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Atopic Dermatitis and Mental Disorders Psychosomatic Relationships

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Abstract

Atopic dermatitis (AtD) is a hereditary, immunoneuroallergic, chronic recurrent inflammatory skin disease caused by atopy, manifested by intense itching, sympathetic skin reaction (white dermographism), mainly erythematous—lichenoid rashes, in combination with other signs of atopy.

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In 1923, American allergists Coca A. F. and Cooke R. A. wanted to describe an unusual type of hypersensitivity to various environmental substances that occurs only in humans and often occurs in families with previously unknown sensitivity, and turned to the philologist Perry from Columbia University for help. It was he who suggested scientists to use the term "atopia", which means "out of place" or "strange" [11]. Atopy is understood as a genetic predisposition to allergic reactions in response to certain antigens. For the first time in the literature, Emperor Octavius Augustus was described as "atopic", with symptoms of severe itching, seasonal rhinitis and shortness of breath. In addition, his family history is detailed: his grandson Emperor Claudius suffered from symptoms of rhinoconjunctivitis, and his great-nephew Britannia suffered from an allergy to equine epithelium [15]. For more than 80 years, the term "atopy" has been used around the world, although it is sometimes controversial.

AtD is a very common and often severe dermatosis. Among skin diseases, its occurrence rate varies in different sources, from 20 to 40%. The results of epidemiological studies show that AtD is more common among young people than among adults. Both sexes are affected equally, but it is more common in women. AtD occurs in people all over the world and in all races. In recent decades, the prevalence of the disease has increased significantly. For example, in Denmark, the total incidence of twins under 7 years of age, born between 1960 and 1964, was 3%. For twins born between 1970 and 1974, this indicator has already risen to 10%. The emergence and chronic course of

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AtD is a hereditary predisposition, functional disorders of the nervous system, the influence of adverse environmental conditions, psycho-emotional disorders and pathologies of internal organs, metabolic, neurohumoral, neurovascular diseases, allergic diseases, Bad nutrition leads to various intoxications [16]. The clinical manifestations of AtD are diverse, but very specific and well-studied. The disease usually begins in early childhood, often in the second half of the child's life. It can last for many years, mainly characterized by summer remissions and spring-autumn relapses. Over time, the acuteness of the disease weakens, and by the age of 30-40, most of the patients recover on their own. Three stages are distinguished in the development of the disease: infancy (usually from 7-8 weeks to 3 years), childhood (from 3 to 7 up to age) and size. Erythematous-squamous rashes with a tendency to exudation (vesiculation, wetting) on the skin of the face, buttocks and limbs are more often observed in infancy and childhood. In the adult stage, itchy erythematous-lichenoid rashes with the development of lichenification predominate on the flexor surfaces of the limbs and neck (the skin thickens, becomes rough, skin patterns are revealed). The level of clarity and spread of the process can be different - from limited (perioral) rashes to extensive skin lesions of the type of erythroderma. An indispensable symptom of AtD, regardless of the stage of progression or clinical variant, is strong, painful itching, which aggravates the course of the disease and reduces the patient's quality of life [6, 11, 14].

Sergeev Yu.V. According to the clinical classification of [16], five forms of AtD are distinguished: lichenoid, erythematous-squamous, pruriginous form, eczematous, atypical.

AtD diagnosis Hanifin a. It is based on the set of diagnostic signs of AtD, called Rajka criteria, 1980 [15]. A diagnosis of AtD requires the presence of at least three of the four major criteria and three minor criteria.

In order to objectively assess the severity, prevalence and severity of pruritus in AtD, a group of researchers from the European Center for the Study of AtD developed a single scale of AtD symptoms (SCORAD), which is a multi-scale assessment of AtD severity. consists of p-parameter scores, which can be used as the most objective ("golden") standard in scientific research and clinical practice [17].

Taking into account the fact that the stress of the disease is triggered psychogenically, AtD was included in the classic psychosomatic disorders by Franz Alexander in 1950 [18]. Since then, a large number of local studies dedicated to the study of the factors leading to AtD stress, the role of psychogenic influences, as well as mental disorders in patients with AtD [5,6,7, 8, 9, 10, 11, 12, 13, 18] and foreign [10,17,12,18] studies were conducted. Using the AtD model, it seems possible to study the mental disorders that develop in patients with chronic pruritic dermatoses. The location of rashes on visible areas of the skin and severe itching lead not only to a decrease in the quality of life, but also to the development of pathological mental reactions to the disease, which significantly affects the patient's susceptibility to treatment and worsens the condition of patients.

According to the studies, AtD often develops after psychogenic effects and is often accompanied by mental disorders [12, 13, 15]. Thus, the association of AtD and depressive disorders was established in the study of the comorbidity of the discussed dermatosis and affective pathology. According to a cohort study by Timonen M., 30% of AtD patients had depressive episodes during their lifetime [14], which is significantly higher than the general population (5% to 10%) [16]. In the studies of other authors, depression was found in 23-80% of patients with AtD [1, 5, 11, 12, 14]. Comorbidity of anxiety disorders and AtD was noted in almost half of the studied patients [6, 17]. There is evidence that the psychological profile of "atopic" is characterized by depression, tension, anxiety and aggression [15, 18, 13]. At the same time, the frequent development of mental disorders is usually explained by the nature of the skin disease (chronic course, intensity, including nocturnal itching and location of rashes on visible areas of the skin). At the same time, psychosomatic studies conducted in patients with AtD are mainly based on the use of established psychometric diagnostic methods or psychological counseling, which does not allow to estimate the share of true benign mental disorders and the share of diseases that have developed

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independently of AtD. In recent years, a system of psychodermatological disorders has been created. According to this classification, AtD, on the one hand, belongs to the group of psychosomatic diseases, and on the other hand, as a chronic dermatosis, it can cause the formation of nosogenic reactions and pathological developments. However, there have been no studies examining the characteristics of mental disorders in AtD in these positions.

The purpose of this study is to comprehensively study psychosomatic disorders in AtD and to determine the dependence of these changes on the clinical characteristics and course of skin diseases.

Materials and methods of research. The research material consisted of 97 patients (73 girls and 23 boys; average age was 16.9±10.2 years). The criteria for inclusion in the study: the diagnosis of AtD confirmed according to the international diagnostic criteria of J. M. Hanifin and G. Rajka [17], the age of the patients is from 8 to 18 years. Exclusion criteria: manifest schizophrenic/schizoaffective/affective psychosis, organic damage of the MNS, dementia, addiction to psychoactive substances, period of tension or decompensation of other severe somatic diseases.

The study was carried out using a clinical method that provides a comprehensive dermatological and psychopathological examination. Dermatological examination included the analysis of anamnestic and clinical indicators, confirming the diagnosis of AtD. In all patients, the severity and distribution of the skin process was evaluated using the SCORAD index (a method recommended by the European Working Group on AtD) [12], in which the distribution of the rash, the nature of the rash (erythema, swelling, moistness, excoriation, lichenification, dryness) and degree of clarity of subjective symptoms – itching, insomnia due to AtD were taken into account. Psychopathological examinations were conducted by employees of borderline mental pathology and psychosomatic disorders using special tests.

Results.

In the conducted dermatological examination, it was revealed that the average duration of the disease in patients was 10.99 ± 12.04 years. According to the severity of the disease, patients were distributed as follows: mild AtD in 37 patients (38.1), moderate AtD in 30 patients (31), severe - in 19 patients (19, 6%) and very severe — diagnosed in 11 patients (11.3%). Patients with different forms of AtD were included in the studied sample: 72 (74.2%) patients were diagnosed with erythematous-squamous form of AtD, 17 (17.5%) - eczematous, 7 (7.2%) - lichenoid, 1 (1.1%) — pruritic. Among them, 37 (38.1%) had chronic skin disease at the time of examination, and 60 (61.9%) had AD during the period of tension.

Psychopathological examination revealed a number of mental disorders in 52 (53.6%) patients, these disorders developed not only due to the influence of dermatological pathologies (non-genic reaction and personality development), but also without direct connection with AtD. Examination revealed multiple mental disorders, including nosogenic reactions, hypochondriacal pathocharacterological developments, affective disorders, and slow-onset schizophrenia (a number of patients had multiple mental disorders at the same time).

Anticipating the clinical characteristics of nosogenic reactions, it should be noted that their manifestation in patients with AtD is not only the course of skin disease (often without a clear reason for the patient, stressing the disease, the location of rashes in visible places), the contagiousness of skin diseases in the population is determined by his thoughts about, and is also associated with constitutional anomalies (personality disorders) that are responsible for the tendency to the formation of pathological reactions and have a significant impact on the symptoms of the nasogen:

The formation of sensitive nosogenic reactions (n = 12, 12.4%) is dominated by social phobia phenomena associated with cosmetic defects observed by AtD, and physical discomforts associated with skin disease affect patients imperceptibly. Social phobia is characterized by the fear of negative reactions from others, mainly displeasure and the fear of isolating others for fear of infection due to the appearance of rashes on visible parts of the body. Pathological fears are accompanied by incorrect, unsystematic and unimaginative ideas: it seems to patients that

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people around them (on the street, in transport) look at them with pity or look at the patient, so they deliberately withdraw themselves or they stay away, whisper to each other for fear of infecting others, complain about the patient's presence, etc. According to the dominant fear plot, pathological avoidance behavior is formed: before going out in front of people, patients mask their skin with cosmetics, choose the most closed clothes, and often completely refuse to enter the crowd.

The premorbid characteristics of patients with this type of nosogenesis are schizoid and hysterical, regardless of the age of onset of AtD.

When evaluating the demographic characteristics of the clinical presentation, it is first necessary to note the average age, which was 10.3±12.7 years in the group of sensitive reactions and was 3 years less than the average age in the sample. The second distinguishing feature of this group of patients was the SCORAD index, which was 34±3.5, which was lower than the average of the total sample (40.5±7.07). According to the dermatological examination, the erythematous-squamous form of AtD prevailed in the group of sensitive nosogenic reactions, this form of AtD was dominant in all studied samples (only one patient had an eczematous form). These data show that the development of sensitive nosogenic reactions is characteristic of young patients with a relatively mild level of AtD. Anxious-hypochondriac nosogenic reactions (n = 16, 16.5%) developed in adults with AtD debut observed in childhood, followed by long-term complete clinical remission. Symptoms of nosophobia, expressed by the fear of the disease becoming chronic, damage to internal organs, permanent inpatient treatment, come to the fore. In order to achieve a complete recovery from AtD, patients seek repeated treatment, hospitalization, seek to undergo all available tests to determine the underlying cause of AtD and appropriate therapy, and study available literature on diagnosis and treatment of AtD.

Premorbid personality traits involved in the formation of the considered type of nosogenic reactions are represented by constitutional anomalies of the anxiety sphere, mainly anankast personality disorder and schizoid.

The analysis of dermatological examination data showed that the characteristic features of anxiety-hypochondrial nosogenic reaction in patients with AtD, firstly, its average duration (7±5.3) is the shortest compared to other nosogenic reactions. Second, the severity level of AtD according to SCORAD (54±19.1) was the highest, unlike other nosogenic reactions. It should be noted that such indicators of the clinical dynamics of somatic pathology - rapid development and severe level of symptoms - are traditionally considered among the factors contributing to the formation of alarming nosogenic reactions. In addition, the average age of patients with this type of reaction was 34±5.1 years, which is higher than that of patients with nosogenic reactions. Summarizing the characteristics of AtD in a group of patients with various nosogenic reactions, it can be noted that the clinical course of AtD is usually the regression of rashes after the end of the infantile stage of AtD, followed by complete or almost complete clinical remission is characterized by the re-emergence of the rash in the form of stress AD, which is called by reactions within the dynamics of personality disorders by the time of adolescence. In contrast to anxiety-hypochondrial reactions detected in older patients (34±5.1), sensitive nosogenic reactions were observed in young people (23.3±3.1). The average score of SCORAD was the lowest (34) in patients with sensitive reactions and the highest (47) in patients with anxious-hypochondrial nosogenic reactions. Thus, the development of certain nosogenic reactions may be related to age, severity and duration of AtD, but not to its clinical form.

Deeper and more stable signs of the dynamics of the premorbid features of the personality disorder within the framework of hypochondriacal development (IR) were found in the cases where AtD goes through a period of stress with frequent relapses and almost no periods of complete clinical remission.

As a result of clinical analysis, 4 types of IR were identified in AtD: paranoid, in the form of aberrant hypochondria, masked hypochondria, and neurotic hypochondria.

Paranoid IR [2] (n = 3) was characterized by inventive ideas related to the belief in the

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possibility of completely curing the skin disease independently. Patients tend to develop paramedical methods of treatment, sometimes accompanied by self-destructive (harmful or dangerous to health) actions (swallowing self-prepared crushed stones, metal powders). This type of development is formed in patients with a paranoid frame (a tendency to form overvalued ideas, often accompanied by suspicion and mistrust of others, who are perceived as sources of potential threats to the realization of their aspirations). The manifestation of skin diseases in these patients is observed at the age of 10-18 and is characterized by a severe course. In all patients with paranoid personality development, diffuse AtD (erythematous-squamous form, n=2) or subfebrile fever and lymphadenopathy (n=1) were diagnosed with erythroderma with marked dryness of the skin and scaling of the skin. In only one case, AtD was strained due to psychogenic effects (after the patient lost his job).

Development according to the type of aberrant hypochondria [11] (n = 6) is an underestimation of the severity of the general condition (lack of emotional reaction to the threatening meaning of the diagnosis), a desire to minimize ideas about the possibility of a severe somatic illness characterized by Symptoms of skin pathology are interpreted only as a slight deviation from the norm. In some cases, this type of IR is accompanied by inappropriate behavior, which often manifests as obstruction of medical care and medical procedures. The dermatological condition of this group of patients is characterized by mild to moderately severe AD, and the rash is located mainly in closed areas of the skin. Premorbid characteristics of patients with this type of development are expressed by accentuation of the type of segmental depersonalization acting within the hyperthymic framework [12].

Development according to the type of masked hypochondria [10] (n = 17) is manifested in a systematic step-by-step adaptation to the manifestation of the disease as a usual, inevitable companion and a mandatory component of everyday life. Patients with masked hypochondriacal events, on the one hand, establish a "partnership" relationship with the disease, following medical recommendations with regular implementation of the necessary therapeutic and preventive measures, and on the other hand, while leading an active lifestyle without "discounts" for health. they continue. According to the type of masked hypochondria, IR is formed in people with accentuation of the type of proprioceptive diathesis.

The following features of the course of dermatological diseases are noted. AtD or 1) manifested in early childhood and the rashes persisted throughout life, while the course and severity of the disease varied, from limited episodic relapsing erythematous-squamous rashes to widespread lichenoid foci that progressed to erythroderma , they did not achieve clinical remission even for many years; 2) or the development of this dermatosis was noted after 15-20 years, but the disease continued in a mild form (limited rashes occur only occasionally and completely regress in the warm season).

Development according to the type of neurotic hypochondria [16] (n = 7) in the clinical picture due to the predominance of somatized anxiety manifestations and somatoform disorders (appearance of itching as part of a somatoform disorder, subsequent increase in itch marks) is a real AtD continues with increasing symptoms. Patients show a clear tendency to create a frugal lifestyle (a protective regime that significantly limits household and official work loads), and any attempts by medical staff and relatives to activate the patient are returned with accusations of indifference and lack of understanding. The development of neurotic hypochondriasis is determined in individuals with a neuropathic constitution within the framework of schizoid. This type of development is mainly observed in patients with mild and moderate AtD, responsive to conventional therapy, but often involves open areas of the skin.

Seasonal depression was frequently detected in patients with affective disorders identified during the examination (35.3% of all patients with depression). Psychogenic depressions are the second most common (29.4% of cases).

Endogenous depressions are slightly less common (17.6% of patients with depression). Irregular depression was diagnosed in only 11.6% of patients

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Journal of Coastal Life Medicine

and ranked only fourth in prevalence in the studied sample. Postpartum depression was found in 5.9% of depressed atopics.

When analyzing the dermatological status, it was found that patients with depression at the time of examination had a slightly higher mean SCORAD score (46.4) than patients without a lifetime episode of affective disorders (38.1), and all was higher than the average SCORAD in the studied sample (40.6). However, these differences were not statistically significant, and this was due to the small number of patients with depression in the examined sample. In the group of patients with depression, rashes were more localized on the face, and this is consistent with the data presented in the literature [7, 17]. In addition, it was found that the highest value in the subjective assessment of itching intensity according to SCORAD (10 points) is characteristic of patients with nonogenic depression.

When the rate of recurrence of AtD in the group of patients with depression was compared with the group of patients without affective disorders during life, it was found that the development of depression was not related to the rate of recurrence of skin diseases. Thus, according to history or examination, patients with depression had an average of 10.6 lifetime relapses of AtD, and patients without episodes of affective disorders had an average of 11.2 relapses.

The mean duration of AtD in patients with relapsing schizophrenia (18.3 years) was not significantly different from that in patients without mental illness (10.1 years). The mean number of AtD relapses observed in patients with SCS (17.1) was not significantly different from that in other patients (15.2). At the same time, the average score of SCORAD in patients diagnosed with slow-onset schizophrenia was lower than in the rest of the examined patients (36.6 versus 40.9 points). Erythematous-squamous form of AtD was diagnosed in 10 (81%) patients, eczematous (9%) form in only one case. A mutual comparison of the treatment and control groups showed that the appointment of complex psychopharmacotherapy not only leads to a decrease in psychopathological symptoms compared to the control group, but also contributes to the faster disappearance of rash and itching, which are the main symptoms of atopic dermatitis.

Thus, the study confirmed the data of previous studies on the high prevalence of mental disorders in patients with AtD, which was found in 53.6% of patients. As a result of the psychopathological examination, a wide range of psychiatric pathology of AtD, represented by nosogenic reactions, hypochondriacal development of the personality, affective disorders and slow-moving schizophrenia, was revealed.

At the same time, it was found that mental disorders in patients with AtD are not only associated with a decrease in the quality of life of patients, but also cause a significant decrease in the responsiveness of patients to conventional dermatotropic therapy. The obtained data indicate the need for adequate psychiatric care for this group of patients. Effective treatment of mental disorders comorbid with AtD requires a comparative approach, taking into account the clinical typology of psychopathological disorders.

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