– S1, S2 are audible with no murmur or added sounds
- Respiratory system – bilaterally chest symmetrical with no added sounds.
- Digestive system- bulky abdomen with centrally placed umbilicus and no tenderness was present.

### Assessment of Mizaj (temperament)

- Colour of lesion: reddish to brown
- Dryness of lesion: severe with fissures.
- Duration of lesion: on & off since 26 years.
- On the basis of above parameters this is categorised as Saudavi disease due to morbid melancholic humour, having Barid Yabis temperament

### Investigations

- Hb- 13.6 gm/dl
- Total WBC- 10700/Cmm
- ESR- 16 mm/hr
- Sr. creatinine- 0.9 mg/dl
- Uric acid- 8.0 mg/dl
- SGOT- 25 U/L
- SGPT-38 U/L
- Alkaline Phosphatase- 118 IU/L
- Total Bilirubin- 0.82 MG/DL
- ASLO- Negative
- CRP- Positive

### CRITERIA OF ASSESSMENT

#### Grading – PASI (Psoriasis Area Severity Index)

**Score:** - Within each area, the severity is estimated by three clinical sings: Severity parameters are measured on the scale of 0 to 4, from none to maximum. The body is divided into four sections [head (H) (10 % of a person's skin); arms (A) (20%); trunk (T) (30%); legs (L) (40%)]. Each of this area is scored by itself, and then the four scores are combined into the final PASI. For each section, the percent of area of skin involved, is estimated and then transformed into a grade from 0 to 6.

No involved area	Grade: 0
<10% of involved area	Grade: 1
10- 29% of involved area	Grade: 2
30 – 49% of involved area	Grade: 3
50 – 69% of involved area	Grade: 4
70 – 89% of involved area	Grade: 5
90 – 100% of involved area	Grade: 6

	Before treatment	After treatment
Area involved	95% (Grade 6)	45% (Grade 3)
Erythema	Severe	Mild
Induration	Severe	Mild
Desquamation	Severe	Mild

### ORAL MEDICINE

**1. Joshanda Munzij Sauda<sup>[4]</sup>:** Aftimoon (Cuscuta reflexa full herb), haleela siyah (Terminalia chebula unripe fruit) 5 gram each in decoction form. Patient was advised to soak above medicine (10 gram) in one glass of water (200 250 ml) with 5g Gul e Surkh at night. In the

morning, he was advised to boil it till half water evaporates, filter it and drink before breakfast once daily.

**2. Majoon Ushba<sup>[5]</sup>** (compound formulation) 6 grams twice daily after food.

Its ingredients are as follows:

S.No.	Name of the drug	Botanical name with part used	Quantity
1.	Post Halela Zard	<i>Terminalia chebula</i> epicarp of half ripe fruit.	14 gm
2.	Post Halela Kabuli	<i>Terminalia chebula</i> epicarp of full ripe fruit.	17.5 gm
3.	Post Balela	<i>Terminalia belirica</i> epicarp of full ripe fruit.	17.5 gm
4.	Halela Siyah	<i>Terminalia chebula</i> unripe fruit.	17.5 gm
5.	Shahtra	<i>Fumaria officinalis</i> herb	17.5 gm
6.	Bisfaij	<i>Polypodium vulgare</i> herb	17.5 gm
7.	Turbud	<i>Operculina turpethum</i> root	17.5 gm
8.	Aftimoon	<i>Cuscuta reflexa</i> full herb	17.5 gm
9.	Amla	<i>Emblica officinalis</i> full ripe fruit.	10.5 gm
10.	Barge sana	<i>Cassia angustifolia</i> leaves	35 gm
11.	Ushba	<i>Smilax ornate</i> herb	60 gm
12.	Shahad (honey)	<i>Apis mellifera</i>	Three times of sum of all the above drugs.

**Habb e Suranjan:** 2 Tablets twice daily after food.

Sibr Saqootri	12 gm	Aloe barbadensis
Post Halela Zard	12 gm	Terminalia chebula
Suranjan Shireen	12 gm	Colchicum autumnale

### Local Application Intervention

**1. Marhame Asfedaj<sup>[6]</sup>** for local application mixed with Roghan e Hindi all over the body except face.

S.NO	Name of the drug	Scientific/chemical name	Quantity
1.	Mom safaid/ honey bee wax	<i>Apis mellifica</i>	2 parts
2.	Safeda	Lead Carbonate	1 part
3.	Roghane kunjad (compressed oil)	<i>Sesamum Indicum</i>	6 parts



## 2. Roghan e Hindi

Aab Barg Neem	240 gm	Azadirachta indica
Roghan Sarson	240 ml	Brassica nigra
Neela Thotha	28 gm	Copper sulphate
Murdar Sang	10 gm	Plumbi oxidum
Halela Siyah	10 gm	Terminalia chebula Retz.
Mayeen Khurd	10 gm	Tamarix gallica
Haldi	10 gm	Curcuma longa

**Note:** Standard operative procedures (SOPs) for preparation of oral and local medicinal formulations have been adopted.

### ADVERSE DRUG REACTIONS (ADRs)

Patient inadvertently applied Marham Asfedaj on his face during the treatment process which led to the adverse drug reaction on his face in the form of rashes and scaling over his bilateral cheeks and beardline which subsided upon the stoppage of the ointment. The ADRs were reported to the Pharmacovigilance section of the institute and cognised keenly.

### RESULTS

After one month of treatment, the efficacy of unani compound formulation was evaluated and found clinically significant in the management of Erythrodermic Psoriasis. The PASI score was impressive as it reduced from the initial scoring of Grade 6 to Grade 3 at the end of the treatment.

### PRE TREATMENT



### POST TREATMENT



## DISCUSSION

EP is a rare but dangerous type of psoriasis, which is noticed by erythema of the whole body with scaling; furthermore, it is associated with considerable mortality incidences.<sup>[2]</sup> Enormous loss in protein and fluids, leucocytosis, anaemia, increased C-reactive protein and erythrocyte sedimentation rate, electrolyte abnormalities, temperature irregularities, abnormal liver function are generally observed in this type of psoriasis.<sup>[1]</sup> Our results showed that the symptoms were improved significantly after 1 month of therapy. Consumption of agents with anti-inflammatory, immunomodulatory, antiulcerogenic, and antioxidant effects, could be helpful in improvement of this disease. Savitha T., et al. stated that *Cuscuta reflexa* possessed an important phyto bioactive component; lupeol which exhibits antimicrobial, anti-inflammatory, antitumor, antiprotozoal, and chemoprotective activities, and it also antagonist interleukin-4 production by using T-helper type 2 cells.<sup>[7]</sup> Dolly singh et al. found that *Terminalia chebula* has wound healing properties by acting keratinocytes and fibroblasts cells.<sup>[8]</sup> This plant also acquire multiple pharmacological and medicinal activities like antioxidant, antimicrobial, anti-inflammatory, antimutagenic, antiproliferative, cardioprotective, hepatoprotective.<sup>[9]</sup>

Azad H et al. concluded the efficacy of Majoon Ushba and Roghan e hindi in the management of psoriasis due to their antioxidant, anti-inflammatory, antimicrobial, and blood purifier properties.<sup>[10]</sup> Majoon Ushba has been used for its mohallil (anti-inflammatory), moaddile sauda, musaffi dum (purifier) properties.<sup>[8]</sup> Improvement in itching and erythema may be attributed to detergent, demulcent, antimicrobial, anti-inflammatory, moisturizing, pain sedative, and wound healing properties of alum and zinc oxide in the preparation used for local application.<sup>[10]</sup>

The present case report substantiates the effectiveness of prescribed unani formulations in the management of Daus Sadaf, which is mainly due to the blood purifier, anti inflammatory, demulcent, antibacterial, moisturizing, pain sedative, wound healing and emollient properties present in their ingredients. Haleela siyah, and Gul-e-Surkh have been mainly used for munzij and mushil action along with mulattif, mohallil, mufatteh sudad, and musaffi dum properties. Considering the therapeutic properties of the above mentioned drugs, it seems to be a suitable option for relieving symptoms in patients suffering from EP.

## CONCLUSION

This unani formulation effectively improves pruritus, pain, scaling, and lichenification in EP and may be considered for complimentary management of it. Further studies with a larger sample size, longer intervention, and follow-up has been suggested.

**Declaration of Patient Consent:** Taken before recruitment. The authors have no conflict of interest to declare.

## REFERENCES

1. Singh RS, Lee KM, Ucmak D, Brodsky M, Atanelov Z, Farahnik B, et al. Erythrodermic psoriasis: pathophysiology and current treatment perspectives. Dovepress., 2016; 6: 93-104.
2. Lee WK, Kim GW, Cho HH, Kim WJ, Mun JH, Songi M, et al. Erythrodermic Psoriasis Treated with Golimumab: A Case Report. *Ann Dermatol.*, 2015; 27(4): 446-49.
3. Ellis J, Lew J, Brahmabhatt S, Gordon S, Denunzio T. Erythrodermic Psoriasis Causing Uric Acid Crystal Nephropathy. *Case Reports in Medicine.*, 2019; 1-4.
4. Arzani M A. Qaraabaden qadri (Urdu Translation). 2nd ed. New Delhi: CCRUM, Ministry of Health and Family Welfare, 2006; 749.
5. Basra MK, Fenech R, Gatt RM, Salek MS, Finlay AY. The Dermatology Life Quality Index 1994-2007: a comprehensive review of validation data and clinical results. *Br J Dermatol.*, 2008 Nov; 159(5): 997-1035. doi: 10.1111/j.1365- 2133.2008.08832.x. Epub 2008 Sep 15. PMID: 18795920.
6. Savitha T., et al. "Review on Pharmacological and Therapeutic Potential of *Cuscuta* species". *Medicon Medical Sciences* 1.5 (2021): 18-31. Ibne Zohr AMAM, *Kitab-ut-Taiseer Fil Madavat-e-Wa-al-Tadbeer*. 1<sup>st</sup> ed, New Delhi; Urdu Translation by CCRUM; 1986.
7. Anwesa Bag, Subir Kumar Bhattacharyya, Rabi Ranjan Chattopadhyay, The development of *Terminalia chebula* Retz. (Combretaceae) in clinical research, *Asian Pacific Journal of Tropical Biomedicine*, 2013; 3(3); 244-252. [https://doi.org/10.1016/S2221-1691\(13\)60059-3](https://doi.org/10.1016/S2221-1691(13)60059-3).
8. Lone AH, Ahmad T, Naiyar AH. Clinical evaluation of efficacy of Majoon Ushba and Roghane Hindi in the management of psoriasis: A randomized single-blind, placebo-controlled study. *J Ayurveda Integr Med.*, 2011 Jan; 2(1): 26-31. doi: 10.4103/0975-9476.78188. PMID: 21731384; PMCID: PMC3121250.
9. Anonymous. The Unani Pharmacopoeia of India. Part-I, CCRUM, Ministry of Health and Family Welfare, Govt. of India, 2007; 1-2.
10. Afshan Khan Aisha Siddiqui M. A. Jafri Mohd Asif and Shahid S. Chaudhary; Review of Haleela siyah with unani perspective and modern pharmacology, *World Journal of Pharmaceutical Research*, 7(9): 1-12.