



To Study Prevalence, Medical-Social and Clinical Aspects of Acne Disease in the Bukhara Region

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Abstract: Acne is one of the leading dermatoses in terms of prevalence and is an important medical and social problem. Acne is the most common disease among adolescents and young people.

Key words: acne, acne vulgaris, medical and social problem.

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Relevance. Acne disease (AD) is a multifactorial, polymorphic disease that is chronic and recurrent, with the involvement of hair follicles and sebaceous glands in the process, it is the most common disease among adolescents and young people.

Prepubertal children have more sensitive skin [3]. Up to 80–85% of adolescents and young adults suffer from acne. In older age groups, the percentage is decreasing, but still, almost every tenth adult after 25 years old suffers from acne vulgaris. In most cases, acne vulgaris disappears on its own in the third decade of life. Recently, however, in a significant number of women (to a lesser extent in men), acne appears at a more mature age. Acne in women begins to occur at the age of 12-13 years, in men, due to the later onset of puberty, at the age of 14-15 years. Therefore, the most striking clinical picture of acne in women is observed at the age of 17-18 years, and in men - at 19-21 years. According to dermatologists, complete resolution of mild to moderate acne requires 3-4 years of treatment; in the case of severe acne, it may take 8-12 years [2,26]. According to W.J. Cunliffe, in 7% of patients, the

manifestations of the disease can last up to 45-50 years. T. Fitzpatrick et al. Note that exacerbations of acne vulgaris are recorded in autumn and winter. On the seasonality of the disease: worse in winter and better in summer [4,27].

Acne is one of the leading dermatoses in terms of prevalence and is an important medical and social problem. According to numerous literary reports, acne is observed in 60–80% of adolescents and adolescents [1, 6]. A number of researchers consider acne the most common dermatosis that occurs at the beginning of puberty, reaches its greatest development in adolescence and slowly regresses in the early adult period [25, 7].

The incidence and duration of acne in women and men differ. In particular, in girls, acne develops and regresses earlier than in boys; the most expressive peak in girls is observed at 13-14 years old, in boys - at 15-16 years old. In later years of adolescence, the incidence of more severe clinical forms of acne increases in boys and decreases in girls. According to a number of authors, clinical manifestations of acne are observed in 5% of women and in 3% of men of early adulthood and adulthood [4, 11], while in men they are characterized by more severe clinical forms. An important problem for dermatovenerologists is persistent adolescent ("post-pubertal") acne, as well as different types of acne that first appear in adults, in particular, after 20 years. In addition, in the last decade, a number of researchers focus on various clinical manifestations of forms of acne with additional pathogenetic links of their development, in particular, endocrine, infectious and parasitic origin [24, 3, 5].

Acne vulgaris occurs against the background of seborrhea (seborrhoea; Latin sebum fat + Greek rhoia expiration) - a genetically determined disease characterized by increased sebaceous glands secretion of sebum of altered chemical composition and the occurrence of acne on the areas of the skin richest in sebaceous glands [5]. The sebaceous glands are abundantly supplied with blood from the superficial and deep dermal plexuses. They are involved in the excretion of various metabolic products, as well as toxic and medicinal substances [6]. Sebocytes express more than 40 receptors, including receptors for beta-endorphins, interleukins 1-alpha and 1-beta, interleukins-6 and -8, TLR-2 (Tolllike receptor-2), TLR-4 (Toll-like receptor-4), TLR-6 (Toll-like receptor-6), TNF-alpha (tumor necrosis factor alpha). This diversity of receptors indicates that the sebaceous gland can respond to various stimuli and changes in the body. In humans, there is a significant variability in the number and size of the sebaceous glands attached to one sebaceous-hair unit. The most saturated sebaceous glands are the skin of the scalp, face, forehead, brows, nasolabial triangle, chin, auricles, midline of the chest and interscapular region of the back. Here the number of sebaceous glands reaches 400-800 per 1 cm². It is these places that are most often affected with seborrhea, therefore they are usually called seborrheic. One of the earliest changes in puberty is the increase in the size of the sebaceous glands. All these changes are controlled by hormones. They have the greatest value in the period from 18 to 35 years. In old age, the sebaceous glands partially or completely atrophy, therefore, one of the signs of skin aging is its increasing dryness. Almost all patients with acne vulgaris have increased sebum production. However, increased sebum production is not a necessary and sufficient condition for the development of acne vulgaris [3, 7].

Acne includes various manifestations of acne in adolescents and adolescents, acne in adults, as well as a large group of acne-like rashes. It should also be borne in mind that for the development of acne there must be a certain background, in particular seborrhea, a special condition associated with hyperproduction of sebum and changes in its composition [1,23, 4].

According to various researchers, the leading factors in the development of acne are: violation of the composition and production of sebum; changes in the hormonal and immune status of the body; violation of the keratinization of the follicular canal; intensive colonization of the ducts of the sebaceous glands propionibacterium acnes; the development of an inflammatory reaction in the perifollicular areas; genetic tendency [8, 10].

Some authors [9] propose to distinguish 4 stages of acne severity. The first stage of acne is characterized by the presence of closed and open comedones without expressive inflammatory manifestations. In the second stage, papules and single pustules are observed. The third stage is characterized by the appearance of papules, pustules and single cysts, as well as expressive inflammatory manifestations. At the fourth stage, the presence of all the above elements of the rash is observed [21,22] .. It is also proposed to distinguish the following clinical forms of acne: comedogenic, papular, pustular, compacted, spherical, abscessing, phlegmonous, atheromatous, fulminant, lightning [18,19] ... The morphological elements of the acne rash are characterized by polymorphism. In particular, V.P. Adaskevich [20] points to 17 acne elements, categorizing them into primary non-inflammatory, secondary inflammatory, and tertiary post-inflammatory. The overwhelming majority of researchers identify comedogenic and inflammatory forms of acne, and also point to the clinical significance of the variety of post-acne elements [1, 5, 7]. When determining the clinical diagnosis of acne, it is generally accepted to describe the dominant types of morphological elements of the skin rash, taking into account which the severity of the disease and the tactics of therapy are determined [16, 15] ..

In particular, comedogenic acne is not accompanied by the formation of inflammatory elements of the rash. Inflammatory rashes include papular, pustular, and nodular elements. The less severe variant of the corresponding inflammatory elements of the rash are indurative, and the more severe are the globular and conglobate. Severe destructive types of lesions are also distinguished, in particular, nodocystic, abscessing, colliquative, keloid, scarring. When determining the clinical diagnosis of acne, the forms of lesions with atypical localization and systemic symptoms, in particular fever, rhinitis, arthropathy, are also taken into account [14, 4, 8].

Juvenile acne (*acne vulgaris*), according to some literature data, occurs in almost 100% of boys and 60% of girls aged 13–16 years [13]. After the peak of the disease in adolescence, the corresponding indicator gradually decreases.

Clinically, juvenile acne is characterized by a pronounced polymorphism of the elements of the skin rash. The disease begins with an increase in sebum production on the skin of the face and scalp. In the future, against the background of seborrhea, there are closed and open comedones. Comedones appear first on the nose and then on the forehead, cheeks and chin. Sometimes the elements of the rash are presented only by comedones, or they are transformed into papules and pustules. The papular form of juvenile acne is the most common. Rashes can be localized on the face, as well as on the neck, shoulders, chest, upper back. The complete regression of juvenile acne, even if untreated, occurs in most individuals between the ages of 16-18. In girls, the process of regression occurs earlier than in boys. However, sometimes the clinical manifestations of acne are prolonged, while the severity of the clinical picture increases in boys and decreases in girls [6].

A number of authors [2, 12] distinguish spherical, inverse, fulminant acne, pyoderma of the face, late acne in women, tropical acne, mechanical acne, Favre-Rakuchow syndrome, medicinal acne, cosmetic acne, chloracne.

There are several forms of acne, characterized by a severe, aggressive course, such as conglobate, fulminant and inverse [4–6]. Acne conglobata is a chronic, severe form of acne, characterized by polyporous open comedones, granulomatous inflammation, accompanied by the formation of cysts, nodes, abscesses, which are resolved by disfiguring scars. The disease is also often associated with the formation of sinus tracts that have multiple excretory openings. Acne conglobata usually occurs between the ages of 18 and 30, with a much higher incidence in males than in females.

Acne conglobata can begin to develop both *de novo* and gradually, from pre-existing papular or pustular acne. Unlike fulminant acne, during the formation of which symptoms of damage to various

organs and systems are often observed (pronounced leukocytosis, fever, etc.), they are not typical for acne conglobata.

Hydradenitis-like acne (inverse acne). Suppurative hydradenitis is a chronic, scarring, suppurative disease of the apocrine glands. Therefore, the pathological process mainly affects the axillary, anogenital areas and mammary glands. Interestingly, the disease often develops against the background of existing acne. Moreover, just like acne, purulent hydradenitis never develops in people until they reach puberty; during menopause, as well as acne, exacerbations of purulent hydradenitis stop. All this suggests that the development of purulent hydradenitis is associated with changes in the hormonal system [18].

Acne fulminant is an acute febrile reaction associated with severe acne. This form is much more common in men than in women. The main features of this form of acne are as follows: sudden onset, severe course with periodic ulceration, localization on the trunk, systemic toxic effects in the form of fever and polyarthralgia, lack of effect from antibiotic therapy [17].

Purpose of the study. To study the prevalence, medical, social and clinical aspects of acne in the Bukhara region.

Material and research methods. When performing the study, clinical, morphological and statistical research methods were used. We examined 58 persons aged from 16 to 26 years, when the highest incidence of UB was noted in 46 persons. Of these, 24 men (52.2%), 22 women (47.8%).

Results and discussion. Clinical manifestations of UD were detected in 35 (76%) individuals. A mild degree of the disease was diagnosed - in 51.2%, medium - 45% and severe - in 3.75% of patients.

Of the morphological eruptions, comedones were found in 39.75%, papules in 12.5%, papulopustules in 29.5%, pustules in 14.5%, and cystic conglobate manifestations in 3.75%. 5.5% of patients associated the cause of the disease with a neuropsychic factor, 9.75% - with diseases of internal organs, 19.5% - with hereditary predisposition, 18.5% - with nutrition, 4.5% - with the presence of other skin diseases, the remaining 42.25% of patients could not indicate the cause of UB. 24% of patients noted a fat face. Cosmetic discomfort was reported by 16.5% of individuals, redness - 10.7%, itching - 9.25%, soreness - 3%, and burning - 1.25%. The combination of the above complaints was noted in 35.25% of patients. Consequently, UB in adolescence occurs in 78% of individuals, often a mild degree (51.2%) and a comedonal form (39.75%).

Conclusions. Acne is one of the leading dermatoses in terms of prevalence and is an important medical and social problem. The incidence and duration of acne in women and men differ. In particular, in girls, acne develops and regresses earlier than in boys; the most expressive peak in girls is observed at 13-14 years old, in boys - at 15-16 years old. In later years of adolescence, the incidence of more severe clinical forms of acne increases in boys and decreases in girls.

Thus, our clinical and medico-social studies of the population of the Bukhara region showed that the incidence of acne is almost 80% of adolescents. Men and women get sick about the same (52.2 and 47.8%, respectively) and mostly between the ages of 16 and 26.

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