

Clinical evaluation of Babchi (*Psoralea corylifolia* Linn.) in Bars (Vitiligo) - An Open Study

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Abstract

Vitiligo is a progressive disorder in which some or all of the melanocytes in the affected skin are selectively destroyed. Vitiligo affects 0.5-2% of the world population, and the average age of onset is 20 years. In the view of available literature of Unani medicine herbal drug *Babchi* (*Psoralea corylifolia* Linn.) which is claimed to be effective in this ailment were used in powdered form for the trial. To evaluate the efficacy of the drug 40 patients of Bars (Vitiligo) between 10-60 age groups was selected on the basis of clinical diagnosis and investigations. The clinical assessment was done in term of relief in sign and symptoms. The duration of study was 60 days. The clinical result suggested that the oral use and local application of the medicated paste of Babchi is effective in treating the vitiligo with no side effects during the course of study.

Key words: Vitiligo, Bars, Babchi, *Psoralea corylifolia*.

Introduction

The term vitiligo has been derived from the Latin word *vitelius* meaning calf. The characteristic white patches of spotted calf. The term was first used by Celsus, a Roman physician of 2nd century AD (Valia, 2001). Al-Majoosi in his master piece *Kamil-us-Sana'a* says that Bars is a whiteness occurring in outer surface of the body. Sometimes it occurs in few organs, sometimes it affects all organs. The disease occurs due to the domination of phlegmatic humor in the blood and due to weakness in *Quwwat-e-Mughaiyrah* (transformative faculty) in the organ. (Majoosi, 930-994 AD). According to Ibne-Sina, defect lie at the tissue level in the function of *Quwwat-e-Mushabbeha*. Therefore due to the failure of this power, depigmentation occurs. (Ibne Siena, 980-1037 AD). To the ancient Unani physicians, it is a metabolic disorder resulting mainly due to humoral derangement, excess of *Balgham* (phlegm), weakness of *Quwwat-e-Mughaiyarah*, *Quwwat-e-Mushabbiha* and *Quwwat-e-Dafia* (transformative, homogenizing, and expulsive faculties). (Ajmal Khan, 1864-1927 AD). All the Unani physicians are of the opinion that the treatment of the vitiligo should be started with *Tanqiyah-e-Badan* (removal of harmful material from the body). The role of diet restriction and recommendations are well documented in the classics of Unani literature in the management of vitiligo. Mostly *Munzij-e-Balgham* with *Mushil* is given in the management of vitiligo which plays a vital role in correcting the humoral derangement. Unani physicians are also aware of the fact that exposure to the sun activates the process pigmentation. (Zakariya Raazi, 850-925 AD; Majoosi, 930-994 AD).

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Vitiligo is an acquired, disfiguring patchy loss of skin pigment. This is usually progressive acquired acroleucopathia and melanocytopenia of unknown causes which is often familial and is characterized by pale white macular patches which enlarge centrifugally. Diagnosis of the vitiligo is usually easy and can be made by clinical experience. The diagnosis is based on age of onset, distribution, depigmented macules, leucotrichia, Koebner's phenomenon and predilection for the site of trauma. (Champion *et. al.*, 1998; Arnold, 1990; Cohen *et. al.*, 1999).

In spite of advancement in the treatment of vitiligo in modern system of medicine, there is no cure for vitiligo. So there is need to search for some safe and effective remedies from natural sources either plants, minerals or animal source. The Unani drugs are proved to be effective in the treatment of Bars (Vitiligo) for hundred of years. Hence study was planned to evaluate the therapeutic efficacy of single drug Babchi (*Psoralea corylifolia* Linn.) in the treatment of Bars (Vitiligo).

Methodology

This study was carried out on 40 cases of vitiligo in the outdoor sections of Moalejat, Ajmal Khan Tibbiya College Hospital, AMU Aligarh U.P during the period extending from 2006-2007. The cases below 10 years, patients on active vitiligo treatment with other drugs, known allergies, with other skin diseases and non co-operative patients were excluded from the study. All the cases were informed about the duration of the study, the expected benefits, and the adverse effects of the drugs to be used. The diagnosis of the vitiligo was made on the basis of clinical history, physical examination and investigations like, stool examination, skin scrapping (KOH smear) and skin biopsy (in few cases). Five grams of *Babchi* powder is mixed with 50ml of water and advice the patient to drink its zual (filtered water) and medicated paste was prepared by mixing the sufl (precipitate) with sirka-e-jamun and then applying this paste over the vitiligo patches. The patch was then exposed to sunlight for at least 30 minutes. The paste was washed off after 30 minutes of the topical application. The duration of study was 60 days. The follow up of all the cases was carried out at the interval of 15 days i.e. 0, 15, 30, 45, 60 days.

Observations

Forty patients of either sex in the age group of 10 to 60 years were taken in the clinical trial, and the effect of Unani single drug Babchi was assessed

depending on the above mentioned parameters. Out of forty patients 22 (55%) were males and 18(45%) females. It has been observed that maximum number of patients were in the age group of 10-20 years 17 (42.5%) (Table 1).

Table-1. Showing Distribution of Patients According to Age and Sex

| Age Group (in years) | No. & % of patients | | No. & Percentage |
|----------------------|---------------------|---------|------------------|
| | Males | Females | |
| 10 – 20 | 10(25) | 7(17.5) | 17(42.5) |
| 21 – 30 | 5(12.5) | 4(10) | 9(22.5) |
| 31 – 40 | 2(5) | 4(10) | 6(15) |
| 41 – 50 | 3(7.5) | 1(2.5) | 4(10) |
| 51 – 60 | 2(5) | 2(5) | 4(10) |
| Total | 22(55) | 18(45) | 40(100) |

Results and Discussion

Forty patients suffering from Bars (vitiligo) were treated with single unani drug Babchi along with the local application of medicated paste for a period of 60 days. The response of the drug was assessed on the basis of clinical sign and symptoms, the drug was found very effective in the treatment of Bars (Vitiligo).

The maximum number of patients registered are unmarried 24 (60%). (Table 2). The maximum number of patients according to occupation are students 14 (35%). (Table 3). Out of 40 patients 40% belongs to the lower class group. (Table 4). It has been observed that out of 40 patients 17 (42.5%) of patients has positive history of trauma and pressure. (Table 5). The maximum number of patients 25 (62.5%) have the multiple number of patches. (Table 6). Out of 28 (70%) of the patients there are symmetrical distribution of patches. (Table 7). Similarly out of 40 patients the maximum number of patients 8 (20%) have the facial distribution of vitiligo patches (Table 8).

Table-2. Showing Distribution of Patients According to Marital Status

| Marital Status | No. of patients | Percentage |
|----------------|-----------------|------------|
| Married | 16 | 40 |
| Un-married | 24 | 60 |

Table-3. Showing Distribution of Patients According to Occupation

| Occupation | No. of patients | Percentage |
|------------|-----------------|------------|
| Business | 10 | 25 |
| Housewives | 7 | 17.5 |
| Service | 3 | 7.5 |
| Students | 14 | 35 |
| Others | 6 | 15 |

Table-4. Showing Distribution of Patients According to Socio-Economic Status

| Socio-Economic status | No. of Patients | Percentage |
|-----------------------|-----------------|------------|
| Lower Class | 16 | 40 |
| Middle Class | 14 | 35 |
| Higher Class | 10 | 25 |

Table-5. Showing Distribution of Patients According to History of Trauma and Pressure

| History | No. of Patients | Percentage |
|-------------------|-----------------|------------|
| Trauma & Pressure | 17 | 42.5 |
| Negative History | 23 | 57.5 |

Table-6. Showing Distribution of Patients According To Number of Patches

| H/o of Vitiligo patches | No. of Patients | Percentage |
|-------------------------|-----------------|------------|
| Single | 15 | 37.5 |
| Multiple | 25 | 62.5 |

Table-7. Showing Distribution of Patients According to Symmetric/Non Symmetric Patches

| H/o of Vitiligo patches | No. of Patients | Percentage |
|-------------------------|-----------------|------------|
| Symmetric | 28 | 70 |
| Non Symmetric | 12 | 30 |

Table-8. Showing Distribution of Patients According To First Part of the Body Affected

| Parts of body involved | No. of Patients | Percentage |
|---|-----------------|------------|
| Scalp and Forehead | 6 | 15 |
| Face | 8 | 20 |
| Neck | 3 | 7.5 |
| Chest (Breasts, Nipples) | 5 | 12.5 |
| Back | 4 | 10 |
| Upper limbs | 4 | 10 |
| Lower limbs | 7 | 17.5 |
| Abdomen | 3 | 7.5 |
| Genitals (Scrotum, Vagina, Perineal region) | 00 | 00 |

The response of the drug was observed in clinical sign and symptoms of Bars (Vitiligo) patients. Of the clinical parameters evaluated depigmented white patches, depigmented pink patches, loss of hairs over patches, white hairs over patches, new eruptions over patches , itching, burning and photosensitivity showed 71.4%, 66.6%, 62.5%, 33.3%, 36.3%, 53.3%, 60%, 70% improvement respectively (Table 9).

Table-9. Showing therapeutic response of Drug on Clinical features of the Disease

| Clinical Features | No. of Patient (s) (Before treatment) 0 day | No. of Relieving cases & Percentage of improvement |
|----------------------------|---|--|
| | Before treatment) 0 day | (After treatment) 60 th day |
| Depigmented white patches | 28 | 20(71.4) |
| Depigmented pink patches | 12 | 8(66.6) |
| Loss of hairs over patches | 8 | 5(62.5) |
| White hairs over patches | 21 | 8(33.3) |
| New eruptions over patches | 11 | 4(36.3) |
| Itching | 15 | 8(53.3) |
| Burning | 10 | 6(60) |
| Photosensitivity | 10 | 7(70) |

The above observation and results shows that the drug seems to have irritant, corrosive, antivitaligo, blood purifier and anti-phlegm effect. (Nandkarni, 2000; Ali SS, 1999). During the study no adverse effect(s) were noted clinically. Liver function test and renal function test were done before and after treatment and the results show that there is no adverse effect of drug on liver and kidneys. The study has concluded that the single Unani drug Babchi (*Psoralea corylifolia* Linn.) is effective and safe in cases of Bars (Vitaligo).

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