



EFFECTIVENESS OF *HABB-I-MUSAFFI KHUN* IN MANAGING *BUTHUR-I-LABANIYYA* (ACNE VULGARIS): A CASE STUDY

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Case Report

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ABSTRACT

Acne Vulgaris (AV) is one of the most common skin disorders worldwide, impacting individuals across all races and ethnicities and primarily affecting the pilosebaceous glands. It is caused by excessive sebum production, thickening of the skin, and the growth of *Propionibacterium acnes* bacteria. The condition predominantly affects adolescents, with approximately 80% of teenagers diagnosed and around 85% of young people experiencing some form of acne. While it typically emerges during puberty, it can also occur in individuals up to 25 years or older, with males generally experiencing more severe cases. In Unani medicine, *Buthur-i- Labaniyya* is identified as small white spots on the nose and cheeks that resemble drops of milk. The principles of treatment (*Usul-i-'Ilaj*) focus on the *Istifragh* (evacuation) of phlegm from the body and brain, alongside the use of *Mufattih* (deobstruent), *Jali* (detergent), and *Muhallil* (resolvent) medications. This case study reports on a 28 year old female patient suffering from AV who had not previously received treatment. She was administered *Habb-i-MusaffiKhun* (HMK), two tablets twice daily, over four-week period. The patient exhibited significant improvement in her acne symptoms, highlighting the effectiveness of Unani formulation in managing this common condition. This study aims to underscore the potential of Unani medicine in treating Acne Vulgaris.

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Introduction:

Acne Vulgaris is a chronic inflammatory disorder of the pilosebaceous units.¹ In dermatological literature, adult female acne is considered as an inflammatory skin condition determined by

multiple factors, which may or may not involve hyperandrogenism.² Clinical manifestations of acne include open and closed non-inflammatory comedones, as well as varying degrees of inflammatory lesions such as papules, pustules,

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and nodules. The most commonly affected areas are the face, back, and chest. Post-inflammatory macules, pigment alterations, and scarring are frequently observed. Follicular plugging, or comedones, obstructs the drainage of sebum, while androgens stimulate the sebaceous glands to produce excess sebum. Bacterial lipase breaks down lipids into fatty acids, generating pro-inflammatory mediators that trigger an inflammatory response. When the walls of the distended follicles rupture, sebum, lipids, fatty acids, keratin, and bacteria infiltrate the dermis, provoking an inflammatory and foreign-body reaction. This intense inflammation can result in scarring.^{3,4} Acne is a polymorphic condition primarily affecting the face (99%), with lesser involvement of the back (60%) and chest (15%). Although it predominantly occurs in adolescents, it also affects 8% of individuals aged 25 to 34 and 3% of those aged 30 to 44.^{5,6}

AV is known in Hindi as Muhasah and in Persian as Rukharah, along with other synonyms such as Buthur-i-Labaniyya, Habb al-Shabab, and Buthur Duhniyya.⁷ In Unani, AV is referred to as Buthur-i-Labaniyya, where Buthur refers to an eruption and Labaniyya means milky. Ibn Sina described Buthur-i-Labaniyya as small, white eruptions that appear on the nose and cheeks, resembling condensed drops of milk.⁸ A'zamKhan and Tabri noted that this condition is characterized by whitish eruptions on the face and cheeks, likened to Nuqta-i-Shir (drops of milk). When pressed, these eruptions release an oily secretion resembling Ravghan-i-Zard (clarified butter). Buthur-i-Labaniyya typically occurs around puberty. Zakariya Razi introduced a specific type of eruption called Atiasus, which consists of small, dry rashes on the face that are hard in consistency and chronic in nature.^{9,10} This condition is classified as Mu'tadi (infectious) and is marked by white lesions on the face, nose, and cheeks; when squeezed, they release a cheesy substance. Ahmad bin Tabri referred to Buthur-i-

Labaniyya as Zizan, which appears on the face.⁹

In the Unani System of Medicine, various Mufrad (single) and Murakkab (compound) medications have been used to treat Buthur Labaniyya. These treatments are considered safe and do not typically cause significant side effects. Medications with Jali (detergent), Muhallil (resolvent), Muhaffi-i-Dam (blood purifier), and Mujaffif (desiccative) properties are employed in the treatment of Buthur Labaniyya.¹¹ This case study highlights the effectiveness of Unani formulation for treating AV.

MATERIAL AND METHODS

Case Report

A 28-year-old female patient suffering from Acne Vulgaris for one year presented at the OPD of RRIUM in Srinagar, complaining of painful eruptions primarily on her cheeks. Her menstrual history indicated irregular cycles over the past year, and she has not been pregnant. There was no family history of Acne Vulgaris, and she had not sought treatment for her condition. A dermatological examination revealed multiple papulopustular lesions on her face. Under magnification, a few blackhead and whitehead comedones—key features of Acne Vulgaris—were also observed. The severity of her acne was assessed by Investigator Global Assessment Scale (IGAS) by US Food and Drug Administration(FDA).¹² (Table 1).

A comprehensive history indicates that the patient experienced a gradual increase in weight. A dietary habit consisting of junk food, coupled with a sedentary lifestyle, has contributed to the exacerbation of the disease. During the general physical examination, the patient appeared to be in good health, weighing 60 kg and measuring 154 cm in height. All vital signs were normal. She agreed to participate in the study after providing written informed consent.

Table 1: IGASby US FDA.

Grade	Clinical description
0	Clear skin with no inflammatory or noninflammatory lesions
1	Almost clear; rare noninflammatory lesions with more than one small inflammatory lesion
2	Mild severity; greater than grade 1; some noninflammatory lesions with no more than a few inflammatory lesions (papules/pustules only, no nodular lesions)
3	Moderate severity; greater than grade 2; up to many noninflammatory lesions and may have some inflammatory lesions, but no more than one small nodular lesion
4	Severe; greater than grade 3; up to many noninflammatory and inflammatory lesions, but no more than a few nodular lesions

Assessment was done using the IGAS by US FDA prior to treatment. After evaluating the patient, it was determined that she had grade 2 AV, characterized by the presence of papules and comedones, with no nodules or cysts observed on the patient's face.

Intervention and follow-up

The patient was treated following the principles mentioned in classical texts of Unani Medicine. The Unani drug HMK¹³ was obtained from RRIUM Hospital dispensary and administered as two tablets twice daily for four-week period. The ingredients of HMK included *Bakayin* (*Melia azedarach*), *Barg-i-Nim* (*Azadirachta indica*) 5 g each; (*Lawsonia inermis*), *Barg-i-Henna* (*Lawsonia inermis*) 2 g; *Sandalsurkh* (*Pterocarpus santalinus*), *Brahamdandi* (*Tricholepis glaberrima*), *Halela Zard* (*Terminalia chebula*), *Chaksu* (*Cassia absus*), *Sarphoka* (*Tephrosia purpurea* L.), *Shahtra* (*Fumaria indica*), *Kishneez Khushk* (*Coriander sativum* L.), *Neelkanthi* (*Ajuga bracteosa*), *SadalSafed* (*Santalum album* L.), *Gul-i-Surkh* (*Rosa damascene* Mill) each 3 g, *FilfilSiyah*, (*Piper nigrum* L.), *Zeera Safed* (*Cuminum cyminum*), *Kachnal* (*Bauhinia racemosa* Lam) each 1 g. The patient was followed every 15 days, and photographs were taken before and after treatment. The patient was advised to avoid cold, salty, sour, fermented, and spicy foods while also maintaining a stress-free

lifestyle. As a result of the treatment at the end of 4 weeks, improvement was noted as Grade 0; the number of eruptions on the face diminished in number, and the skin appeared nearly clear. No adverse effects were reported during the treatment.

DISCUSSION

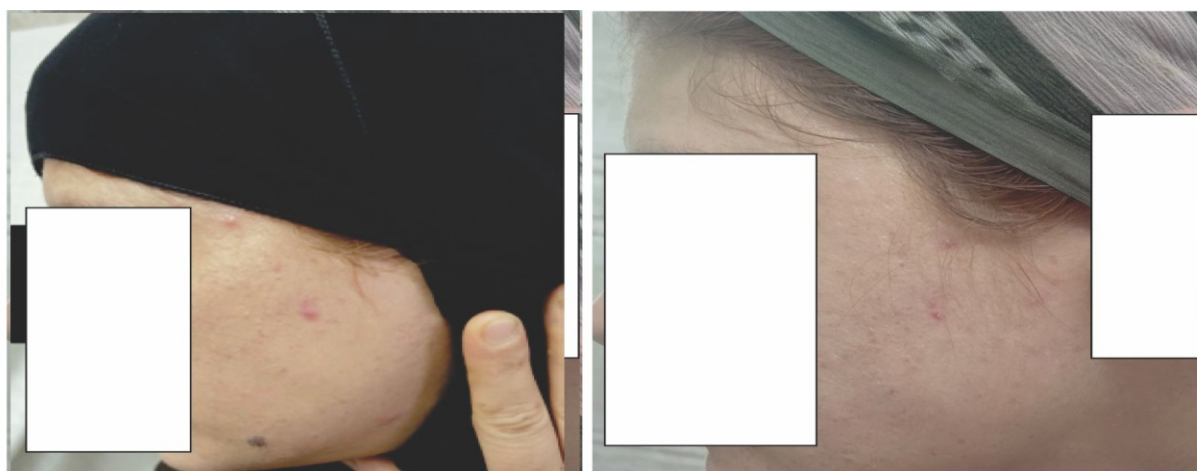
Patient's improvement might be a result of the pharmacological properties of the ingredients in HMK. HMK includes *Bakayin* (*Melia azedarach*), recognized for its therapeutic benefits such as antibacterial, fungicidal, antiulcer, antipyretic, anticancer, and wound-healing properties.¹⁴ *Barg-i-Nim* is valued in Unani medicine for its blood-purifying and antibacterial effects. Research on *T. chebula* extracts has highlighted their antibacterial properties, antioxidant activity, inhibition of lipid peroxidation, and suppression of superoxide radicals.¹⁵ A study by Keshavarz *et al.* (2016) noted *Henna's* anti-inflammatory, antimicrobial, antibacterial, antifungal, and immune-modulatory properties.¹⁶ *Tephrosia purpurea* demonstrates antiulcer, antioxidant, wound healing, antiviral, analgesic, anti-inflammatory, antimicrobial, mast cell stabilizing, cytotoxic, and antipyretic activities.¹⁷ Nisar Ahmad *et al.* (2012) reported various biological activities associated with *Piper nigrum*, including antibacterial, antifungal, analgesic, anti-inflammatory, antimutagenic,

anti-metastatic, antioxidative, and immunomodulatory effects.¹⁸ Research by Khare *et al.* (2020) on *Tricholepis glaberrima* highlights its effectiveness against fungal infections and inflammation.¹⁹ *Bauhinia racemosa* Lam. exhibits a wide range of therapeutic properties, including antibacterial, antifungal, anti-inflammatory, antioxidant, analgesic, anti-ulcer, and anticancer activities.²⁰ Research by Akriti *et al.* (2011) on

Ajuga bracteosa revealed its anti-inflammatory effects, cytotoxicity against KB cell cultures, and antibacterial activity against gram-positive bacteria.²¹ *Santalum album* displays diverse benefits, including anti-inflammatory, anti-mitotic, antiviral, anticancer, anti-ulcer, antifungal, and antibacterial properties.²²

RESULT

The significant changes in acne before and after treatment are shown in Figures 1 and 2.



Note: These pictures were taken in the same location under similar lighting conditions, capturing the lateral side of the face (OPD of RRIUM, Srinagar).

CONCLUSION

This case report illustrates the positive outcomes of using HMK for the treatment of AV. AV is a common dermatological condition characterized by comedones, papules, and pustules, often resulting from hormonal fluctuations, excess sebum production, and inflammation. The patient showed significant improvement over the four-week treatment period, with a notable decrease in lesions and clearer skin. These results indicate that HMK is safe and effective for treating AV and showed a remarkable response. The trial requires the study on large sample size with more subjective and objective parameters, safety parameters, efficacy parameters after proper ethical clearance. This study aims to reflect only symptomatic relief to the case.

Abbreviations: AV (Acne Vulgaris), HMK (*Habb-i-Musaffi Khun*), IGAS (Investigator Global

Assessment Scale), FDA (Food And Drug Administration)

Compliance with ethical standards:

Declaration of patient consent:

The patient provided written informed consent about her case that the author can use the study outcomes, her photographs for publication in the Scientific journal and for official and research purposes. In the consent form, she agreed to report herself for clinical information in a scientific context. She acknowledged that her name and initials would remain confidential, and efforts would be made to protect her identity.

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