

Effect of Topical Unani Formulation in the Treatment of Acne Vulgaris: A Case Report

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Abstract

Case Report

Acne vulgaris is a chronic inflammatory skin disorder that affects the pilosebaceous units, primarily during adolescence but also in adulthood. This case report examines a patient with moderate acne vulgaris, highlighting its clinical presentation, pathophysiology, and psychosocial impact. The patient, a 20-year-old male, presented with multiple comedones, papules, and pustules predominantly on his face, consistent with the typical manifestations of acne vulgaris. He had previously used modern medications orally, but they were ineffective. The condition is characterized by four primary factors: excessive sebum production, follicular hyperkeratinization, proliferation of *Propionibacterium* acnes, and inflammation. These factors lead to the formation of comedones and inflammatory lesions, which can result in scarring and hyperpigmentation if left untreated. The treatment with a topical formulation prepared by *Kalonji* and *Naushadar* in equal amounts is powdered and mixed with *Sirka Jamun* and applied topically at night on the face. The tested drug proved to be effective in managing acne. This case underscores the multifactorial nature of acne vulgaris and its significant impact on quality of life. It emphasises the need for individualised treatment approaches that consider this common dermatological condition's physical and psychological aspects.

Keywords: Acne vulgaris, Topical treatment, Kalonji, Naushadar, Psychosocial impact.

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INTRODUCTION

Acne vulgaris is a common inflammatory skin condition that primarily affects the pilosebaceous units, which consist of hair follicles and sebaceous glands. It is characterized by the formation of various lesions, including comedones (blackheads and whiteheads), papules, pustules, and nodules, predominantly on the face, back, and upper chest. The condition typically emerges during adolescence but can persist into adulthood or appear later in life, affecting approximately 80% of individuals at some point [1]. Females tend to experience acne earlier than males, which may be related to their earlier onset of puberty. Males are more likely to have the most severe types of acne vulgaris, but girls often experience the condition for a longer duration [2]. Acne is a polymorphic condition that primarily affects the face (99%), with the back (60%) and chest (15%) experiencing less severe cases. While acne predominantly affects adolescents, it also impacts 8% of individuals aged 25 to 34 and 3% of those aged 30 to 44 [3, 4].

In Unani medicine, acne vulgaris is referred to as *Busoor-e-Labaniya*. According to Arzani, these are

white eruptions on the nose and forehead [5]. In his work, the Canon of Medicine, the well-known Unani physician *Ibn Sina* describes *Mohasa* as small white eruptions on the cheeks and nose that resemble condensed milk droplets. The aetiology is said to be *Madda Sadeediya* (suppurative material), which is drawn to the skin's surface by bodily vapours called *Bukharat* and is not eliminated by the skin's viscosity [6].

Acne patients have lower academic performance. People with severe acne and acne scars are more likely to experience anxiety and depression because acne impacts body image [7, 8]. As a result, acne vulgaris requires appropriate care and treatment. There are numerous medications available in allopathy, but none of them are sufficiently effective. Therefore, acne vulgaris treatment is required to cure the problem and all its symptoms without causing any side effects.

CASE PRESENTATION

A 20-year-old man who had acne vulgaris for three years arrived at the Unicure clinic complaining of painful breakouts that mainly affected his cheeks. No information on hypertension or diabetes mellitus was

found in the medical history. His family history of acne vulgaris was negative. There was a history of using allopathic and homoeopathic remedies, but none of them were effective in healing it. For two years, he used a lot of antibiotics and anti-acne lotion as directed by the dermatologist. Several papulo-pustular lesions were seen around the face during a dermatological examination. Numerous black-head and white-head comedones, a hallmark of acne vulgaris, were seen under a magnifying glass. There were multiple blackheads and whitehead comedones (a cardinal feature of acne vulgaris). The patient was treated according to the principles mentioned in classical books of Unani Medicine. Unani drug was

given for local application in the form of Zimad (Paste). He was advised to apply it to the affected area once at night and then wash it with lukewarm water in the morning. Ingredients of Zimad were Kalonji (*Nigella Sativa*) and Naushadar (*Ammonium Chloride*) in equal amounts, powdered and mixed with Sirka jamun. The patient was followed every 15 days, and photographs were taken before and after treatment. As a result of the treatment at the end of 2 months, improvement was observed. The eruptions on the face were diminished in number, and nearly clear skin was seen. No adverse effects were reported during the treatment.



Fig. 1: (A). Photo of Cheek before treatment (B). Photo of the cheek after 2 months of treatment.

DISCUSSION

Improvement in the patient may be due to the pharmacological activities of thymoquinone, the primary bioactive compound in *Kalonji* (*Nigella Sativa*), which has anti-inflammatory, antimicrobial, antioxidant, antiseptic and wound-healing properties and has been shown to modulate immune responses and reduce inflammation in skin conditions [9]. Naushadar (*Ammonium Chloride*) has a keratolytic effect, which means it helps to soften and shed the outer layer of skin, which facilitates the removal of dead skin cells, promoting healthier skin renewal, anti-allergic properties, enhanced skin penetration, pH modulation, which are effective in acne vulgaris [10]. The topical use of Sirka Jamun showcases its potential as a natural remedy for various skin diseases due to its multifaceted mechanisms involving anti-inflammatory, antimicrobial, antioxidant, and healing properties [11].

CONCLUSION

When used to treat acne vulgaris, Zimad of *Kalonji* and *Naushadar* with *Sirka jamun* is both safe and effective. Its limitations include a small population and a short period, yet it demonstrated an impressive response. Therefore, to further investigate the safety and effectiveness of Zimad, studies involving a large sample size and a lengthy follow-up time are required.

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