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THERAPEUTIC POTENTIAL OF CODED UNANI FORMULATIONS IN THE MANAGEMENT OF VITILIGO —A CASE STUDY AT NRIUMSD, HYDERABAD, INDIA

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Abstract

Background:

Baraş (Vitiligo) is a long-lasting skin condition characterized by milky white patches on the skin that may gradually increase and cover the entire surface of the body. In the conventional system of medicine, the success rate in the treatment of vitiligo is limited and often accompanied by adverse effect. Although few case records were documented in Unani medicine but they lack of proper quantitative assessment.

Methodology:

This case study reports the treatment outcome of a 29-year-old male patient with Vitiligo, who attended the outpatient department of NRIUMSD, Hyderabad. The VASI Scale was used at every follow-up as an assessment tool, in addition to pre and post treatment photographs, to assess and demonstrate the differences in treatment outcomes.

Result:

Pre-treatment VASI Score was 3.2. After 2 months of initiation of therapy, no significant reduction in the size of vitiligo patches was observed, with a VASI Score of 3.1. However, on the second visit, 4 months post-initiation of therapy, a noticeable reduction in patches was seen with VASI Score of 2.6. Further, improvement was observed on the third visit after 6

months of initiation of therapy, with a highly significant reduction in vitiligo patches and the VASI Score was 0.5 with 84.375% reduction confirmed by photographs.

Conclusion:

In this case, treatments with coded Unani formulation (UNIM-004 and UNIM-005) followed by sunlight exposure led to significant repigmentation and complete resolution of some vitiligo patches within six months. The progressive improvement is validating the traditional Unani approach.

Key Words: Baraş, Unani Medicine, UNIM-004,005, Vitiligo

Introduction:

Baraş (Vitiligo) is a long-lasting skin condition defined by milky white patches of skin that can grow and cover the entire surface of the body [1]. It affects around 0.5% to 2% of people globally, with some areas in India showing prevalence rates exceeding to 8% [2,3]. It has a familial incidence rate of 25 to 30% [4]. This skin condition can be psychologically challenging and is often resistant to treatment [5]. It is most commonly seen in individuals during their 2nd and 3rd decades of life [6].

According to Unani medicine, Baraş is the result of the accumulation of pathological phlegm (balgham) under the skin and the flow of phlegmatic blood to the affected region [7]. It occurs due to an excess of body coldness (Burūdat), impurities in the blood (Fasād al-Dam), and defect with Quwwat Mushabbiha (the power of resemblance), as noted by Ibn Sīnā. [8,9] Hakim Ajmal Khān characterized it as a metabolic disorder stemming from imbalances in the humours, which involve weakened Quwwat Mughayyira. Quwwat-e Mushabbiha, and Quwwat Dāfi'a in addition to an overabundance of Balgham (phlegm) [8].

Classical Unani literature provides extensive details on managing Baraş, and the treatment principles for Baraş which are based on Ilāj bi'l Tadbīr, Ilājbi'l Ghidhā', and Ilāj bil Dawā. Within the framework of Ilāj bi'l Tadbīr psychotherapy is utilized to reassure patients about the non-contagious nature of the condition and to help build their self-confidence. In Diet-therapy, diets with hot properties are advised. [9] It is recommended to steer clear of cold and moist foods, as well as fish, milk, and dairy products. In pharmacotherapy several single and compound drugs have been mentioned in unani literature in the context of the treatment of vitiligo. Based on psoralea corlyfolia, Previous in-vitro study also reported a potential

therapeutic role of coded drugs UNIM 004 and UNIM 005 in hypopigmentary disorders. [10] In the present case study a patient diagnosed with Vitiligo was treated with a combination of UNIM-004 and UNIM-005.

Diagnosis: Baraş (Vitiligo)

Individual background:

Mr. A, 29-year-old male patient from Pune, Maharashtra, India, presented to the outpatient department (OPD) of NRIUMSD, Hyderabad on 24-feb-2025, with concern about patches of depigmentation that had been slowly appearing on different areas of his body over the past five years. Examination revealed several distinct, symmetrical white blotches on his bilateral hands and fingers, bilateral pinnae extending to temporal region with white hair, bilateral clavicular region, and over all back in scattered form. There was no history of itching, burning sensation, or scaling on vitiligo patches. Physical examination and vital signs recorded during the day-0 visit of OPD did not reveal any abnormal findings. He was in a stable clinical condition. The vitals were normal in range. His Blood Pressure was 125/80 mmHg, Heart Rate 83/min, Respiratory Rate 18/minute and body temperature 97.3°F. As per the statement by Mr. A, he was suffering from extreme anxiety due to the noticeable disease before marriage. After marriage his anxiety reduced because of marriage with vitiligo female patient two years ago. The photographs were taken on day-0 of all affected sites of vitiligo in consent room as shown in Fig. 1-5.

Treatment history of vitiligo:

Three years ago, the patient consulted a private Ayurveda physician and continued treatment for two years; but did not get any relief. He did not provide any documentation of previous treatment.

Family history of any illness:

There was no family history of vitiligo or any systemic illness noted during the day-0 visit.

Safety Assessments:

Laboratory investigations:

Pre and Post treatment laboratory investigations were performed on 24-Feb-2025 and 25-Aug-2025, respectively as shown in Table No-1.

Table 1: Pre and Post treatment laboratory investigations:

S. No.	Laboratory Investigations	At Baseline	End Line
1.	Haemogram	Hb (g/dL)	14.8
		TLC/mm ³	11000
		RBC Count (Millions)	5.6
		Platelet Count (Lakhs)	3.6
		DLC	N (%)
			L (%)
			E (%)
			M (%)
			B (%)
		ESR (mm)	1 st hr.
			2 nd hr.
2.	LFTs	S. Bilirubin (mg/dL)	0.62
		SGOT (U/L)	32
		SGPT (U/L)	33
		S. ALP (U/L)	61
3.	KFTs	S. Creatinine (mg/dL)	1.0
		BU (mg/dL)	25
4.	Urine Examination	Routine	
		Colour	P. yellow
		Transparency	Clear
		pH	Acidic

		Microscopic		
1.	Stool Examination Ova/Cyst	RBC	None	
		Pus cell	02	
		Epithelial Cell	02	
		Crystals	None	
		Cast	None	
		Colour	Brownish	
		Form & Consistency	Semi solid	
		Blood	Nil	
		Mucus	Nil	
		Pus cell	Nil	
		Protozoal Parasites	Nil	
		Helminthic ova	Nil	
		RBC	Nil	
		Pus cells	Nil	

Topical application:

On day-0 of OPD visit, the patient was sent to the nursing department for topical application of the drugs to rule out any adverse reaction. Topical application of UNIM-004 and UNIM-005 drugs was applied for 30 minutes, and the patient was kept under observation for 30 mints. No adverse reactions were reported.

Treatment Plan:

After safety assessment and test dose, the patient was advised to continue treatment with UNIM-004 and UNIM-005 for two months as shown in Table 2. No concomitant medicine was prescribed, and the patient was strictly instructed not to take any other medicine for the same disease.

Table 2: Oral and Topical Medication:

Study Drugs Name	Dosage Form	Dose	Route of administration	Frequency	Method of administration
UNIM-004	Tablets	2 Tablet (500mg each)	Oral	Twice daily	To be taken after food
UNIM-004	Tablets	Q. S	Topical	Once daily	Mixed with 10 ml of water, applied with cotton on affected facial area only for 15 minutes, followed by sunlight exposure in early morning.
UNIM-005	Powder	Q. S	Topical	Once daily	Mixed with 30 ml of water, applied with cotton on affected area other than face for 15 minutes, followed by sunlight exposure in early morning.

Dietary Recommendations:

In Diet-therapy, the patient was strictly advised to have a diet with hot properties while restricting cold and moist foods including fish, milk and milk products and all citrus fruits and citrus based-products completely

Table 3: Follow-Ups Along with VASI Score

Visits along with date	Day-0 24-Feb-2025	1st follow up 22-Apr-2025	2nd follow up 09-June-2025	3rd Follow up 25-Aug-2025
Vitiligo area and status	Examination revealed several distinct, symmetrical white blotches on: <ul style="list-style-type: none"> Submandibular region Bilateral pinnae extending to temporal region with white hair, Bilateral clavicular region, Over all back in scattered form. Bilateral hands with fingers 	<ul style="list-style-type: none"> Submandibular region Bilateral pinnae extending to temporal region with white hair, Bilateral clavicular region, Over all back in scattered form Bilateral hands with fingers 	<ul style="list-style-type: none"> Submandibular region Bilateral pinnae extending to temporal region with white hair, Bilateral clavicular region, Over all back in scattered form Bilateral hands with fingers 	<ul style="list-style-type: none"> Submandibular region Bilateral pinnae extending to temporal region with white hair, Bilateral clavicular region, Over all back in scattered form Bilateral hands with fingers

	<p>region with white hair,</p> <ul style="list-style-type: none"> • Bilateral clavicular region, • Over all back in scattered form. • Bilateral hands with fingers. <p>Photographs were taken on Day-0 of all affected sites of vitiligo in consent room as shown in Fig 1-5.</p>	<ul style="list-style-type: none"> • No reduction in the size of vitiligo patches was observed, but some patches exhibit black spotting. No dose was missed. No adverse event or adverse reaction was noted. Patient was confident and vitals were stable. Dietary recommendations were strictly followed as stated by the patient. 	<ul style="list-style-type: none"> • Bilateral hands with fingers. • Reduction in vitiligo patches with repigmentation was observed. No dose was missed. No adverse event or adverse reaction was noted. Patient was confident and vitals were stable. Dietary recommendations were strictly followed as stated by the patient. 	<p>A highly significant reduction in vitiligo patches and repigmentation was observed confirmed by calculated VASI score and photographs from the last follow up as shown in Fig No 1-5. No dose was missed. No adverse event or adverse reaction was noted. Patient was confident and vitals were stable. Dietary recommendations were strictly followed as stated by the patient. Further two months of the same therapy was advised.</p>
VASI Score (Hand Units-4)	3.2	3.1	2.6	0.5
Reduction or recovery (%)		3.125	18	84.375

Results:

Safety assessment was done on day-0 and on the third follow-up, some laboratory parameters were deranged on day-0 (before treatment) which became normal on the third follow up as shown in table 1. Before treatment VASI Score was 3.2. On the first follow-up which was conducted after two months of initiating therapy, while the size of the vitiligo patches showed no reduction, some patches exhibited black spotting and VASI Score was 3.1. On the second visit it was noted that some vitiligo patches showed repigmentation and reduction in size, with a VASI Score of 2.6. On the third visit, the remaining depigmented patches continued to show gradual repigmentation with reduction in size, and few patches were completely resolved resulting in 0.5 VASI Score and 84.375 % reduction according to

VASI scale. Pre and post treatment photographs (Fig. 1-5) confirm significant clinical improvement. The patient did not report any adverse effect or reaction throughout the treatment course. The coded Unani formulation was well tolerated and deemed safe and effective for both oral use and topical application in vitiligo.



Fig.1 Vitiligo Patches Involving Sub-mandibular region.



Fig.2 vitiligo patches involving bilateral pinnae extending to the temporal region.



Fig. 3 Vitiligo Patches involving bilateral clavicular region.



Fig. 4Vitiligo patches involving all over the back in scattered form.



Fig. 5 Vitiligo patches involving the hands and fingers bilaterally.

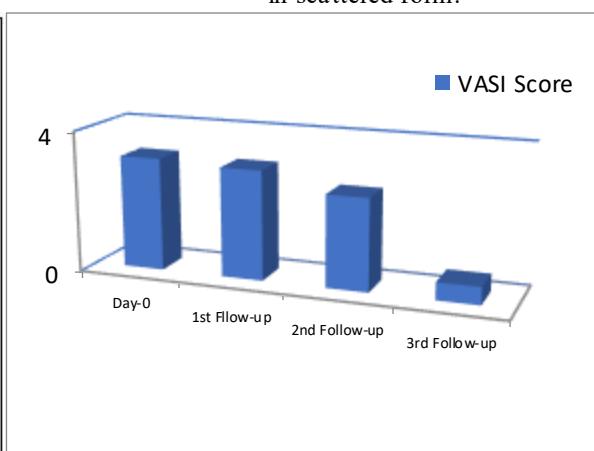


Fig. 6 VASI Score

Discussion:

Vitiligo, or Baraş in Unani medicine, is attributed to humoral imbalances particularly excess phlegm and weakened transformational faculties. In this case, treatment with coded Unani formulations (UNIM-004 and UNIM-005) followed by sunlight exposure led to significant repigmentation and completes resolution of some vitiligo patches within six months. The absence of adverse effects and the progressive improvement validate the traditional Unani approach. Additionally, patient follows the dietary recommendations strictly. In this case we also observed that the mental well-being of the patient which was adversely affected due to cosmetic impact of the disease starts to improve after marriage highlighting the concept of importance of psychic state of patient in effective treatment. This case study supports the potential of Unani medicine as a safe, effective, and holistic option for managing vitiligo.

Conclusion:

In this case, treatments with coded Unani formulation (UNIM-004 and UNIM-005) followed by sunlight exposure led to significant repigmentation and complete resolution of some vitiligo patches within six months. The progressive improvement is validating the traditional Unani approach.

Ethical Consideration:

Consent was obtained from the patient in layman's language (Hindi) to publish any scientific data related to vitiligo. Treating physician will ensure the confidentiality of the data. Participant will not be identified by name in any case-study related publication.

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Conflict Of Interest: None

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