

Case Report
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Management of Acne in Unani System of Medicine: A Case Report

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ABSTRACT

Introduction: Acne is a common skin disorder of pilosebaceous gland. It caused due to excessive production of sebum, hyperkeratinisation and proliferation of *Propionibacterium acnes* bacteria.

Case presentation: This case report is of 38 years of female having severe problem of acne. She has no family history and her menstrual order was normal. Previously she had taken modern medicine orally and topically but did not relieve.

Conclusion: The treatment with Majoon Ushbah orally and multicomponent powdered formulation applied topically proved to be effective. There was significant ($p<0.05$) reduction of Global Acne Grading Score (GAGS) nearly 81% as compared to baseline. VAS (Visual Analogue Scale) indicated changes in appearance and symptoms at the end of study. There was significant improvement in DQLI (Dermatology Quality of Life Index). The tested drug proved to be effective in management of acne.

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Introduction

Acne is chronic inflammatory disease which has substantial pessimistic effects on psychological and social state [1]. It occurs due to inflammation of pilosebaceous gland lead to increased sebum production, altered keratinisation and colonization of bacteria (*propionibacterium acnes*) [2]. Acne vulgaris is termed as *Basoore Labniya*, *Mohasa* or *Keel* in Unani system of medicine. Ibn Sina mentioned acne (mohasa) as white eruptions on the nose and cheeks which resembles drops of milk. Unani system considered etiology of acne to be to be *Madda Sadeediya* (suppurative material), which comes towards the skin surface due to *Bukharat* (vapours) of the body and is not resolved in the skin due to its viscosity [3]. The complementary and alternative medicine acceptance is increasing globally among patients and practitioner due to individual effect [4]. Hence the present case study was conducted to evaluate the effect of Majoon Ushbah (a traditional Unani pharmacopeial formulation) and powder mixture of Sang-e -Jarahat (Soap Stone), Murdar Sang (lead oxide), Sandal Sufaid (sandalwood) and Kafoor (Camphor) for the treatment of acne.

Case Presentation

We are presenting a case of 38 years old female had visited the OPD (out patient department) of Regional Research Institute of Unani Medicine, Aligarh. She had complained of severe

eruptions on the face and multiple papules, pustules, and nodules on cheeks, chin, and forehead. She was examined thoroughly by attended clinician diagnosed with Acne vulgaris (Labniya). Local examination showed multiple papules, pustules, and nodules over the face, neck, and back of the patient. Observation made using magnifying glass showed appearance of multiple blackheads and white head comedones with inflammation and itching sensation (which are the cardinal feature of acne vulgaris). There was no family history of acne. She was having normal menstrual cycle. Previously she had taken different treatment locally and orally but did not relieve.

She was enrolled in the study after giving written informed consent. Polycystic ovary was ruled out by Ultrasonography performed prior to enrolment. The patient undergone routine investigation of blood and urine. Liver function test (LFT) and Renal function test (RFT) were investigated as safety parameters before and after the treatment. The patient was asked to take Majoon Ushbah 6g twice orally daily along with local application of powdered mixture 3 times locally on affected area continuously for 03 months. The drug was manufactured and supplied by National Research Institute of Unani Medicine for Skin disorders, Hyderabad. The effectiveness was assessed by using (GAGS), (VAS) and DQLI. GAGS were analyzed by using method proposed by Doshi A et al as shown in Figure1[5].

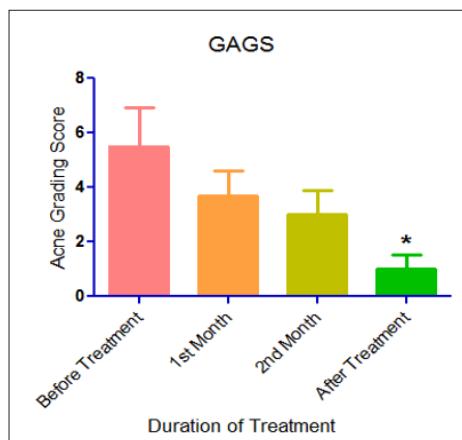


Figure 1: Acne Severity Assessment based on GAGS, Each type of lesion is given a value depending on severity: no lesions = 0, comedones = 1, papules = 2, pustules = 3 and nodules = 4. The score for each area (Local score) is calculated using the formula: Local score = Factor \times Grade (0-4). Statistical analysis was performed by using one way ANOVA using tukeys test as post hoc analysis. $P<0.05$ vs. baseline values

There was a significant ($p<0.05$) reduction of GAGS post treatment as compared to score obtained before treatment. It was approximately 81% reduction in GAGS with respect to baseline. VAS indicated changes in appearance and symptoms at the end of study. Pain and inflammation subside completely with little itching and burning sensation mentioned by study subject as shown in Figure 2.

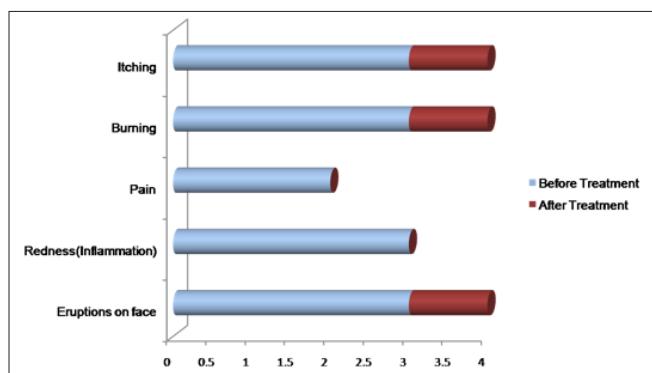


Figure 2: Analysis of Clinical Features based on Visual Analogue Scale (VAS)

The clinical effect was also assessed by (DQLI) which is a technical questionnaire for general health, disease specific and dermatology specific which was filled at baseline and at the end of treatment as shown in Table 1. The results showed significant ($p<0.01$) improvement in DQLI as the score reduced up to 78.5% as compared to baseline. The safety assessment revealed no significant changes in LFT and RFT as compared to baseline values. The overall effect observed is shown in Figure 3.



Figure 3: (A) Photo of cheek before treatment (B) Photo of cheek after 3 months treatment

Table 1: Dermatology Quality Life Index (DQLI). Statistical analysis was done using graph pad prism version 5. T-test was applied on mean value. After treatment significant ($p<0.01$) improvement was observed in DQLI as compared to baseline

S.No	Questionnaire	Before treatment	After Treatment
1.	How itchy, sore, painful or stinging has your skin	3	0
2.	How embarrassed or self-conscious	4	0
3.	How much has your skin interfered with you going shopping	3	1
4.	How much your skin has influenced your clothes you wear	3	1
5.	How much has your skin affected any social activities?	4	0
6.	How much has your skin made it difficult to do any sport	0	0
7.	Has your skin prevented you from working or studying?	3	0
8.	How much has your skin created problem with your partner	3	1
9.	How much has your skin caused any sexual difficulties	2	1
10.	How much has your skin created problem with prepared food.	3	2

Discussion

To date no clinical trial is conducted to evaluate the effect of Majoon Ushbah in acne vulgaris. The results of the present case study evident promising outcome for treatment of acne vulgaris. Available literature showed that one of the chief constituent of Majoon Ushbah i.e. Chopchini (*Smilax china*) possessed the activity of blood cleanser, antimicrobial and antioxidant property which needed to cure the acne [6]. The effectiveness of Majoon Ushbah is possibly due to presence of antimicrobial, antioxidant and anti-inflammatory property of few ingredients. Like, the antibacterial property of Post-e-Balela (*Terminalia bellerica*)

was reported by Aqil F showed that ethanolic extract screened against nine bacteria out of which the extract demonstrated activity against six bacteria [7].

Similarly, post-e-halela zard (*Terminalia chebula* Retz.) is another constituent of Majoon Ushbah which contains tannins chebulinic acid, ellagic acid and anthraquinones. These constituents demonstrated the activity of antioxidant, free radical scavenging property and ant allergic property [8].

Further, it is evident in literature that cutaneous system and gastrointestinal system are closely interlinked as dermatological manifestations are frequently associated with GI syndromes [9]. Senna (*Cassia angustifolia*) which is a chief ingredient of Majoon Ushbah used for gastrointestinal disorders in Unani system of medicine called as *sannai*. The seeds of it are used to treat skin disorders, abdominal troubles, anthelmintic, and digestive [10]. The current study showed significant improvement as GAGS was reduced statistically significant ($p<0.05$) up to 81% as compared to baseline score. Nearly similar results were obtained in a clinical study conducted on 30 patients of dermatophytosis where 5g of Majoon was administered orally twice a day continuously for 45 days. The results showed 70% improvement in erythema and approx 55% improvement in papules and pustules [11].

Additionally, the multicomponent powdered formulation used topically proved to be effective in management of acne. The murder sang (lead oxide) effect demonstrated in study showed that lead oxide penetrate the skin caused cleansing and decontamination of skin [12]. Another component of study formulation sandalwood (*Santalum austrocaledonicum*) showed broad-spectrum antimicrobial activity against five strains in a study conducted by Orchard A et al. in 2018 [13]. Kafoor (Camphor) on the skin acts as a counter irritant and is therefore used topically to relieve pain and swelling. Hence, the powdered used topically in the current study played a role as antimicrobial, skin cleanser and counterirritant.

Based on above findings it is clearly evident that Majoon Ushbah administered orally along with local application of multicomponent powdered formulation may be considered effective and alternative treatment of western medicine for management and treatment of acne vulgaris.

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