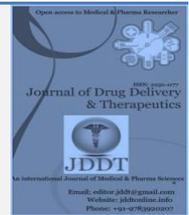


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Review Article

Concept of *Busoore Labaniya* (Acne Vulgaris) and its Management In Light of Unani System of Medicine

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Abstract

Acne vulgaris is extremely common dermatological disorder, affecting more than 85% of adolescents and young adults. In western societies, acne vulgaris is a nearly universal skin disease afflicting 79% to 95% of the adolescent population. A recent systematic review of the epidemiology of acne across the world noted acne prevalence estimates ranging from just over 20% to over 95%. The greatest burden of acne globally is between the first and third decade of life and almost certainly causes embarrassment, stigma, shame, guilt, and low self-esteem, which are likely to cause psychosocial problems. It is characterized by both inflammatory (papules, pustules and nodules) and non-inflammatory comedones (open and closed) lesions. In Unani system of medicine, acne vulgaris is termed as *busoore labaniya* that are whitish eruptions on the nose and face that represent milk droplets or frozen ghee (*Roghan zard*) due to *Ma'dah sadidiyah* or pus like morbid matter that is directed towards the skin for expulsion along with *ghaleez bukharat*. There are mentioned numerous single and compound formulations having *Mujaffif* and *Muhallil* properties for the management of *Busoore Labaniya*. The principle of treatment is aimed to removal of morbid matter, which is the actual culprit for the genesis of pathology leading to development of *busoore labaniya*. So there is need to explore the Unani concept of dermatoses. Present review paper is an attempt to highlight the possible management and preventive measures of acne vulgaris through Unani medicine.

Keywords: *Busoore labaniya*, Acne vulgaris, Unani system of medicine, *Mujaffif* and *Muhallil*.

INTRODUCTION:

Skin disease is one of the most common human illnesses. It pervades all cultures, occurs at all ages, and affects between 30% and 70% of individuals.¹ According to different reports, the prevalence of skin diseases in the general population ranges from 7.86 percent to 11.16 percent. Skin diseases also have a substantial financial and psychological burden for the patients and their families.² Acne vulgaris is a virtually ubiquitous skin disorder in Westernized cultures, afflicting 79 percent to 95 percent of the teenage population.³ A study from the USA indicated that the prevalence by the mid-teens was virtually 100%.⁴ The global burden of acne is estimated to be 9.4% and it has been ranked as 8th most prevalent disease all over the world.⁵ Globally around 85% of young adults aged 12-25 years, approximately 8% of adults aged 25-34 years, and 3% of adults aged 35-44 years old contain certain degree of acne.⁶ It affects approximately 40-50 million people in the United states per year, resulting in an annual cost of at least \$ 2.5 billion in the United states, Acne accounts for ~0.3% of global disease

burden and ~16% of the dermatologic disease burden.⁷ **According to W.H.O:** Acne is a skin condition that affects the pilosebaceous units in the face, neck, chest, and upper back. It first occurs at the start of puberty, when androgenic stimulation causes excessive sebum development and irregular follicular keratinization, as well as bacterial colonisation (*Propionibacterium acnes*) and local inflammation.⁸ Acne patients are more likely to have low self-esteem, low confidence, and social instability, all of which may lead to anxiety, depression, obsessive compulsive behavior, and suicidal ideation.⁹ it's managed either pharmacologically or surgically in conventional medicines. For its treatment, pharmacological therapy involves topical and systemic therapy. Topical agents include benzoylperoxide, retinoids, azelaic acid, and clindamycin, while systemic treatment includes antibiotics (tetracycline, clindamycin, doxycycline, minocycline, trimethoprim-sulfamethoxazole, rifampin, clindamycin), retinoids (isotretinoin), hormonal therapy (contraceptives), and anti-inflammatory medications. while surgical intervention includes incision and curettage of cysts.¹⁰ The long term use of these treatment modalities are often associated with

certain side effects like erythema, irritation, peeling, burning, drying and bleaching of hair; use of isotretinoin has teratogenic effects and tetracycline causes gastrointestinal discomfort and diarrhea, etc.^{11,12,13}

MATERIAL AND METHODS

Unani classical books available in the National Institute of Unani Medicine library were reviewed for information related to *busoore labaniya* (Acne vulgaris) such as *Al-Qānūn*, *Mizanut-tib*, *Tibb-Akbar*, *Akseer Azam*, *Qarabadeen Azam wa Akmal*, *Haziq*, *Tarjuma Daqa-i-Qul Ilaaj*, *AlHawi*, *Kitabul Mukhtarat fittib*, *Tarjuma zakheera*, *Firdausul hikmat*, *Kitabul Taiseer*, *Kitabul Fakhir*, *Tazkira jaleel* etc. Other published books and journals were also consulted for further details.

DESCRIPTION OF BUSOORE LABANIYA IN UNANI LITERATURE

Busoore Labaniya is a well known disease since Greco Arabic period and was described by various renowned Unani physicians *Ibn Sina*, *Zakariya Razi*, *Raban Tabari*, *Ibn Hubl*, *Dau'd Antaki* and *Akbar Arzani* in their treatises. In Classical Unani literature, there are various synonyms present of Acne vulgaris (*Busoore Labaniya*).i.e. **Ru'khara** in persian,¹⁴ **Muhasa** in hindi,^{14,15} **Zirwan**,¹⁴ **Pimples** in English, **Keel**, **Muhase** in Hindi,¹⁶ **Buthūr-i-Labaniyya**, **Duhniya** in Arabic **Muhāsa**, **Kīl**, **Funsi** in Urdu, **Mukhadushika** in Sanskrit.¹⁷ Acne Vulgaris are whitish eruptions on the nose and face that represent milk droplets or frozen ghee (*Roghan zard*). They typically occur during adolescence.^{14,15,18}

Ibn Sina (980-1037 A.D.) depicts in his treatise "Al Qanoon Fil Tib" the cause of *Busoore Labaniya* as *Ma'dde Sadidiyah* which is directed towards skin for expulsion along with *ghaleez Bukharat*.¹⁹

Hkm Ajmal Khan (1864- 1927) has mentioned in "Haziq" that this ailment is not troublesome but if it is left untreated it may ruin the beauty of body and face.²⁰

Akbar Arzani in his treatise "Mezan al Tib" has mentioned *Khilt Balgham* as the main cause of *Basoore labaniya*.¹⁵

Hkm Azam Khan (1315 A.D.) has mentioned that *Busoore Labaniya* is usually caused by *Ma'dde Sadeedi*.²¹

Ismail Jurjani has quoted in *Zakhira Khawarzam Shahi* that usually morbid substances (*Ma'dah ba'd*) are admixed with good humors that prevent from creating any obnoxious effect over body. Sometimes these good humors get excreted (*Istifragh*) from body thus leaving behind the morbid humors (*Ma'dah ba'd*). Body expels these morbid humors (*Ma'dah ba'd*) towards skin that causes *warm* (swelling) or *busoor* (eruptions) over skin surface.²²

Hkm Ajmal Khan has also mentioned lack of proper personal hygiene, menstrual disorders and unhealthy dietary habits as its causes.²⁰

Dau'd Antaki (died 1599) "Tazkira ulal Albab" has revealed the cause of *Busoore Labaniya* as filthy *Ma'de Balghamiyah*.²³

Historical background

Acne is derived from the Greek word *acme*, which means "point or spot." While acne has been mentioned since the time of Eber's Papyrus, it was only after Fuch coined the word "Acne Vulgaris" that it received a clear definition. Acne's origin dates back to three well-known ancient civilizations: Egyptians, Greeks, and Romans.^{24,25} In the sixth century AD, the term "acne" was first used by the Emperor

Justinian's physician, **Aetius Amidenus**. It was later translated from Greek into Latin, its origin is from the Greek *acme*, meaning peak, or whether acne was actually the original term. In 1842, **Erasmus Wilson** separated acne simplex (acne vulgaris) from acne rosacea.⁷ Acne cannot be regarded as a serious disease or measured in terms of life and death, but it has a nuisance value out of all proportion to its seriousness, affecting young people when they are most sensitive to any disfigurement. **Fuchs** classified acne as Acne Vulgaris, Acne Mentagra, and Acne Rosacea in 1840. This was the first time the word "Acne Vulgaris" was used, and it has persisted on to this day.²⁶

In 1920, **Revlon Corporation's Jack Breitbart** invented benzoyl peroxide for the treatment of acne, which was more effective and smelled better than previous sulphur treatments.

In 1930, laxatives were in common use for treatment of acne.

In 1990, Laser therapy was first used to treat acne, and it is now a commonly used treatment because it removes both new and old marks left by acne, as well as active lesions.

In 2000, The blue/red therapy was developed along with laser therapy for easy treatment of acne. Micro-needling with derma roller has emerged as a new treatment modality for the treatment option of acne scars.

Fernandes, in 2006, developed percutaneous collagen induction therapy with the derma-roller.²⁵

Greco-Arabic (Unani) scholars have described '*Busoore Labaniya*' in their legendary treatise.

- **Ibn Sina (980-1037)** also known as Avicenna in his legendary treatise '*Al Qanoon Fil Tib*' (The Cannon of Medicine) has depicted the etiopathogenesis and clinical presentation of *Busoore Labaniya*.¹⁹
- **Rabban Tabari (770-850 AD)** described Sebaceous glands in detail in his legendary treatise '*Firdous al Hikmah*' (Paradise of Wisdom).²⁷
- **Zakariya Razi (850-923 AD)** also known as Rhazes explained treatment of *Busoore Labaniya* (acne) appearing over the face and nose in his prodigious text *Al Hawi* (The Virtuous Life)²⁸
- **Ibn Hubl (1122-1213)** transcribed in his treatise '*Kitab al Mukhtarat Fil Tib*' (The selected or choice book in medicine) the clinical presentation and cause of *Busoore Labaniya*.²⁹
- **Sabit Bin Qurrah (836-901 AD)** has described in his treatise '*Tajumae Zakheera*' various formulations for treatment of small eruptions (funsi) over the face.³⁰
- **Abu Al Hassan Al Jurjani (12th century AD)** in his monumental omnibus '*Zakira Khawarzam Shahi*' (Thesaurus of the Shah of Khawarazam) has described the etiology of eruptions over the skin surface.²²
- **Akbar Arzani (1772 AD) and Hkm Azam Khan (1813-1902 AD)** have eloquently elucidated the clinical presentation of acne in their texts '*Tibe akbar*', '*Meezan al tib*' and '*Akseer azam*'.^{14,15,18}
- **Dau'd Antaki (1541 AD died 1599)** also referred as *David of Antioch* in his historic text '*Tazkirah oolil albab*' has exposed the humoral cause of acne.²³

PATHOPHYSIOLOGY:

Busoore is a type of *Waram* (inflammation). The anomalies that occur in *busoore* are *Su-i- mizaj*, *Su-i- tarkeeb*, and *Tafaruq-i- ittisal*, and they are caused by *Fasid Ma'dda*, *Az'a*, Irregular diet, and Environmental factor.³¹ If any organ is unable to excrete out *Fuzlat* (waste material) from it or another organ, the *Fuzlat* is disposed of to the weak organ, and the weak organ is unable to dispose the waste as a result of *Nutu* or elevation arises in the organ. If this elevation does not rupture the skin or mucus membrane, then it is known as *Waram*, and if it crushes the elevation it is known as *Busoore*. *Busoore* which are on face and nose and are non-itching, then they are known as *Labaniya*.³² The causes of swelling are always external; *Tabiyat* (medicatrixnaturae) tries to eliminate the morbid material through the skin in the form of swellings and papules.^{33,34} *Tabidat* drives morbid material away from vital organs to the external ones to avoid any damage. If there is excess accumulation of vicious material in the body then *Tabiat* expels it towards skin, which leads to formation of *Busoore* and *Awram*. If these are due to *Quwwat-i-ṭabi'ya* (power of medicatrixnaturae), then severity is very less and easy to treat and if excessive deposition of morbid material is culprit, it is a vicious form of manifestation and very tough to be removed.³⁵ As far as Unani system of medicine is concerned, most of the Unani physicians describe *Busoore Labaniya* in their treatises, and explain its etiopathogenesis on the basis of *maddae sadidiya* (*Suppurative material*). According to them, under favorable conditions *latif bukharat* (*Vapors*) of the body moves towards the surface of skin, where they condensed and transform into *maddae sadidiya* which could not be resolved due to its viscosity.¹⁹

SITES:

Acne is a polymorphic disease that primarily affects the face (99%) but also affects the back (60%) and chest (to a lesser extent) (15%). Acne affects 8% of 25-34 year olds and 3% of 30-44 year olds, despite the fact that it is typically an adolescent condition.¹³ Acne may appear on any hair-bearing skin, but some areas are more vulnerable than others. Larger sebaceous glands and hair follicles with small terminal hairs are found in these areas. The face, especially the cheeks, lower jaw, chin, nose, and forehead, is commonly affected. Back of neck, front of chest, back, and shoulders are other 'favoured areas.' The scalp, however, is not involved.³⁶

CLINICAL FEATURES:

Disease commonly occurs at the age of 16–25 years on face, neck, shoulders, chest and back. Eruptions are red or white in color and size varies from a *Dāna-i-khashkhāsh* (poppy seeds) to a pea size.³⁹ These are small, with rigid base, pointed eruptions, and are red in color; after maturation, they excrete *Kil* and pus.^{37,39} On its tip, small amount of pus is there.³⁹ On pressing these eruptions, they excrete pus and something like solidified oil¹⁸ leaving a pitting scar.³⁹ If *Mawad* is not excreted out, then it leaves a black spot.³⁹ If proper care and treatment is not taken, beauty of face and body become altered.²⁰

MANAGEMENT:

In the Modern aspect, the treatment of acne vulgaris depends on its severity. mild acne treated by benzoyl peroxide, azelaic acid, topical retinoids, moderate acne treated by antibiotics, hormonal treatment, and severe acne treated by surgery and isotretinoin.

General Measures:

Patients with acne are often depressed and may need sympathetic counseling and support.

- a) Proper cleansing
- b) Avoid use of cosmetics
- c) Avoid picking of pimples
- d) Avoid constipation
- e) Diet rich in salads and fruits.¹⁶

Local Treatment:

1. The vitamin A (retinol) analogues (tretinoin, isotretinoin, adapalene, tazarotene) normalize follicular keratinisation, down regulate TLR 2 expression and reduce sebum production.

Isotretinoin gel 0.05% applied once or twice daily

Adapalene gel 0.1% is a retinoid used for mild to moderate acne.

Tazarotene gel 0.1%, applied once daily

2. The antibacterial agent benzoyl peroxide is applied at night for inflammatory lesion. Azelaic acid is bactericidal for p.acnes.⁴⁰

Systemic Treatment:

Topical antibiotics: Topical antibiotics are used in the treatment of mild to moderate inflammatory acne vulgaris. The most commonly prescribed topical antibiotics are Erythromycin and clindamycin.⁴¹

Oral antibiotics: Oral antibiotics are indicated for the management of moderate to severe acne, which is resistant to topical treatment and covers large parts of the body surface.⁴¹ The oral antibiotics most commonly prescribed for acne include Doxycyclines, Minocycline, Macrolides, Clindamycin, Trimethoprim, Cotrimoxazole, and Quinolones all have efficacy in acne.^{41,42}

Hormonal Therapy: Hormonal therapy is an established second line treatment for female patients. Indications of hormonal therapy in acne in girls and women include proven ovarian or adrenal hyperandrogenism, Hormonal therapies used in acne include antiandrogens, estrogens, OCs, low-dose glucocorticoids, or gonadotrophin-releasing hormone (GnRH) agonists.^{7,41}

Surgical Treatment: Comedo extraction, cryotherapy, Pulsed Dye Laser, Intralesional Steroid Therapy, Dermabrasion, chemical peels, Other Methods are Skin Needling (Percutaneous Collagen Induction therapy), Light and laser therapy, Dermal grafting, Silicone Gel, Soft Tissue Augmentation.^{10,43}

USOOLE ILAJ:

1. Treatment of the main cause of disease³⁷
2. *Tanqiya* of whole body.^{18,44}
3. *Tanqiya* of *Balgham* from body.^{15,44}
4. Use of *Mussafi Khoon advia*.^{14,44}
5. Washing of face with *Ja'ali advia*.^{14,21}
6. Local application of *Mujafif* and *Muhallil Advia*.^{14,19,38}
7. Correction of digestion³⁹

ILAJ (Treatment):

It comprises of *Ilaj Bil Tadbeer*, *Ilaj Bil Dawa*, and *Ilaj Bil Ghiza*.

1. Ilaj Bil Tadbeer:

- *Tanqiya* of body and head by:
- *Fas'd* of *Sarar'o*.¹⁴ and vessels of nose.¹⁴
- *Istefragh balgham* from the body and brain¹⁸
- *Ishaal* ^{14,18,38}
- Oral intake of decoction of *Aftimoon*.
- Oral intake of *Habe Qooqaya* or *Habe Ayaraj* or *Habe Sib'r*.

2. Ilaj Bil Dawa:

- It encompasses systemic therapy and topical therapy.
- *Istefragh balgham* (evacuation of phlegm) is done by using *Munziz* (like *Bekh Kasni*, *Asl us soos*, *Badiyan*, *Unnab*) and *Mushil* (like *Turbud*, *Roghan bedanir*) therapy
- *Jali advia* like *Sandal safaid*, *Post sangtara*, *Haldi*, *Masoor* etc.
- *Muhallil advia* are *Khatmi*, *Methi*, *Alsi*.

Systemic therapy: Unani physicians *Ibn sina*, *Hkm Ajmal khan*, *Razi*, *Akbar Arzani* mention in their treatise multiple preparations (*nuskha*) for *Busoore labaniya*.

- *Joshanda* for *Mussafi Khoon advia* as: *Shahitra* 4gms, *Chraita* 4gms, *Sarfhooka* 4gms, *Gul Mundi* 4gms, *Unnab* 5no, *Shakar* 6 gms.
- Formulations: *Itriphal Shahitra* at bed time in dosage of 7gms.
- *Majoon Ushba* 12 gms at bed time.²⁰
- *Qurse Maveezi* 2 in no. in morning and *Mugarabi* 2 in no. in evening with water.²⁰

Topical therapy:

1. Formulations of *Ub'tan*:
 - *Magh'z Gungchi Safaid* is mixed with *Roghan Kunjad* and applied over the face at night and washed next morning.¹⁴
2. Formulations of *Zimad*:
 - *Saleekha* along with *Shah'd*.¹⁴
 - *Safeedah* together with *Roghan gul*.¹⁴
 - *Kharbaq* 2 parts, *Bekhe So'san* 1 part admixed with *Sirka*.^{18,28}
 - *Al'si*, *Gule Surkh*, *Kalonji* together with *Sirka*.¹⁸
3. Formulations of *Tila*:
 - *Murdarsang* 3.5 gms, *Sib'r Saqootri* 17.5 gms, admixed with *Roghan gul* and *Sirka*. (*Ratab* eruptions)¹⁴
 - *Khak'si*, *Sandal Surkh*, *Sandal Safaid* together with *Gulab*.¹⁴
 - *Shuneez* mixed with *Sirka*.^{28,38}
3. **Ilaj Bil Ghiza:**
 - Use of easily digestible foods viz. soups and chapatti.

- Use of Vegetables possessing cold properties.
- Use only *Ghiza-i-Sāda* (simple food items) like *Turai* (ridge gourd), *Kaddu* (pumpkin), *Palak* (spinach), *Shalgham* (turnip), *Mung* (green gram), *Arhar* (split red gram), mutton, etc.^{37,39}
- Regular intake of fruits i.e. oranges, pomegranates, apples and pears.
- Avoid *Raddi (waste)*, *Fasid* (Putrified) and *badi* (flatulent) *agziyah* like *mash ki daal* (black gram), *matar* (pea), *gobhi* (cauliflower)
- Avoid to sharab intake.²⁰

RESULT AND DISCUSSION:

Despite the numerous successful therapies for *acne vulgaris* currently available but several patients struggle to respond adequately and experience side effects. Unani system of medicine contains successful and safe treatment of *Acne vulgaris*, so there is need to explore the Unani treatment of *Acne vulgaris* in general public for safe, economical and effective treatment. *Mujaffif*, *Muhallil* and *Jali Advia* are highly effective for the management of *Busoore labaniya*. Treatment is aimed at improving appearance, discomfort, and psychological wellbeing. It is an important disorder to treat, and it should not be dismissed as something trivial or purely cosmetic. *Ghiza wa Parhez* also play an important role in the management of *Busoore labaniya*.

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Conflict of Interest

The authors report no conflict of interest.

Ethical Approval

It is not applicable.

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