



Prevalence Of Acne Vulgaris (*Basoor-E-Labaniya*) In Age Groups Of 15 To 30 Years- A Review Article

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Abstract:

Basoor Labaniya (Acne vulgaris) is one of the oldest and commonest dermatological problem, which are known since antiquity and it has been called by different names in different parts of the world. It is a disorder of pilosebaceous unit which mainly affects the peripubertal population and clinically manifests as comedones (open/closed), papules, pustules, nodules, and cysts and heals with scars. As per Unani classics, Basoor Labaniya (Acne vulgaris) is termed as Muhāsā or Kīl characterised by small, white eruptions on the nose and cheeks, which resemble a condensed milk drop. Renowned Unani physicians Zakariyya Rāzī, Ibn Hubal, Ibn sīnā, Dā'ūd Antāki and Hakīm Akbar Arzānī have stated that, it is a dermatological disorder of adolescents that present as whitish eruptions over the face caused by M'ādda Sadīdiya (Suppurative material) or preponderance of Ghalīz (filthy) M'ādda Balghamiyya. In Unani Medicine, Basoor Labaniya (Acne vulgaris) is a well recognize disease entity and has been treated successfully since antiquity with various single and compound drugs having Jāli (Detergent), Muhalil (Resolvent) and Mujaffif (Desiccative), Musaffi-i Khūn advia properties. In this review, we tried to compile all the available information till date from both unani and other published scientific papers and textbooks which will fruitful for further research.

Keywords: Basoor Labaniya, Acne vulgaris, Unani, Management.

I. Introduction Acne Vulgaris (Basoor Labaniya)

Skin is the largest organ enveloping the whole body and performing multiple functions, including temperature regulation, fluid balance, sensory perception, immune responses and protection ultra violet damage etc. Skin disease is one of the most common human illnesses. It pervades all cultures, occurs at all age and affecting 30-70% of individuals ^[1]. Acne is one of them which consistently represent the top

eighth on the list of the world's most common diseases. 70% of the population has clinically significant acne at some stage between adolescence and early adulthood [2]. It is the most frequent disorder treated by dermatologists [3]. It is a pleomorphic skin disorder and can be noticed at any time during life. But most frequently, it presents among ages of 12–24 years which estimates 85% of population affected [4]. According to World health organization, Acne is a skin condition that affects pilo-sebaceous units in face, chest, neck, and upper back. As per Unani literature, Basoor Labaniya is derived from an Arabic word which is composed of two components, Buthūr that means Boil and Labaniya means Milk [5, 6]. According to a great Unani physician Qarshī, it is a Mutā'ddi (infectious) disorder characterised by small white eruptions on the face, nose, and cheeks. When pressed, a cheesy stuff comes out [7]. Ibn Sīnā mentioned in Al-Qānūn that Basoor Labaniya (Acne vulgaris) is characterized by small white eruptions on the nose and cheeks that resemble condensed milk drops [8]. According to Masīḥul Mulk, Hakīm Ajmal Khān, sometimes small, pointed, firm and bright red colour eruptions appear on face, neck, cheeks and nose. After maturity, they discharge kīl as well as some pus. [8]

II. Historical Review of Acne Vulgaris (Basoor Labaniya)

Basoor Labaniya (Acne vulgaris) is one of the oldest and commonest skin diseases which are known since antiquity and it has been called by different names in different parts of the world. The history of Basoor Labaniya is very old. Since ancient times, Basoor Labaniya has been also known as a serious skin disorder. It frequently affects young people, when they are most susceptible to any disfigurement. Acne has been known back to certain well-known ancient civilizations, including as the Greeks, Romans, and Egyptians.



Fig. 1 Acne Vulgaris-A skin Disease in male and female

Renowned Unani scholars have detailed a dermatological disorder called Basoor Labaniya in their illustrative literature, which is clinically similar to Acne vulgaris today. In 770-850 AD Abu al-Hasan Ali ibn Sahl Rabba-al Ṭabarī described in his famous book 'Firdous al-Hikmah' (paradise of wisdom) a full explanation of sebaceous glands [23]. In 836-901 AD Al-Ṣābi' Thābit ibn Qurrah al-Ḥarrānī has

described various unani compound formulations for the treatment of funsī (small eruptions) over the face [24]. Abū Bakr Muhammad ibn Zakariyyā' al-Rāzi explained the treatment of Basoor Labaniya (Acne vulgaris) in his famous book *Al-Hāwī* (The Virtuous Life) [15]. In 980-1037 AD Abū 'Alī al-Husayn ibn 'Abdullāh Ibn-Sīnā (Avicenna) in his renowned book *Al-Qānūn fi'l Tib* (The Canon of Medicine) had explained the clinical presentation and etiopathogenesis of Basoor Labaniya (Acne vulgaris) [25]. Ibn Hubal (1122-1213 AD) explained in his famous book '*Kitāb al-Mukhtārāt fi'l tib*' about the cause and clinical presentation of Basoor Labaniya. Abu Al-Hassan 'Ali ibn 'Abd al- Aziza al-Jurjāni (12th century AD) in his renowned book *Zakhīra Khawārizm Shāhī* (Thesaurus of the Shāh of Khawārizm) has explained the etiology of skin eruptions [24]. In 1542-1599 Dau'd ibn Umar al-Antāki explained in his famous book '*Tadhkirah ūli al- Albāb*' about the humoral cause of Basoor Labaniya. In 1772 AD, Muhammad Akbar Arzāni and in 1813-1902 AD, Mohammad Ā'zam Khān had explained the clinical presentation of Basoor Labaniya in their famous book '*Tiḅ-i Akbar*', '*Mīzān al-Tiḅ*' and '*Aksīr-i Ā'zam*' [22].

III. Epidemiology Acne Vulgaris (Basoor Labaniya)

In 2016, 681.2 million people worldwide affected from Basoor Labaniya (Acne vulgaris). From 612 million in 2006, this was an increase of 10%. In 2010, acne ranked 8th in the list of most prevalent disease in the world, with a global prevalence of 645 million [32]. According to epidemiological data, acne is a common condition affecting 80% of young people (12-18 years age group) and 5% of females and 1% of males in adulthood. In a cross-sectional study, Halvorson et al. reported that suicidal thoughts and serious acne were three times more common in males than mild acne. Acne was shown to be more frequent in high socioeconomic groups in a cross-sectional study from Saudi Arabia. In the United States, about three billion dollars is wasted each year in direct and indirect treatment costs, as well as lost productivity.



Fig. 2 Acne Vulgaris in ancient Greek and Rome

IV. Etiopathogenesis of Acne Vulgaris (Basoor Labaniya)

Maghziyāt like peanut (*Arachis hypogaea*), Pista (*Pistacia vera*), Chilghoza (*Pinus gerardiana*), oily and sweet food items Exogenous and endogenous variables play a role in developing acne vulgaris.

Acne is caused by four basic pathogenic factors that interact in a complicated way to form lesions.

- Increased production of sebum [seborrhea] and hyperplasia of the sebaceous glands.
- Alteration in the keratinization of skin
- Follicular colonization
- Release of inflammatory mediators into the skin

Other contributing factors include hormonal influences from androgens and estrogens, such as dehydroepiandrosterone sulfate, which increases sebum production in pre-teenagers, leading to acne. The main cause of Basoor Labaniya (Acne vulgaris), according to Unani physicians, is hyperactivity of the Ghudud-i Dohniyya (sebaceous glands), which leads to increased production of oily substance (sebum). The apertures of these glands become blocked with greasy substances. These glands become inflamed and packed with Mādda-i Sadīdiyya as a result of this (Pus). Due to increased Ifrāt-ī Harārat (abnormal heat), the Mādda-i Sadīdiyya (pus) penetrates the skin and is difficult to remove. Mādda-i Sadīdiyya, in other words, is caused by Bukhārāt-i Badan and then moves towards the skin. The yellow acne liquid is made up of body vapours (Bukhārāt-i Badan) that have accumulated in the skin, and its light ingredients (Raqīq M'ādda) are transformed into a dense fluid owing to the effect of air, and these thick materials are difficult to resolve, resulting in clogged pores

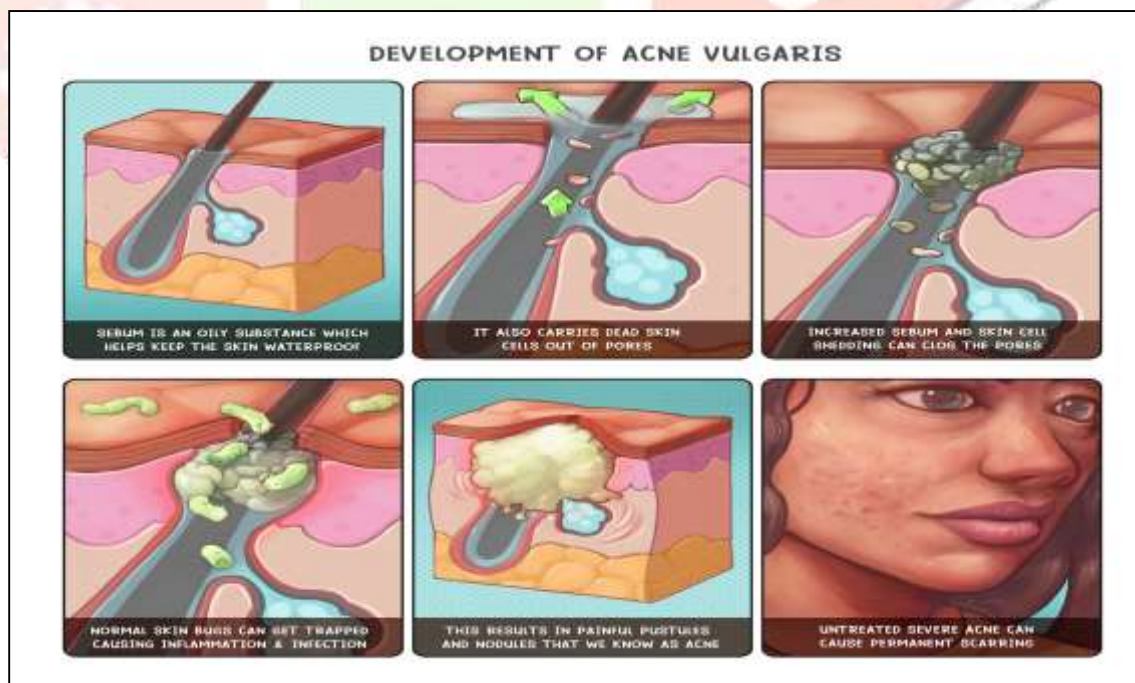


Fig. 3 Development of Acne Vulgaris

V. Asbāb-i-Marḍ of Acne Vulgaris (Basoor Labaniya) (Causes of Disease)

- Blockage of the sebaceous gland which produces fat
- Young age
- Increased secretion of male sex hormone after puberty (Testosterone)
- Propioni bacterium acnes^[9]
- Indigestion
- Qillat-i Dam (anaemia)
- Fasād-i Dam (Impurities of blood)
- Hārr food items like Kabāb etc
- Qābḍ (Constipation)^[9]
- Shiddat-i Harārat (extreme hotness)
- Stoppage of Khūn-i Bawāsīr (hemorrhoidal blood)
- Irregular menses
- Pregnancy
- Eḥtebās-i Tams (amenorrhea)
- Thaḳīl-wa raddī food items
- Sharāb (alcohol)
- More exposure to sunlight
- Zardāb-i Mādda (yellow watery matter)
- Emotional stress
- Imtilā-i khūn (accumulation of excess blood) Wa-ḥiddāt-i-Dam (hotness of blood)
- Hereditary
- Air pollution
- Use of oil-based soap and cream
- Excessive humidity in environment

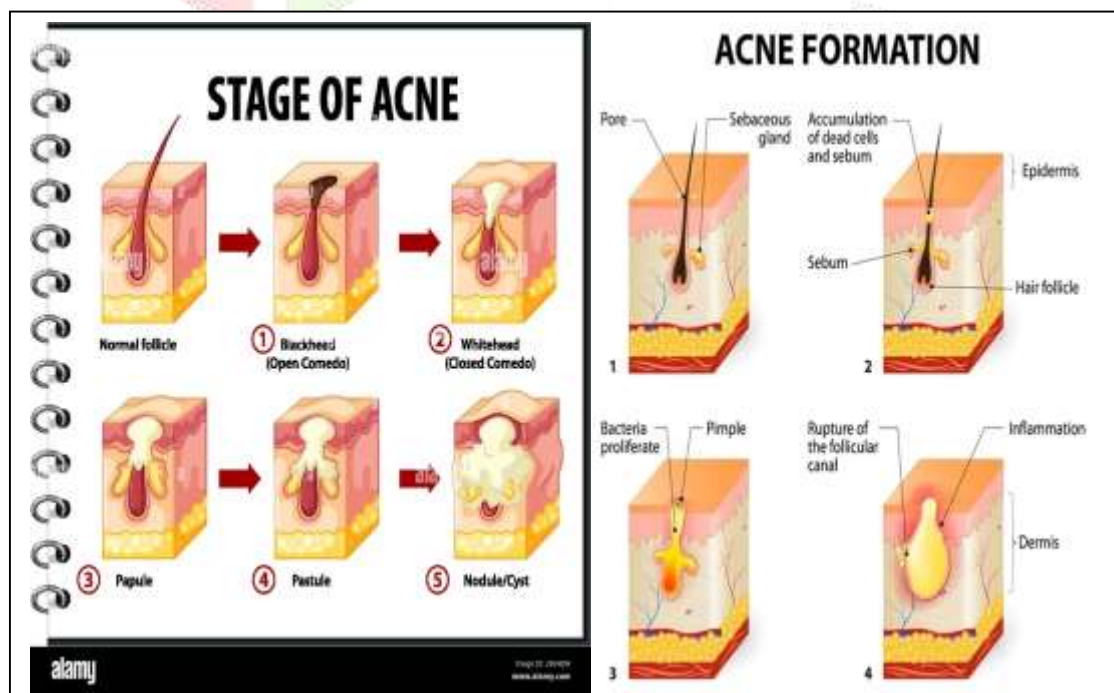


Fig. 4 Stages and formation of Acne Vulgaris

VI. Risk factor of Acne Vulgaris (Basoor Labaniya)

A. Age: People of any age group can get acne but common in teenagers.

B. Hormonal changes: Hormonal changes play an essential role in pathogenesis. The main influence of androgen on acne is the proliferation of sebocytes and infra infundibular keratinocytes.

C. Genetic factors

Acne prevalence is influenced by a number of factors, one of which is genetic. A substantial family predisposition for acne has been shown in several researches from France, China, and the United Kingdom. A positive family history of acne increases the likelihood of acne by about 2.3 percent to 4.69 percent.

D. Diet: Food products which contain 5 alpha-reduced steroid hormones and other steroid precursors of DHT drive sebaceous gland function. Milk direct increases the IGF-1 level and these levels during the teenagers closely parallel to acne activity. High glycemic load diet worsening the acne. 30% dietary fiber per day and a low-fat diet are reported to decrease the acne instances.

E. Socioeconomic factors: A cross-sectional study of healthy adolescents of Arequipa and Peru, reported the low prevalence of acne. In another study on 9955 school children age 6-16 years in a rural region in Brazil, only 2.7% were found to suffer Acne vulgaris.

F. Smoking: It is reported that smoking is one of the modifiable risk factors that alter the risk of acne. Schafer et.al observed a significant dose-dependent relationship between acne and cigarette consumption.

G. Sweating and Exercise:

Short term effect of exercise-induced acne is noticed^[15].

H. Other factors

External factors occasionally contribute to acne, like stress, mechanical trauma, cosmetics, some tropical and oral medications (corticosteroid, iodine, anti-epileptics).

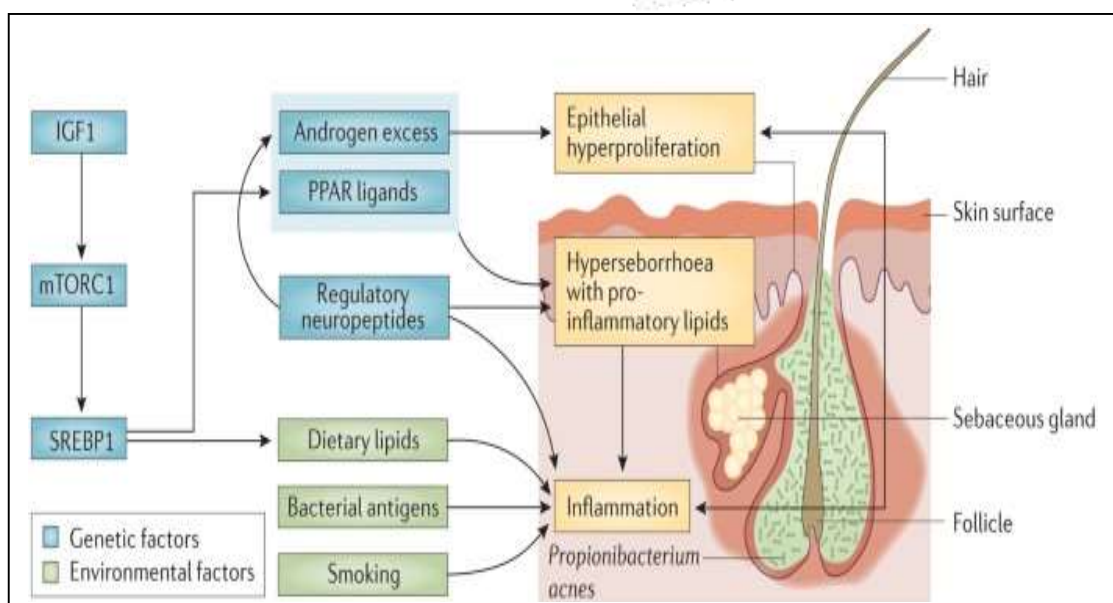


Fig. 5 Anatomy of skin in Acne Vulgaris

VII. Clinical Presentation of Acne Vulgaris (Basoor Labaniya)

Renowned Unani physicians quoted that this disorder is common in adolescents, predominantly in males. This skin condition is evident with the presence of eruptions resembling to milk drops over the face, forehead, nose, and arms. It may also associated with Ihtibās-i Tams (amenorrhea)^[15]. The lesions of acne are polymorphic consisting of comedones, papules, pustules, nodules, cysts, and scars. Post-inflammatory pigmentation and pyogenic granulomas may also occur.

- A. Non-inflammatory lesion or Obstructive lesion: Whitehead [Closed comedones] and Blackhead (Open comedones)
- B. Inflammatory lesion: Papules, Pustule, Cysts, Scars

VIII. Microcomedone:

Microcomedones are the primary lesion of acne. The exact trigger is unknown, but a certain fraction of the sebum, like squalene and linoleic acid, plays a very important role.

- A. **Obstructive or Non-inflammatory lesions (Comedones):** Acne comes in the form of comedones that appear 1 to 2 years before puberty.

- **Closed comedones:**

The Whitehead (closed comedones) characterized a pilosebaceous duct distended with thickened ductal material and it is generally 0.1-3.0 mm in diameter. It does not covered by the epidermis and takes approximately five months to reach this degree of maturity. Twenty-five percent resolve within 3-4 days and 75 % develop into inflamed lesions.

- **Open comedones**

Blackheads (Open comedones) are one that protrudes from the follicle and not covered by the epidermis. The start of the blackhead is marked by the enlargement of the orifice by a projecting mass of darkly coloured horny substance with a diameter of 5 mm, occasionally even more. The epithelial sac has an enlarged aperture and is filled with keratin and lipids. There are a large number of enzymatically active melanocytes. Whiteheads and blackheads have various colors because of this.

- B. **Inflammatory lesions**

- **Pustule:** These are lesions having a visible purulent center ^[66]. Pustules usually begin as solid lesions which soon liquefy and represent a partial break down of the comedones. The pustule's roof usually breaks, enabling pus to escape. The comedo's beaten fragments are then expelled, and healing takes place in a manner that is extremely similar to the typical wound healing.
- **Papule:** The comedo collapses, resulting in a deep-seated, long-lasting papule that can be considered as tiny nodules (diameter < 5 mm). Papules present superficially may resolve in 5-10 days, leaving a small scar and causing post-inflammatory hyperpigmentation. Deep papules usually have more intense, takes more time to resolve and may form scar.
- **Nodule:** The nodule represents the total disintegration of a comedo with far-flung consequence. Two or more adjacent comedones often break down and fuse to create these dreadful lesions.
- **Cyst:** Acne cysts, also known as big secondary comedones, are the result of repeated punctures and re-encapsulation. Cysts can be found all over acne's region, but they're most prevalent on the trunk. They

are soft and fluctuant, slowly enlarge over time. The epithelial wall becomes quite thin and can easily rupture by trauma. Ruptured cysts leave abscesses in their walls which never disappear spontaneously and healing two results that are, rupture with abscess formation, a bad scar formation, or surgical removal of the cyst wall.

- **Scars:** Acne scars are the second most common symptom after comedones. The most severe effect is permanent scarring

IX. Clinical Manifestation of Acne Vulgaris (Basoor Labaniya)

The clinical manifestations of acne in children vary depending on age.

- **Infantile acne** -Infantile acne typically occurs at the age of 6 to 16 months (median 9 months) with typical acne lesions distributed over the cheeks. Mixed, inflammatory papules and pustules and comedones are common, with nodular lesions being infrequently seen in this age group. In most cases, babies with infantile acne do not have other signs or symptoms of hyper-androgenism. The eruption is usually self-limited and generally resolves spontaneously by the end of the first year of life but may persist until two years of age. Scarring, presenting as typically small, atrophic pits, may result in up to 50 percent of affected infants.
- **Mid-childhood acne** -Mid-childhood acne presents in children of one to seven years of age with comedones and inflammatory lesions typically distributed over the forehead, cheeks, and nose. Because children aged one to seven years do not produce significant amounts of androgens, acne in this age group suggests an endocrine abnormality that warrants evaluation by a pediatric endocrinologist.
- **Preadolescent acne** -Preadolescent acne usually presents in children aged 7 to 12 years, predominantly with mild to moderate numbers of comedones in the T-zone (ie. forehead, nose, and chin) and, less frequently, with papules, pustules, and nodules.

X. Diagnosis of Acne Vulgaris (Basoor Labaniya)

A. History and physical examination -The diagnosis of acne in any age group is made clinically in most cases, based on history and recognition of classic skin lesions (i. e. open and closed comedones, inflammatory papules and pustules, nodules). Resultant post inflammatory erythema or hyperpigmentation, as well as scarring, should be noted:

- **History** – Relevant history includes age of onset; history of acne in parents and siblings; and medical and medication history, including use of oral, inhaled, or topical corticosteroids and other agents that may elicit acneiform drug eruptions (eg, cyclosporine, chemotherapy agents). Accidental exposure to exogenous androgens (eg. androgen-containing topical preparations or supplements used by parents or caregivers) should also be investigated.
- **Physical examination** – All children with acne should undergo a comprehensive physical examination for signs of androgen excess and advanced Tanner stage. Children with premature adrenarche and subsequent pubarche will exhibit pubic hair and adult-type body odor without other signs of secondary sex development. The presence of additional secondary sexual characteristics, such as breast development, testicular enlargement, atypical genitalia, accelerated growth, and

muscular habitus, raise suspicion of disorders associated with precocious puberty or other causes of hyper-androgenism, such as non-classic (late-onset) congenital adrenal hyperplasia, androgen-secreting tumors, or exposure to exogenous androgens.

B. Initial workup-

Following clinical examination and Tanner staging, the initial workup for suspected hyperandrogenism includes obtaining a bone age radiograph. If bone age is advanced compared with chronologic and height age, referral to pediatric endocrinology is recommended to guide further workup and laboratory testing.

C. Indications for pediatric endocrinology referral -Referral to pediatric endocrinology for evaluation and workup is warranted for children with acne and who present signs of:

- **Premature adrenarche and/or premature pubarche**-Presence of sexual pubic or axillary hair before age eight years in females and age nine years in males and advanced bone age
- **Adrenal hyperandrogenism** -Increased height velocity, development of male secondary sexual characteristics in prepubertal males, hirsutism and clitoromegaly in prepubertal females
- **Precocious puberty** -Appearance of secondary sex characteristics, such as breast development before age eight years in females and testicular enlargement before age nine years in males

C. Skin biopsy and histopathology - Histopathology is rarely required to make a diagnosis of acne. In atypical cases where the diagnosis is unclear, a small 2 to 3 mm punch biopsy of a characteristic lesion in the least aesthetically sensitive area (away from the central face and cheeks) is recommended. On histopathology, comedones will demonstrate an open or closed, follicular orifice with a keratinaceous plug and mild, perifollicular inflammation. With follicle wall rupture, bacteria and mixed inflammation (neutrophils, lymphocytes, histiocytes) surround the pilosebaceous unit. Foreign body type multinuclear giant cells and granulomatous inflammation may be seen. Fibrosis and scarring are seen in later lesions.



Fig. 6 Anatomy of skin during Acne Vulgaris

X. Infants and children less than 7 years in Acne Vulgaris (Basoor Labaniya)

A. Mild acne

Mild infantile and mid-childhood acne can be managed with topical treatments. A low-strength topical retinoid (tretinoin 0.025% cream or adapalene 0.1% gel) or benzoyl peroxide 2.5% cream applied once daily are typically used. Because benzoyl peroxide can inactivate topical generic tretinoin formulations, the two should not be applied concurrently. Benzoyl peroxide washes should be avoided, or used with caution, to prevent eye irritation or accidental ingestion. Alternatively, and particularly if scarring is noted, a fixed combination product (adapalene 0.1% benzoyl peroxide 2.5% gel) applied once daily can be used. For infantile acne, treatments should be continued for at least three to four months and continued until the acne is clear and the baby is out of the typical window period, approximately two years of age. For mid-childhood acne, treatments may need to be continued throughout adolescence. In an open-label study, 12 infants with mild to moderate acne were treated with adapalene 0.1% gel once daily, with a median clearance time of 3.4 months. Erythema, burning, and pruritus were noted in up to one-third of patients, but none discontinued therapy.

B. Moderate to severe acne

For children with moderate acne or more pronounced, inflammatory papules, systemic antibiotic therapy may be required in addition to topical retinoid and benzoyl peroxide therapy as described for mild acne. Antibiotic mono-therapy is not recommended. While data in childhood acne are lacking, in general, any use of topical or systemic antibiotics in acne should be combined with topical benzoyl peroxide to prevent microbial resistance when possible:

- **Choice of oral antibiotic**-Macrolides (erythromycin, azithromycin) are the antibiotics of choice for children younger than eight years. Although tetracyclines are the preferred antibiotics for the treatment of moderate to severe acne in adolescents and adults, they should **not** be given to children younger than eight years of age. Successful use of trimethoprim 100 mg twice daily has been reported in an infant with erythromycin-resistant acne.
- **Dosing** – Dosing regimens for erythromycin and azithromycin in children are based on body weight:
 - Erythromycin suspension (base, ethyl succinate, stearate; 200 mg/5 mL) 10 mg/kg/dose, one to two times daily. Common adverse effects include nausea, vomiting, and diarrhea. Serious side effects include altered cardiac conduction (prolonged QT interval), liver toxicity, and hypertrophic pyloric stenosis in infants.
 - Azithromycin suspension (200 mg/5 mL) 5 mg/kg once daily (maximum dose 250 mg/day). Common side effects include nausea and diarrhea. Serious side effects include altered cardiac conduction (prolonged QT interval, ventricular tachycardia), Clostridium difficile colitis, drug hypersensitivity reactions, liver toxicity, and ototoxicity.
- **Duration of treatment** – Oral antibiotics are usually given for three months. To reduce the risk for antibiotic resistance and potential adverse effects, the need for continued antibiotic use beyond

three months is reassessed in the individual patient.

C. Severe acne

For severe, nodular acne and acne not responsive to systemic antibiotics, oral isotretinoin can be used. In the United States, oral isotretinoin is used off label for the treatment of acne in children younger than 12 years:

- **Dosing** – Standard dosing in infants and children is 0.5 to 1 mg/kg/day (same as for adolescent acne). Cumulative dosing has not been established in infantile acne. Reported duration of treatments range from 4 to 14 months.
- **Administration** -Tips for the administration of isotretinoin to young children or those who cannot swallow capsules are summarized in the table.
- **Adverse effects and monitoring**-Reported adverse effects of isotretinoin in infants include diarrhea, perioral rash, lip desquamation, transaminitis, umbilical granulation tissue, eczema, reduced hair growth, and mood changes. Laboratory monitoring (ie, lipids and liver function tests) should be done at baseline and once the therapeutic dose has been established (typically in one to two months). While premature closure of growth plates is a serious concern with systemic isotretinoin in children, it has typically been reported with higher doses of isotretinoin (above 1 mg/kg/day) and for longer durations of treatment (four to six years).

XI. Preadolescents (children 7 to 12 years) in Acne Vulgaris (Basoor Labaniya)

For preadolescent acne, the treatment principles are the same as for adolescent acne. Our approach to the treatment of acne in preadolescent and adolescent children is illustrated in the algorithm. It should be noted that hormonal therapies (i.e. combined oral contraceptives, spironolactone) are **not** indicated for preadolescent acne.

- A. **Mild acne**-Mono-therapy with topical tretinoin 0.025% cream or adapalene 0.1% gel or combination therapy with benzoyl peroxide 2.5% gel plus tretinoin 0.025% cream or adapalene 0.1% gel can be used for mild acne in preadolescents. Simplifying routines in this age group is especially important to encourage better adherence. For combination therapy, once-daily routines (eg. benzoyl peroxide wash with adapalene 0.1% gel) or fixed combination products (eg. adapalene-benzoyl peroxide 0.1%/2.5% gel) may ease compliance.

Topical dapsone is a second-line topical treatment for mild, inflammatory acne for children ≥ 9 years. Dapsone gel 7.5% is applied once daily. Dapsone should not be applied at the same time as benzoyl peroxide, as they can cause a temporary orange discoloration of skin and hair.

Topical therapies for preadolescent acne have been evaluated in several randomized trials:

- **Adapalene-benzoyl peroxide** – In a randomized trial that included 285 children aged 9 to 11 years with moderate acne treated with adapalene-benzoyl peroxide 0.1%/2.5% gel or vehicle, the percent reduction in lesion count at 12 weeks was greater in the active treatment group than in the vehicle group (69 versus 19 percent).
- **Tretinoin**-In a randomized trial with 110 children aged 9 to 11 years, treatment with topical tretinoin 0.04% microsphere gel (55 patients) induced a statistically significant greater mean

reduction in non-inflammatory lesions compared with vehicle (-19.9 versus -9.7, respectively) at 12 weeks.

- A post-hoc analysis of two multicenter, phase 3, randomized trials of tretinoin 0.05% lotion versus vehicle in 154 children aged 9 to 13 years with moderate to severe acne found a mean percent reduction in inflammatory and non-inflammatory lesion counts of 50 and 44 percent, respectively, in the tretinoin group compared with 31 and 19 percent, respectively, in the vehicle group at 12 weeks.
- **Topical dapsone-** Dapsone 7.5% gel was evaluated in a phase 4, open-label, multicenter study in 100 patients 9 to 11 years of age. At 12 weeks of treatment, total lesion counts decreased by 24, with a mean percentage reduction of 51.9 percent.

XII. Recommended Medicine for Acne Vagaries:

● **Classification of pediatric acne-**Based on age at presentation and pathogenetic factors, pediatric acne is classified into three groups:

- **Infantile acne** – Infantile acne typically occurs at the age of 6 to 16 months (median 9 months), is associated with transient physiologic imbalance in androgen production in most cases, and lasts for up to two years.
- **Mid-childhood acne** -Mid-childhood acne occurs between one to seven years of age and is, in most cases, associated with premature adrenarche.
- **Preadolescent acne** -Preadolescent acne occurs between 7 to 12 years of age and is associated with the early rise in adrenal androgens, heralding the start of puberty.

XIII. Treatment of Acne Vagaries.

A. Infants and children <7 years:

- **Mild acne** – Mild infantile and mid-childhood acne is managed with topical treatments. We suggest a low-strength topical retinoid (eg. tretinoin 0.025% cream, adapalene 0.1% gel) or benzoyl peroxide 2.5% cream rather than a combination of the two as initial therapy. They are applied once daily. A fixed combination product (adapalene 0.1%/benzoyl peroxide 2.5% gel) can be an alternative therapy, especially if scarring is noted.
- **Moderate acne**-For children with moderate acne or more pronounced, inflammatory papules, we suggest systemic antibiotic therapy with erythromycin or azithromycin in addition to topical therapy as described for mild acne. Oral erythromycin is given at the dose of 10 mg/kg/dose one to two times per day and continued for three months.
- **Severe acne**-For severe, nodular acne that does not respond to systemic antibiotic therapy, oral isotretinoin is a therapeutic option. In the United States, oral isotretinoin is used off label for the treatment of acne in children younger than 12 years.

B. Children 7 to 12 years

For preadolescent children, the acne treatment principles are the same as for adolescents:

- **Mild acne** –For preadolescent children with mild acne, we suggest topical retinoids or benzoyl peroxide or a combination of the two rather than other topical agents as initial therapy.

- **Moderate to severe acne** – We suggest oral antibiotic therapy in addition to topical therapy for preadolescents with moderate to severe acne. We typically use erythromycin in children younger than eight years and doxycycline in children ≥ 8 years of age for three months while maintaining topical therapy.
- **Severe acne** – For severe, nodular acne and acne not responsive to systemic antibiotics, iso-tretinoin is a therapeutic option. In the United States, oral iso-tretinoin is used off label for the treatment of acne in children younger than 12 years.

VIX. Management of Basoor Labaniya in Unani medicine.

A. ‘Ilaj bi’l Ghidha’ (Dieto-therapy)

- Use of easily digestible foods like soups and chapatti.
- Use of vegetables which heaving cold properties.
- Use only Ghidha’-i Sāda (simple food items) like Turai (ridge gourd), Kaddu (pumkin), Palak (spinach), Shalgham (urnip), Mū ng (green gram), Arhar (split red gram), mutton, etc. ^[8]
- Regular intake of fruits i.e. oranges, pomegranates, apples and pears.
- Avoid Raddi (waste), Fasid (Putrified) and badi (flatulent) agdhiya like mash dāl (black gram), matar (pea), gobhi (cauliflower)
- Avoid to sharāb (Alcohol) intake

B. ‘Ilaj bi’l Tadbir (Regimenal Therapy)

Tanqiya-ī Badan wa Dimāgh

Unani scholar recommended tanqiya of the whole body by Fas’d and Ishāl. Fas’d of Sarar’o (Qifāl) and vessels of the nose. Ishāl (purgation) by oral intake of Aftimūn, Habb-ī Quqāyā or Habb-ī Sibr, or Habb-i Ayārij

C. ‘Ilaj bi’l Dawa’ (Pharmacotherapy)

Mussaffi-i Dam Advia: Some single drugs are:

- Shahtra (Fumaria parviflora) ^l
- Mundi (Sphaeranthus indicus)
- Siras (Albizia lebeck L. benth)
- Neem (Azadirachta Indica)

Some compound:

- Joshanda for Mussafi-i Khūn advia as: Shahitra 4 g, Chraita 4g, Sarfhooka 4 g, Gul-i Mundi 4 g, Unnab 5 adad.
- Majūn Ushba 12 g at bed time
- Qurs-i Mavīzi 2 tab in morning and Mugarabi 2 tab in evening with water
- Qurs-i Muşaffi (500 mg) 2 tab thrice a day
- ‘Itrīfal shāhtara 7 g twice a day
- Majūn Mundi 5 g twice a day
- Majūn chobchīnī 5 g twice a day

Management of Acne vulgaris (Basoor Labaniya) in Conventional Medicine

- Non-drug measures or General measures
- Drugs-Topical therapy, Systemic therapy and Combination of both
- Physical measures

General / Non-drug measures:

- Reassurance is a great way to relieve stress.
- Patient counseling about the nature of the disease, therapeutic approaches, and expected results
- Suggestions to stop irritating lesions.
- Examine the endocrine system and look for signs of premenstrual syndrome.
- Advise the patient that Acne-causing medicines, oils, emollients, and excessive makeup should be avoided.
- Advise balanced diet and avoid hyperglycaemic diet.
- Face cleaning with soap and water on a routine basis.

XV. Household remedies for Acne vulgaris.

A. Grape Cleanser



Fig. 7 Grapes and Cacumber used in Acne

Grapes are a refreshing snack, whether eaten plain as a snack, halved as a salad topping, or frozen as a healthy dessert. But grapes likely don't come to mind when you think of acne treatments. Yet according to an article published in April 2016 in *Advances in Dermatology and Allergology*, resveratrol in the skin of red grapes may exhibit bactericidal activity against *Cutibacterium acnes*. formerly called *Propionibacterium acnes*, *C. acnes* is a bacteria in the sebaceous glands that contributes to acne. So grab a few fresh grapes from your fridge, and you've got an easy facial cleanser. Cut two or three grapes in half and rub the flesh over your face and neck, says [Fran E. Cook-Bolden, MD](#), a dermatologist and director of Skin Specialty Dermatology in New York City. Follow with a cool water rinse.

B. Cucumber Face Mask

If you've ever been to a spa, you've likely put cucumber slices on your eyes to reduce puffiness — and they may not be a sham treatment. A past review suggests that cucumbers can have a soothing effect on the skin, reducing irritation, swelling, and pain. Hence, they can potentially relieve inflammation specifically associated with acne. In the case of acne, "inflammation develops within the oil gland and follicle, leading to red, angry bumps in the skin," explains Dr. Zeichner.

C. Cucumber Face Pack



Fig. 8 Cucumber and Honey used in Acne

If you don't have oatmeal or yogurt in your kitchen, use this cucumber remedy instead. This cooling, soothing mask will help smooth your skin, which can feel rough from acne. "Mash one whole cucumber, strain the water, add 1 tablespoon of sugar, and mix well," says Cook-Bolden. "Apply to your face and leave it on for 10 minutes; then wash with cold water."

D. Simple Honey Mask

[Honey](#) has many healing properties. According to the Mayo Clinic, some people use it as a natural [cough](#) syrup and to [relieve a sore throat](#). According to an article published in August 2016 in the *Central Asian Journal of Global Health*, in vitro studies suggest that the antibacterial properties of honey may also promote healing of burns and wound infections, and inhibit the growth of *C. acnes*. Before applying this mask, rinse your face with warm water, says Cook-Bolden. Then apply the honey and leave it on the skin for 30 minutes. Rinse the honey off with warm water.

E. Yeast and Yogurt Mask for Oily Skin



Fig. 9 Yougurt and Oatmeal used in Acne

Although more research is needed, evidence published in April 2015 in the *International Journal of Women's Dermatology* suggested that fermented dairy products like yogurt may promote skin health. Yogurt is also a probiotic, which has been shown to inhibit *C. acnes*. To make the mask, combine 1 tsp of brewer's yeast with a little plain yogurt to create a thin mixture. Cook-Bolden says, "Apply it thoroughly to all the oily areas and leave on for 15 to 20 minutes. Rinse with warm water; then use cold water to close the pores."

G. Oatmeal Facial

The anti-inflammatory properties of oatmeal are naturally soothing and may relieve irritation caused by dermatological conditions like [rashes](#), erythema, burns, itch, and [eczema](#), according to research published in January 2015 in the *Journal of Drugs and Dermatology*. Oatmeal has skin protecting, hydrating, and anti-inflammatory benefits, says Zeichner. "It's not specifically effective in treating acne, but it can help soothe dry, inflamed skin. I commonly recommend oat-based moisturizers for my patients who use potentially irritating acne treatments," he further notes. Mix together 2 tsp of oatmeal, 1 tsp of [baking soda](#), and enough water to form a paste. Smooth the paste all over your face and gently rub it in. Rinse thoroughly afterward.

H. Turmeric Facial Mask



Fig. 10 Turmeric used in Acne Vulgaris

For beautiful skin, brides in India traditionally use a [turmeric](#) mask before their wedding, says Cook-Bolden. This is likely due to the spice's anti-inflammatory, antimicrobial, and [antioxidant](#) properties, and its ability to significantly improve the severity of skin conditions like acne, [alopecia](#), [atopic dermatitis](#), oral lichen planus, pruritus, and [psoriasis](#), according to a review published in August 2016 in *Phytotherapy Research*. Ingredients for this acne remedy are available at spice markets and ethnic food stores. Mix 1/2 cup of chickpea flour and 2 tsp each [turmeric](#) powder, sandalwood powder, and ghee (clarified butter) or [almond](#) oil, and then combine them with enough water to make a paste. "Apply and leave on for 5 to 10 minutes," says Cook-Bolden. "Rub with pressure with both palms and fingers to remove all the paste." Rinse well with water.

CONCLUSION

Skin diseases also have a substantial, financial and psychological burden for the patients and their families. Acne is a common condition affecting 80% of young people (12-18years age group). 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. Approximately 85% of young adults between the ages of 12 and 25 years, 8% of adults between the ages of 25 and 34 years, and 3% of people between the ages of 35 and 44 years have acne to some extent. Acne is a common inflammatory dermatosis that is frequently linked to significant psychological morbidity. Renowned Unani physicians have explained a skin disease Basoor Labaniya in their famous texts which is clinical resemblance to present day Acne vulgaris and this skin condition is evident with the presence of eruptions resembling to milk drops over the face, forehead, nose, and arms. Despite of numerous successful therapies are available currently in modern system of medicine but several patient struggles to respond adequately and experience adverse effects that result raises the demand and uses of alternative medicine like Unani system of medicine with their popularity and wide acceptability. Unani system of medicine contains successful and safe treatment of Acne vulgaris. So, there is need to explore and clinical studies should be conducted on the line of mentioned Unani treatment to substantiate their efficacy in prevention and control of Basoor Labaniya (Acne vulgaris).

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