

TO STUDY THE PREVALENCE, MEDICO-SOCIAL ASPECTS OF IN THE BUKHARA

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✓ **Resume,**

This article defines the prevalence, medical and social aspects of vitiligo in the Bukhara region. Our goal was to collect all available data on the prevalence of vitiligo in the general population, with a focus on children/adolescents and adults.

Key words: vitiligo, axromiya, melanosytorrhagiya, oxidative stress

ИЗУЧИТЬ РАСПРОСТРАНЕННОСТЬ, МЕДИКО-СОЦИАЛЬНЫЕ АСПЕКТЫ ВИТИЛИГО В БУХАРСКОЙ ОБЛАСТИ

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✓ **Резюме**

В этой статье определены распространенность, медико-социальные аспекты витилиго в Бухарской области. Нашей целью было собрать все доступные данные о распространенности витилиго среди населения в целом, уделяя особое внимание детям/подросткам и взрослым.

Ключевые слова: витилиго, ахромия, меланоциторрагия, окислительный стресс

BUXORO VILOYATIDA VITILIGONING TARQALISHI, TIBBIY-IJTIMOY ASPEKTLARINI O'RGANISH

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Buxoro davlat tibbiyot instituti

✓ **Resume**

Ushbu maqola vitiligo kasalligining Buxoro viloyatida tarqalishi, tibbiy va ijtimoiy aspektlarini o'rganadi. Bizning maqsadimiz bolalar, o'spirinlar va kattalarga e'tiborni qaratgan holda umumiy aholi orasida vitiligonning tarqalishi bo'yicha mavjud barcha ma'lumotlarni to'plash edi.

Kalit so'zlar: vitiligo, axromiya, melanositorragiya, oksidlovchi stress

Relevance

Vitiligo is a skin disease characterized by achromic patches (white) on the skin or mucous membranes that affects 0.5–2% of the population. Few publications are devoted to the epidemiological profile of vitiligo worldwide.

There are several hypotheses for the pathogenesis of diseases - genetic, autoimmune, neurohumoral, oxidative stress, melanosytorrhagia, autocytotoxic, convergent [1,9].

Oxidative stress may play a role in the pathogenesis of vitiligo. The damage to

melanocytes in vitiligo may be associated with generalized oxidative stress [2].

The chronic, progressive course of vitiligo, caused by the activity of the immune system and stimulated by neuro-vegetative imbalance, is directly related to the psychological reaction of the individual to the presence of a cosmetic defect [3]. According to the majority of experts, the leading role in the damage to melanocytes and the disruption of melanogenesis in the skin of vitiligo patients is given to autoimmune mechanisms [4].

Based on the generalized literature data, the authors focus on the relationship of vitiligo with disorders of various parts of the nervous system, leading to damage and degeneration of melanocytes [5].

The link between vitiligo and thyroid disease has been proven in adult patients [9]. Vitiligo is a complex psychosomatic disease, and on the other hand, it is a pronounced cosmetic defect [1].

Objective

To study the prevalence of medical and social aspects of vitiligo in the Bukhara region.

The prevalence, some medico-social and clinical aspects of vitiligo, which will make it

possible to develop a plan of treatment and prevention measures.

Material and methods

When performing the study, general clinical, epidemiological, clinical and statistical research methods were used. Epidemiological examination of the population in 6 regions of the Bukhara region to identify the prevalence of vitiligo, the study of their medical and social aspects. In this regard, we carried out similar studies in 6 regions of the Bukhara region. In total, 3112 people aged 5 to 78 years were examined, including 1650 men (53%), 1462 women (47%) (Table 1.1).

Table 1.

The proportion of patients with vitiligo in the general structure of skin diseases in Bukhara region

Indicators	Total	By gender	
		men	women
Total surveyed	3112	1650	1462
Number of skin patients	631	328	303
The number of patients with vitiligo	49	26	23
In relation to all surveyed, %	1,6 %	1,58 %	1,57 %
In relation to skin diseases, %	7,8 %	7,9 %	7,6 %

Result and discussion

As can be seen from the presented material, the incidence of skin pathology in the Bukhara region was 631 people (20.3%), of whom there were 328 men, 303 women. Vitiligo was detected in 49 people out of the total surveyed. Its frequency was 1.6% in relation to all surveyed and 7.8% in relation to the total number of skin diseases. We did not reveal any gender differences in the frequency of

occurrence: vitiligo was noted in 26 (53%) men and 23 (47%) women. Analysis of the prevalence of skin and subcutaneous tissue pathologies by districts showed some prevalence in Bukhara, Zhondar, Karakul and especially in Romitan districts: 20.1%, 20.0%, 22.3% and 25.3%, respectively, while in Gijduvan district and Peshku district, the frequency was 17.4% and 16.9%.

Table 2.

The number of the surveyed population and the identified skin diseases in the districts of the Bukhara region

Districts, regions	Total number of examined	Discovered skin diseases		Including vitiligo		Women	Men
		абс.	%	абс.	%		
Gijduvan	535	93	17,4	8	1,49	4	4
Peshku	526	89	16,9	7	1,33	4	3
Bukhara	531	107	20,1	10	1,88	4	6
Jondar	520	104	20	7	1,34	3	4
Karakul	510	114	22,3	11	2,15	5	6
Romitan	490	124	25,3	6	1,22	3	3
Total	3112	631	20,3	49	1,6	23	26

The analysis of the frequency of detection of vitiligo by area differed slightly from the total number of skin diseases.

Table 3 shows the results of the analysis of the distributions of the incidence of skin pathology by nosologically forms.

Table 3.

Frequency of nosologically forms of skin and subcutaneous tissue pathology

Nosology	Total	%
Atopic dermatitis	82	13,0
Vulgar and rosacea	66	10,4
Mycosis of the feet	60	9,5
Psoriasis	51	8,1
Vitiligo	49	7,8
Versicolor and pink lichen	33	5,2
Trichophytosis	30	4,7
Polymore photodermatitis	29	4,6
Lichen planus	23	3,6
Scabies	22	3,5
Limited neurodermatitis	21	3,3
Keratoderma	19	3,0
Photodermatitis	18	2,9
Seborrheic dermatitis	18	2,9
Dry streptoderma	18	2,9
Sycosis	15	2,4
Alopecia areata	11	1,7
Nodular pruritus	11	1,7
Plantar warts	11	1,7
Discoid lupus erythematosus	8	1,3
Focal scleroderma	6	0,95
Spiny lichenoids	5	0,79
Darier's disease	3	0,47
Mucosal candidiasis	3	0,47
Other skin conditions	19	3,0
Total:	631	100 %

So, if in Romitan, Peshku, Zhondar and Gijduvan districts it was detected in 1.22%, 1.33%, 1.34% and 1.49% of the surveyed, then in Bukhara district it increased to 1.88%, and in Karakul - up to 2.15%. The revealed differences are apparently due to the peculiarities of climatic, industrial and agricultural production. We did not reveal any sharp sex differences in the regions.

As can be seen from Table 3, out of 631 patients with skin diseases: atopic dermatitis was noted in 82 (13%), acne vulgaris - in 66 (10.4%), mycosis of the feet - in 60 (9.5%), psoriasis - in 51 (8.1%), vitiligo - in 49 (7.8%), polymorphic photo dermatosis - in 29 (4.6%), photodermatitis - in 18 (2.9%), trichophytosis - in 30 (4.7%)), lichen planus - in 23 (3.6%), scabies - in 22 (3.5%), limited neurodermatitis - in 21 (3.3%), seborrheic dermatitis - in 18 (2.9%), dry streptoderma - in 18 (2.9%), versicolor - in 17 (2.7%), sycosis - in 15 (2.4%), lichen rosacea - in 16 (2.5%), alopecia areata - in 11 (1.7%), nodular prurigo - in 11 (1.7%), plantar warts - in 11 (1.7%),

keratoderma - in 19 (3.0%), discoid lupus erythematosus - 8 (1.3%), limited scleroderma - in 6 (0.95%), prickly lichenoid - in 5 (0, 79%), rosacea - in 4 (0.63%), Darier's disease - in 3 (0.47%) and mucosal candidiasis - in 3 (0.47%). Parapsoriasis, ichthyosis, cheilitis, senile keratoma, aphthous stomatitis were noted in 2 cases.

The analysis of the age qualification of patients with vitiligo showed the predominance of adults. So, it was revealed in 40 (81.6%) adults and only in 9 (18.4%) children. With the distribution of patients with vitiligo by age, it was noted that this dermatosis suffered from up to 5 years 1 patient (2%), from 6 to 14 years old - 8 (16.3%), from 15 to 20 years old - 13 (26.5%), from 21 to 30 years old - 11 (22.5%), from 31 to 40 years old - 7 (14.3%), from 41 to 50 years old - 4 (8.2%), from 51 to 60 years old - 3 (6.1%) patients, 60 and older - 2 patients (4.1%).

The development of depigmentation of certain areas of the skin causes various socio-psychological changes in patients. Therefore,

most of them hide their illness and carry out treatment intermittently, inconstantly.

However, it should be said that early treatment in specialized clinics can yield successful results. Therefore, in our research, we paid special attention to the appearance of the first signs of the disease.

In our observations, the appearance of the first signs of the disease before the age of 5 years was noted by only 1 (2%) patient, from 6 to 10 years - in 4 (8.1%), from 11 to 15 years - in 16 (32.6%), from 16 to 20 years old - in 11 (22.4%), from 21 to 30 years old - in 7 (14.3%), from 31 to 40 years old - in 5 (10.2%), from 41 to 50 years - in 4 (8.1%) and over 51 years - in 1 (2%).

Consequently, in 32 (65.3%) patients, the first signs of the disease appeared before the age of 20. These data are consistent with the data of other scientists [6,9].

It is important to study the causes that contribute to the development of vitiligo (according to patients) (Table 4). As can be seen from Table 4, the nervous factor as the cause of the disease prevailed (26.5%) in relation to other factors. The occurrence of depigmentation with pathology of internal organs was associated with 20.4%, hereditary factor - 12.2%, intoxication - 6.1%, insolation - 10.2%, and 24.5% of patients could not indicate the cause of the disease.

Table 4.
Reasons leading to the development of depigmentation

Causes	Amount	%
Nervous factor	13	26,5
Internal organs disease	10	20,4
Hereditary factor	6	12,2
Intoxication	3	6,1
Insolation	5	10,2
Couldn't indicate the reason	12	24,5

A careful study of the anamnestic data of 49 examined patients revealed that 7 patients suffered from gastrointestinal tract pathology, 6 suffered from acute respiratory diseases and tonsillitis, 7 - viral hepatitis, 4 - measles, 2 - hypertension and 1 patient - prostatitis.

Examination by related specialists revealed concomitant pathology in 15 (40.8%) patients. 5 patients had gastritis, 1 - gastric ulcer, 2 - pyelonephritis, 2 - hypertension, 4 - thyroid pathology, 1 - discoid lupus erythematosus. In 5 (10.2%) of 49 patients, various skin diseases were found: atopic dermatitis - in 1 patient, limited neurodermatitis - in 1 patient, psoriasis - in 2, mycosis of the feet - in 1 patient.

Before the onset of the appearance of depigmented spots, 6 patients (12.2%) noted various subjective sensations. So, 4 patients had itching (8.2%), 1 (2%) - tingling and 1 (2%) - redness. Such subjective sensations have been described by other authors as well. For example, according to Yu.N. Koshevenko (2002) [46] before the appearance of vitiliginous spots, itching was noted in 5.3% of patients, tingling - in 0.7%, redness - in 1.6% and hyperpigmentation - in 0.2%.

In 30 (61.2%) of 49 patients noted that the first signs of the disease or progression of

vitiliginous foci were observed in the spring or spring-summer period, while in 10 (20.4%) patients the appearance of depigmented spots was observed in the autumn-winter period ... 9 (18.4%) patients could not associate the onset of the disease with the season of the year.

The relationship between the onset of vitiligo and seasonality is apparently explained by the location of depigmented spots in open areas. In 36 (73.5%) of 49 patients, they were located in open areas (face, neck, hands, feet), and in 13 (26.5%) - in closed areas.

To assess the prevalence and medical and social aspects of vitiligo, 3112 people aged 4 to 82 years from 6 regions of the Bukhara region were examined. Of the total number of surveyed men there were 1650, women - 1462.

Studies have shown that the frequency of skin pathology among the surveyed population in Bukhara region is 20.3%. These are mainly atopic dermatitis (13%), acne vulgaris (10.3%), mycosis of the feet (9.5%), psoriasis (8.1%), vitiligo (7.8%), polymorphic photodermatosis and photodermatitis (7, 6%), trichophytosis (4.7%), lichen planus (3.6%) and others. An analysis of the prevalence of pathologies of the skin and subcutaneous tissue by regions showed some prevalence in Bukhara (20.1%), Zhondor

(20%), Karakul fogs (22.3%) and especially in Romitan (25.3%) regions.

The frequency of detecting pathologies of the skin and subcutaneous tissue was slightly lower in Gijduvan (17.4%) and in the Peshku region (16.9%) compared to other regions.

Of the 3112 surveyed residents of the Bukhara region, 49 were diagnosed with vitiligo, which was 1.6% in relation to all surveyed and 7.8% in relation to the total number of skin diseases. There were 26 men, 23 women. We also noted some differences in the incidence of vitiligo in the districts of the Bukhara region. So, if in Romitan, Peshku, Zhondar and Gijduvan districts it was detected in 1.22, 1.33, 1.34 and 1.49% of the surveyed, then in Bukhara region it increased to 1.88%, and in Karakul region - to 2.15%.

The revealed differences are apparently due to the peculiarities of climatic, industrial and agricultural production. According to the literature, the overwhelming majority of patients with vitiligo begins before the age of 20 [16, 128]. In our studies, vitiligo was detected in 81.6% of adults and only in 18.6% of children. Moreover, adolescents (16.3%), young (49%) and mature (22.5%) ages suffered from this type of dermatoses. At the same time, the duration of the vitiliginous anamnesis varied within wide limits. So, out of the total number of cases, 22.5% of patients had a disease duration of up to 1 year, in 44.9% - from 1 to 5 years, and in 32.6% of those examined - more than 5 years. Analysis of the professional activity of patients with vitiligo showed that 36.7% of the surveyed were employees and students, and 34.7% were non-working people of working age.

In assessing the effectiveness of treatment, factors such as the age of onset of the disease and the causes of the onset of primary vitiliginous spots are important.

The analysis of the onset of the disease depending on age showed that the appearance

of the first signs of the disease was noted at the age of 6 to 10 years by 8.1%, patients from 11 to 15 years old - 32.6%, from 16 to 20 years old - 22.4%, from 21 to 30 years old - 14.3%. As can be seen from the presented material, the first vitiliginous spots in most patients appeared at the age of 11 to 15 years, when the production of sex hormones is activated, the menstrual function in girls is formed, secondary sexual characteristics and reproductive function of young men and the sensitivity of adolescents to stress factors increases. [3.5].

It is important to study the causes that contribute to the development of vitiligo. The analysis of the reasons in the examined patients showed that the nervous factor is in the first place for causative factors (26.5%). This seems to be due to the fact that the common substrate for the synthesis of catecholamines and melanin is the amino acid tyrosine [4]. In second place is the pathology of internal organs (20.4%), in third place is family predisposition (12.2%), only then is intoxication (6.1%) and insolation (10.2%).

It is important to note here that about ¼ of the patients were unable to indicate the cause of vitiliginous spots.

Considering the important role of somatic diseases in the appearance and progression of depigmented areas, we, together with related specialists, examined all 49 patients with vitiligo. Concomitant somatic pathology was detected in 20 (40.8%) patients and skin - in 5 (10.2%).

Conclusion

Thus, our epidemiological and medico-social studies of the population of the Bukhara region showed that the incidence of vitiligo among the population is 1.6%, and among skin diseases - 7.8%. Men and women get sick about the same (53 and 47%, respectively) and mainly between the ages of 15 and 30.

LIST OF REFERENCES:

1. Koshevenko YUN. Human skin. Variants of pathogenic effects on the structure and function of the skin, causes, pathophysiological foundations and principles of treatment of its diseases. T.2. Moscow, RF: Medicine; 2008.754 p.
2. Arican O, Kurutas EB. Oxidative stress in the blood of patients with active localized vitiligo. Acta Dermatoven. 2008; 17 (1): 12-5.
3. Zoirov PT, Sobir SI. Features of the clinical course of vitiligo, taking into account the type of the nervous system. Healthcare of Tajikistan. 2010; 4: 54
4. Krüger C, Schallreuter KU. A review of the worldwide prevalence of vitiligo in children / adolescents and adults. Int J Dermatol. 2012; 51 (10).
5. Yunusova E.I., Yusupova L.A., Garaeva Z.Sh, Mavlyutova G.I. Features of

- pathogenesis and therapy of patients with vitiligo. Therapist. 2017; 11: 24-5.
6. Arifov S.S., Arifova M.Kh. Vitiligo. - Tashkent: O'qituvchi, 2006.167
 7. Arifov S.S., Davletova L.S. The prevalence of vitiligo in various regions of Uzbekistan // News of Dermatology and Venereology. –2002. –№2. - P.20.
 8. Mavlyanova Sh.Z., Tilavberdiev Sh.A. Features of the distribution and clinical course of vitiligo in the city of Chirchik, Tashkent region // Actual problems of dermatology and venereology: Materials of the scientific-practical conference. - Tashkent, 2006. - pp. 95-97.
 9. Taïeb A, Picardo M. Epidemiology, definitions and classification. In: Picardo M, Taïeb A, eds. Vitiligo, 1st edn. Berlin, Germany: Springer, 2010: 13-24.

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