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Стаття надійшла 3.01.2021 р.

DOI 10.26724/2079-8334-2022-1-79-126-130
UDC 616.517-055.1:159.923

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INDICATORS OF THE LEVEL OF SUBJECTIVE CONTROL IN MALE PATIENTS WITH MILD OR SEVERE PSORIASIS WITHOUT TAKING INTO ACCOUNT SOMATOTYPE AND WITH TAKING INTO ACCOUNT SOMATOTYPE

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In men with mild or severe psoriasis, compared with healthy subjects without division into somatotypes, the level of subjective control showed a significant decrease in the value of interpersonal relationships and the ability to influence their own health. Significantly lower levels of general internality in patients with severe psoriasis were found in the distribution by body type in men of mesomorphic somatotype as well as the indicator of the level of subjective control in the field of failures, educational and interpersonal relationships in patients with mild and severe disease compared with the control group of a similar somatotype.

Keywords: psoriasis, severity, men, level of subjective control, body type.

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ОСОБЛИВОСТІ ПОКАЗНИКІВ РІВНЯ СУБ'ЄКТИВНОГО КОНТРОЛЮ У ХВОРИХ НА ПСОРІАЗ ЛЕГКОГО АБО ТЯЖКОГО ПЕРЕБІГУ ЧОЛОВІКІВ БЕЗ ТА З УРАХУВАННЯМ СОМАТОТИПУ

У хворих на псоріаз чоловіків легкого або тяжкого перебігу, порівняно зі здоровими досліджуваними без розподілу на соматотипи, за показниками рівня суб'єктивного контролю виявлено достовірне зниження цінності міжособистісних відносин і можливості впливати на власне здоров'я. При розподілі за типом тілобудови у чоловіків мезоморфного соматотипу встановлено достовірно нижчі рівні загальної інтернальності у хворих із тяжким перебігом псоріазу, а також показника рівня суб'єктивного контролю в галузі невдач, навчальних і міжособистісних відносин у хворих із легким і тяжким перебігом захворювання порівняно із групою контролю аналогічного соматотипу.

Ключові слова: псоріаз, тяжкість перебігу, чоловіки, рівень суб'єктивного контролю, тип тілобудови.

The study was conducted at the National Pirogov Memorial Medical University, Vinnytsya "Constitutional and psychological features of the origin and course of psoriasis in men of different somatotypes", state registration No. 0121U113156.

The idea of psoriasis origin under the influence of both internal and external environmental factors is widespread and recognized in the scientific community [14]. The genetic basis of psoriasis is polymorphism and increased expression of IL-22, which makes common the pathological basis of the psoriasis process together with atopic dermatitis [10]. In favour of the genetic component is evidenced by data on the high incidence of psoriasis among monozygotic twins (65–72 %) compared to dizygotic (15–30 %). The PSORS1 gene accounts for about 35–50 % of the hereditary burden of psoriasis [3].

However, new studies indicate overexpression of filaggrin, loricrin and involucrin in proriasis-affected skin. If normally, the last protein is found in the granular layer, then in psoriasis it is found in the spinous layer [10].

Increased content of miRNA fragments miR-203, miR-203-AS, miR-146a and others influencing local processes of angiogenesis, dermal cell differentiation, regulation of tumor necrosis factor-α, etc. was found in the skin [3].

Increased growth in the incidence of psoriasis is a problem of countries of different economic statuses, climatic regions, and the development of the health care system. Observations in Israel from 2011 to 2017 recorded more than 71 thousand cases of psoriasis. The average age of onset of the disease was 42.4 years. The prevalence increased from 2.5 % to 3.8 % (in 2011 and 2017, respectively) [11].

In the United States, the prevalence of psoriasis ranges from 0.51 to 1.23 %. Moreover, low-income patients are more likely (70 %) not to receive both biological drugs and other treatments for psoriasis (phototherapy, etc.) compared to well-off patients. Despite the fact that in moderate and severe psoriasis treatment is required by 27.3 % of patients from the general sample of patients. In addition, black people are 69 % less likely to receive psoriasis medication than white patients (0.31; 0.16–0.60) [13].

The distribution of severity according to the Yeung H. sample is: 51.8 % of persons with the mild course, 35.8 % of persons with the moderate course, and 12.4 % with the severe course. Psoriasis is most often associated with chronic lung disease, diabetes, liver disease, myocardial infarction, peptic ulcer disease ($p<0.05$ for all) [15].

Patients with psoriasis have different needs for the quality of treatment depending on age and sex. Thus, surveys of 5,343 patients indicate that people over 65 pay more attention to the quality of sleep, fewer side effects of treatment, and fewer visits to the doctor. Women have greater needs for treatment than men and have greater differences in feelings of depression, quality of sleep and feelings of ability to work [9].

78.9 % of patients with psoriasis have depression, and 76.7 % feel anxious, according to Lakshmy S. et al. [8]. There is also a correlation between the severity and duration of psoriasis and the occurrence of depression, stress and anxiety [8].

These data encourage in-depth study of the interaction of psychological, somatometric indicators with the severity and type of psoriasis in the population, taking into account their age and sex.

The purpose of the study was to determine the features of the indicators of subjective control in male patients with mild or severe psoriasis without and taking into account the body type.

Materials and methods. Men aged 22 to 35 years with psoriasis (n=100, including 32 mild and 68 severe; mesomorphs: 28 – mild and 55 – severe, endo-mesomorphs: 4 – mild course and 9 – with severe course) on the basis of the Department of Skin and Venereal Diseases with a course of postgraduate education National Pirogov Memorial Medical University, Vinnytsya and the Military Medical Clinical Center of the Central Region, determined the somatotype by the method of Heath Carter (1990) and evaluated the level of subjective control on the basis of the J. Rotter scale in the Research Institute named after Bekhterev and published by Bazhin E. F. et al. [1]. This personal questionnaire is designed to diagnose internality – externality. USK_1 – indicator of the scale of general internality of the level of subjective control over Rotter; USK_2 – an indicator of the level of subjective control in the field of achievement according to Rotter; USK_3 – an indicator of the level of subjective control in the field of failure according to Rotter; USK_4 – an indicator of the level of subjective control in the field of family relations according to Rotter; USK_5 – an indicator of the level of subjective control in the field of educational (professional) relations according to Rotter; USK_6 – an indicator of the level of subjective control in the field of interpersonal relations according to Rotter; USK_7 is an indicator of the level of subjective control over Rotter's health and illness.

Committee on Bioethics of National Pirogov Memorial Medical University, Vinnytsya (protocol № 2 From 20.02.2020) found that the studies do not contradict the basic bioethical standards of the Declaration of Helsinki, the Council of Europe Convention on Human Rights and Biomedicine (1977), the relevant WHO regulations and laws of Ukraine.

The control was the level of subjective control of 82 practically healthy Ukrainian men (39 of whom had a mesomorphic somatotype and 13 had an endo-mesomorphic somatotype) selected from the database of the National Pirogov Memorial Medical University, Vinnytsya.

Statistical processing was performed in the license package “Statistica 5.5” using non-parametric evaluation methods. The reliability of the difference between the values between the independent quantitative values was determined using the U-Mann-Whitney test.

Results of the study and their discussion. Assessment of the level of subjective control provides an opportunity to assess the localization of human control over important events in general, as well as in the field of achievements, failures, intra-family, educational and interpersonal relationships, health and disease. There is an external type of locus of control (perception of life events because of predominant or even exclusive influence of external factors, coincidence, etc.) and an internal type of locus of control (perception of events as a natural result of their own activities).

Men without regard to body type according to the indicators of the level of subjective control in the field of failures (USK_3), in fact, dissatisfaction with life, showed a tendency to decrease internality in the group with severe psoriasis, compared with healthy men (table 1).

Table 1

Comparison of indicators of the level of subjective control between healthy and psoriasis patient's men without taking into account somatotype (M±σ)

Indexes	Healthy	Patients with psoriasis		P_{h-mc}	P_{h-sc}	P_{mc-sc}
		MC	SC			
USK_1	4.831±1.765	4.813±1.674	4.791±1.719	>0.05	>0.05	>0.05
USK_2	5.649±1.783	5.844±1.568	5.985±1.754	>0.05	>0.05	>0.05
USK_3	5.130±1.794	4.938±1.777	4.582±1.819	>0.05	**=0.067**	>0.05
USK_4	5.922±1.876	6.375±1.409	5.821±1.687	>0.05	>0.05	>0.05
USK_5	4.104±1.527	4.031±1.257	4.358±1.602	>0.05	>0.05	>0.05
USK_6	6.221±1.722	5.469±1.244	5.552±1.560	**<0.05**	**<0.05**	>0.05
USK_7	6.182±1.812	5.000±1.295	5.045±1.482	**<0.001**	**<0.001**	>0.05

Notes: MC – mild course of the disease; SC – severe course of the disease; P_{h-mc} – the reliability of the differences between the relevant indicators between healthy and patients with psoriasis with MC; P_{h-sc} – the reliability of the differences between the relevant indicators between healthy and psoriasis patients with SC; P_{mc-sc} – the reliability of the differences in the relevant indices between patients with psoriasis with MC and SC.

There was a significant decrease in the value of interpersonal relationships (USK_6) in both groups of men with psoriasis without taking into account somatotype compared with the control group.

Also in both groups of patients without taking into account somatotype, the predominance of external locus of control was found, as evidenced by a significant reduction in the ability to influence their own health (USK_7) in patients with mild and severe dermatosis compared to the control group.

No significant differences were found in the general level of internality, the level of subjective control in the areas of achievement, failure, family, educational (professional), interpersonal relationships and in health and disease between groups of patients without taking into account somatotype with varying severity of psoriasis.

The following features of the subjective control index over various spheres of social, professional and personal life have been identified in the distribution of subjects by body type.

According to the index of the general internality of the level of subjective control (USK_1), there was a tendency (p=0.066) to decrease internality in the group of mesomorphs with severe psoriasis (4.741±1.729 st.) compared to the control group of similar somatotype (5.361±1.869 st.).

The index of the subjective control level in the field of achievement (USK_2) in male endo-mesomorphs with mild psoriasis (7.000±1.414 st.) tends (p=0.060) to increase compared to the control group of similar somatotype (5.417±0.996 st.).

The level of subjective control in the field of failures (USK_3) in male mesomorphs with mild (4.750±1.481 st.) and severe (4.574±1.968 st.) psoriasis is significantly lower (p<0.05) compared to the control group of similar somatotype (5.889±1.879 st.).

The level of subjective control in the field of educational (professional) relations (USK_5) in male mesomorphs with mild (5.393±1.227 st.) and severe (5.537±1.563 st.) course of psoriasis was significantly lower (p<0.05) compared to the control group of similar somatotype (6.528±1.647 st.).

The level of subjective control in the field of interpersonal relations (USK_6) in male mesomorphs with mild (4.929±1.359 st.) and severe (4.982±1.447 st.) psoriasis was significantly lower (p<0.05) compared to the control group of similar somatotype (6.417±1.977 st.).

Today, the problem of improving the quality of life in patients with psoriasis remains relevant and socially significant around the world. Statistical analysis of this dermatosis incidence shows its steady growth in both children and adults and the elderly [12].

The fact of the disease was experienced by people in different ways, but in any case, contact with it was painful and caused changes that did not always help to overcome the disease. In the literature they are described as critical, emotionally difficult, tense, conflictual, pathogenic, stressful, problematic. The situation of severe dermatological disease is united by the fact that it is unusual and imposes requirements on the patient that exceed his normal adaptive potential [7].

Currently, there is indirect evidence of the involvement of psychological factors in the etiopathogenesis of exacerbations and complications of psoriasis. Among the most common behavioral disorders are anxiety and emotional depression. In the period of exacerbation of psoriasis, the frequency of mental disorders varies in the range of 42–56 %, and in the period of remission is observed only at 12 %. More and more attention is paid to the problems of adaptation of patients to the state of health, the factors of psychological readiness and commitment to treatment are revealed. Long-term maintenance of compensation for psoriasis is impossible without the active participation of the patient in the treatment process. Following the therapeutic regimen for this disease is probably one of the most difficult tasks in the medicine of chronic dermatoses. Control and treatment measures are carried out for patients on a daily basis, significantly affect their lifestyle, force them to limit social contacts, hinder self-realization. In the case of exacerbation, it is difficult to meet current needs, which leads to a decrease in quality of life [6].

At the same time, the more consciously and productively the patient participates in the treatment, the higher is the effectiveness of preventing exacerbations of this pathology. The patient's position on treatment is characterized by the locus of his subjective control [5]. In the literature on the study of subjective control in chronic dermatoses, there are 2 polar types of attitudes to treatment. In one of them, inherent in the external type, the very possibility of effective therapy is denied or the responsibility for the treatment process is fully transferred to other persons (usually doctors). In the second, inherent in the internal, the treatment process is considered as a result of their own activities. The external type of subjective control can be associated in patients with psoriasis with different variants of control and therapeutic regimens, the worst compensation of the disease. On the contrary, the internal type is associated with the patient's desire to achieve the fastest and longest remission [2, 4].

Thus, the assessment of the level of subjective control on the basis of the J. Rotter scale opens up to the doctor the possibility of influencing the patient's position. Regardless of the severity of the disease, when psoriasis sufferers face their own failures and troubles, they may perceive them as the result of actions that do not depend on their efforts and have external causes, which can play a protective role in reducing anxiety and insecurity. In the vast majority of patients with different disease courses without taking into account somatotype and in patient’s mesomorphs in the field of interpersonal, professional relationships, internality is reduced, i.e. they have less desire to take responsibility for interpersonal and professional relationships. Patients also tend to consider family relationships dependent on the influence of other family members and coincidences. Low internal health and disease in patients taking into account somatotype and psoriasis of varying severity in patient’s mesomorphs indicate an urgent need to change psoriasis patients' perceptions of responsibility for their health and increase their personal interest in recovery. In male endo-mesomorphs with mild psoriasis, the level of subjective control in the field of achievement has a pronounced tendency to increase compared to the control group of similar somatotype (and the level of internality was the highest compared to all comparison groups). The identified patterns can be explained by both socio-psychological characteristics and personal characteristics of the subjects. With this pathology it is necessary to organize lectures in the health school system, to carry out psychotherapeutic work within the framework of rational-behavioral psychotherapy.

Conclusions

1. Sick men without taking into account somatotype with different psoriasis course are more external to health and disease, in the field of failures and interpersonal relationships compared to the control group of subjects. This indicates less responsibility for one's health, deteriorating psychological state instead of the ability to overcome stress, socialize and self-realize.

2. It was found that patient’s men with psoriasis of mesomorphic body type with varying degrees of severity are characterized by greater externality of subjective control in general, in the field of failures, learning and interpersonal relationships, and patient’s men endo-mesomorphic – greater internality in the field of achievement similar somatotype.

3. The identified features of the level of subjective control in men with psoriasis indicate the important role of psychological factors in the etiopathogenesis of complications of this dermatosis, which, in turn, justifies the need for psychological assistance to patients regardless of severity.

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Стаття надійшла 12.01.2021 р.

DOI 10.26724/2079-8334-2022-1-79-130-134
UDC 614.2:355.72:616.12-02

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PRIMARY AND SECONDARY PREVENTION OF CARDIOVASCULAR PATHOLOGY IN INJURED WITH COMBAT TRAUMA

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The purpose of the study was to develop and implement measures for primary and secondary prevention of cardiovascular pathology in injured with combat trauma. The data of 448 injured with combat trauma who were admitted to the National Military Medical Clinical Center «Main Military Clinical Hospital» were analyzed. Analysis of the average values of biochemical blood parameters showed the presence among injured with combat trauma and signs of cardiovascular disease more pronounced metabolic disorders, cytolysis and inflammation compared with injured without such complication: high levels of fibrinogen (by 11.1 %, p=0.0294), glucose (by 11.1 %, p=0.0004), asparagine transaminase (by 74.6 %, p=0.0005), alanine transaminase (by 58.4 %, p=0.0013), and lower levels of total protein (by 7.1 %, p=0.0008). The obtained results allowed us to offer hypermetabolism syndrome as one of the mechanisms of cardiovascular pathology development in injured with combat trauma, as well as to develop and implement approaches for prevention of this syndrome associated with the secondary pathology of the cardiovascular system.

Key words: metabolism, psychological support, military medicine, cardiology.

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ПЕРВИННА ТА ВТОРИННА ПРОФІЛАКТИКА СЕРЦЕВО-СУДИННОЇ ПАТОЛОГІЇ У ПОСТРАЖДАЛИХ, ЯКІ ОТРИМАЛИ БОЙОВУ ТРАВМУ

Метою роботи було розробити та запровадити заходи первинної та вторинної профілактики ураження серцево-судинної системи у постраждалих, які перенесли бойову травму. Були проаналізовані дані 448 постраждалих з бойовою травмою, які поступали до Національного військово-медичного клінічного центру «Головний військовий клінічний госпіталь». Аналіз середніх величин біохімічних показників крові показав наявність у постраждалих з бойовою травмою та ознаками ураження серцево-судинної системи більш виражених метаболічних порушень, цитолізу та запалення порівняно з постраждалими, які не мали цього ускладнення травмування: вищі рівні фібриногену (на 11,1 %, p=0,0294), глюкози (також на 11,1 %, p=0,0004), аспарагінової трансамінази (на 74,6 %, p=0,0005) та аланінової трансамінази (на 58,4 %, p=0,0013), та нижчі – загального білку (на 7,1 %, p=0,0008). Отримані результати дозволили запропонувати в якості одного з механізмів розвитку ураження серцево-судинної системи у постраждалих з бойовою травмою синдрому гіперметаболізму, а також обґрунтувати, розробити та запровадити заходи профілактики цього синдрому, асоційованого з розвитком вторинної патології серцево-судинної системи у постраждалих, які перенесли бойову травму.

Ключові слова: метаболізм, психологічна підтримка, військова медицина, кардіологія.

The work is a fragment of the research project "Development of modern methods of diagnosis and treatment of purulent-septic complications in combat surgical trauma", state registration No. 0120U101834.

Studies of the last 7 years show that people who have suffered a combat trauma in the area of the Anti-Terrorist Operation (ATO)/Joint Forces Operation (JFO), in addition to health problems directly related to the injury, may experience secondary pathology of internal organs. The frequency of such complications according to various data can reach 40 % [8]. Most often in the first 2 weeks after injury, there are signs of the pathology of the cardiovascular system (15.4 %) and hepatopathy (9.9 %) [8]. Moreover, the incidence of secondary pathology of the cardiovascular system reaches 92.5 % among patients who were treated for combat trauma in the intensive care units [4].

Secondary pathology of the cardiovascular system as a consequence of combat trauma is defined as cardiovascular abnormalities in the wounded outside the area of injury, due to impaired neuroendocrine