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Role of Unani medicine in the management of acne: *Busur labaniyya*

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Abstract

Now a day's acne is a common disease reported in the teenage population. *Propionibacterium acnes* and *Staphylococcus epidermidis* are responsible for the development of various forms of *acne vulgaris*. Acne is a chronic, inflammatory skin condition resulting in pimples and spot formation on the face, shoulders, back, neck, chest, and upper arms. It has both inflammatory (papules, pustules and nodules) and non-inflammatory (comedones, open and closed) lesions. In acne there occur involvements of the oil glands at the base of hair follicles. It can occur at any age but commonly seen at the time of puberty, when the sebaceous glands get activated. Sebaceous glands produce oil, on stimulation by male hormones which

are produced by the adrenal glands in both males and female body. *Acne vulgaris* affects both self-esteem and psychosocial development of the person. Treatment of acne can be done by some therapies such as topical, systemic, hormonal, herbal and combination therapy. In many cases, conventional treatment fails and the patients become helpless. Increased resistance has developed in acne causing bacteria, due of excessive use of antibiotics in its management for long durations. Detailed management of the disease is mentioned by Unani physicians in their classical literature which is safe and effective. These include number of single herbs and compound herbal formulas as well as dieto-therapy and other regimes.

Keywords: *Acne vulgaris*, busur labaniyya, unani medicine, sebaceous, inflammatory

Introduction

The term acne is derived from Greek word "acne" meaning "prime of life". *Acne vulgaris* is a chronic disease characterized by seborrhea (red skin), non-inflammatory (open and closed comedones), inflammatory lesion (papules, pustules, and nodules) and sometimes lead to scar formation also occurs. Its prevalence in adolescents is reported between 28.9-93.3 %. It usually begins in the after ten years of age and lasts for 5-10 years. It may persist in adulthood also. Its prevalence is equally reported in male and female. Globally, 650 million people are suffering from acne. According to WHO specific prevalence of *acne vulgaris* was 9.4 % which was more than any skin disease (except fungal infections and viral warts) ^[1, 2].

Exact etiology of this disease is unknown, but its pathogenesis is multifactorial often associated with propionibacterium infection, chronic inflammatory reactions, abnormal follicular keratinization and hyper secretion of sebaceous glands. Sometimes hormones like androgens, progesterone also stimulate the excess release of sebum thus breaking cellular wall and promoting growth of bacteria's. Family history of acne high glycemic load and unhealthy diet can be considered as important exciting factors. Although acne is not a life-threatening disease but it can have detrimental effects on the quality of life of affected individuals ^[3, 4, 5].

Unani system of medicine; this is because of whitish discharge which resembles milk. It is also termed as mohasa or keel. Ibne Sina renowned Unani physician mentioned in his treatise, Canon of Medicine, that mohasa are small white eruptions that appears on the nose, cheeks and resembles condensed drops of milk ^[8]. It may be considered almost a universal disease affecting all races and occurring in 95% of boys and 83% of girls. The prevalence of acne in adolescents, adults and ethnic groups varies among countries ^[9]. Acne was observed in 27.7% of students' aged 10-12yrs and in 93.3% of adolescents aged 16-18yrs in a study conducted in Australia. A study in Peru reported a prevalence of 16.33% and 71.23%, in students aged 12 and 17yrs, respectively ^[9]. In Belgium and China, high prevalence in adolescents has been reported i.e. about 90%, while in England it is estimated at 50%. It is generally assumed that acne occurs in 70-80% of adolescents ^[10, 11]. In the US, acne is the fourth most common reason for seeking medical consultation among the patients aged 11-21yrs, and it accounts for 4% of all visits from patients aged 15-19yrs ^[12, 13]. In Brazil, 14% of all dermatological consultations are because of acne and it affects genders, different ethnicities and all age groups, predominantly in the first three decades of life ^[14]. Prevalence rates ranging from 28.9-91.3% has been shown in different studies in adolescents. Excessive use of antibiotics for long periods of time has led to the

increased resistance in acne causing bacteria i.e. *P. acnes*, *S. epidermidis* and *S. aureus*. The development of antibiotic resistance is multifactorial, including the specific nature of the relationship of bacteria to antibiotics, antibacterial usage, host characteristics, and environmental factors.

Methodology

The author searched the Unani medicine books for information related to busūr labaniyya. Important textbooks of Unani medicine were reviewed. Al-Qanoon fil Tib of Ibne Sina, Al-Moalijat Buqratiya of Abu al hasan bin Mohammad Tabri, Kitab Al-Mansuri of Zakariya Razi, Ghina Muna of MH Quamri, Kitab al-Mukhtarat fil-Tib of Ibn Hubl Baghdadi, Khazainatul-Advia of Najmul Ghani for information on busūr labaniyya and Unani drugs. Major

scientific databases namely Pubmed, Science Direct and Springer were searched. The search words used were 'Acne Vulgaris and Unani', 'Acne Vulgaris and Busūr Labaniyya', 'Herbal Medicines and Acne Vulgaris'. Internet search on the same search engines and also on Google Scholar was done to search for scientific evidence regarding Unani drugs in the management of busūr labaniyya.

Discussion

Acne may be classified according to predominance of specific skin lesions ^[19] (Fig.1).

- Comedonal (non-inflammatory)-mild
- Papular (inflammatory)-mild to moderate
- Pustular (inflammatory)-moderate
- Nodulocystic-severe

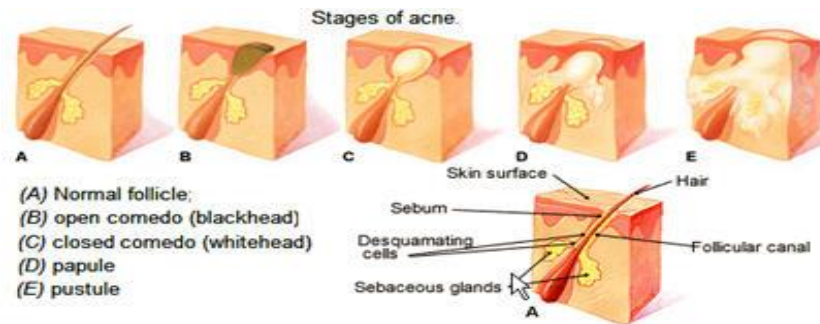


Fig 1

Hyperactivity of ghudud-e-dohaniya (sebaceous glands) has been considered as main cause of busūr labaniyya by Unani physicians. This hyperactivity causes increased production of oily material, which gets clogged into the openings of sebaceous glands, these glands are then inflamed and get suppurated and filled with pus ^[22, 23, 24]. Maddah-e-sadeedi (Ichorous matter) stuck within skin pores has been considered a causative factor ^[25]. Due to efrat-e-hararat (increased abnormal heat), maddah-e-sadeedi reaches to the skin and does not resolve easily from the pores ^[22] or it can be said that madda-e-sadeediyah originates due to the bukharat-e-badan (gaseous/vaporous matter), which are transferred towards the skin ^[8]. These vaporous materials accumulate in the skin and their raqeeq (light) ingredients get transformed into a thick fluid due to the affect of air. These thick materials block the skin pores as they are not easily resolved and transforms into liquid of busūr labaniyya ^[26]. There are many causes which lead to the above described pathogenesis, such as disturbances of the blood (impurities), use of hot diets, use of

alcohol, indigestion, menstrual disturbances, etc ^[22, 27].

Usool-e-Ilaaj (principle of treatment)

- Tanqiya-i Badan O Dimagh (evacuation of body and brain) followed by Itaf-e-Dam (to modulate the heat of sanguine) ^[25].
- Tajliya (topical cleansing) by Jali Adviya (detergent drugs) ^[25].
- Tahlil o Tajfif (resolution & desiccation) when Tajliya (cleansing) is ineffective ^[25].

Unani medicines famous for their efficacy in busūr labaniyya The use of natural remedies is a highly approached in human health ^[28], in particular cosmetics with an ongoing search for novel biologically active botanical agents ^[29]. Unani medicinal plants have been used in acne treatment. Therefore, plants that are currently used and those reported in research studies to be effective in the treatment of acne vulgaris are summarized in Table. 1:

Table 1: Unani medicines effective in the treatment of acne vulgaris

S.R No	Medicinal Plant	Unani Name	Action in Acne	Reference
1.	<i>Achyrathes aspera</i>	Chirchita	Anti-Androgen	30
2.	<i>Allovera</i>	Elva	Anti-bacterial, Anti-inflammatory	31
3.	<i>Allium cepa</i>	Piyaz	Anti-Bacterial, Anti-fungal	32
4.	<i>Andrographis paniculata</i>	Chiraita	Anti-Inflammatory, Anti-Androgen, Blood purifier	33
5.	<i>Asparagus officinalis</i> Linn.	Haleeyoon	Deobstruent	5
6.	<i>Azadirachta indica</i>	Neem	Anti-bacterial, Anti-inflammatory, Blood purifier	34
7.	<i>Boswellia serrata</i> Roxb.	Kundur	Anti-septic	34
8.	<i>Camellia sinensis</i> Linn.	Chai Siyah	5 α - reductase inhibitory, Anti-inflammatory	35
9.	<i>Casuarina equisetifolia</i>	Jangli Jhau	Anti-bacterial, Anti-inflammatory	36
10.	<i>Cinnamomum zeylanicum</i> Blume	Darchini	Anti-bacterial, Anti-inflammatory deobstruent, absorbefaciant	37
11.	<i>Calendula officinalis</i>	Gule Ashrafi	Anti-bacterial, Anti-inflammatory	38

12.	<i>Curcuma longa</i>	Haldi	Anti-bacterial, Anti-inflammatory	32
13.	<i>Glycyrrhiza glabra</i>	Aslussus	Anti-bacterial, Anti-inflammatory	40
14.	<i>Hemidesmus indicus</i>	Ushba	Anti-bacterial, Anti-inflammatory, Blood Purifier	32
15.	<i>Lavendula stoechas</i>	Ustukhuddus	Waste remover	5
16.	<i>Matricaria chamomilla Linn.</i>	Baboona	Resolvent, detergent, Anti-inflammatory	34
17.	<i>Ocimum sanctum</i>	Rehan	Anti-bacterial, Anti-inflammatory, Anti-oxidant	41
18.	<i>Olea europaea Linn.</i>	Zaitoon	Anti-bacterial, Anti-inflammatory demulcent, emollient	34
19.	<i>Papaver somniferum L.</i>	Tukhm Khaskhas	Anti-bacterial, mild astringent, emollient	37
20.	<i>Psoralea corylifolia</i>	Babchi	Anti-bacterial	3
21.	<i>Rauvolfia serpentina</i>	Asrol	Anti-helminthic, Anti-bacterial, Anti-inflammatory	42
22.	<i>Rosa damascus</i>	Gule surkh	Emollient, Anti-inflammatory	5
23.	<i>Terminallia chebula</i>	Halela	Anti-bacterial, Anti-inflammatory	32
24.	<i>Tinospora cardifolia</i>	Gilo	Blood Purifier, Anti-oxidant	3
25.	<i>Vetiveria zizanioides</i>	Khus	Refrigerant, detergent, anti-septic	34
26.	<i>Withomnina somnifera</i>	Asgand	Anti-bacterial, Anti-inflammatory	32

Conclusion

Busūr labaniyya (acne vulgaris) is a multifactorial disease and many important aspects are required to be considered for its treatment. An integrated therapeutic approach can be adapted to attain the desired results. However, there are many medicines to choose from, plants are the natural source of medicines, which play an important role in the treatment of acne, without side effects. Therefore, they serve as commonly used alternate to synthetic medicines for acne. Further studies are also required to establish the effectiveness, safety, cost-effectiveness, and mechanisms of action of these natural drugs.

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