

PSYCHOSOMATIC CHARACTERISTICS OF PATIENTS WITH RHEUMATOID ARTHRITIS AND GOUT

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ABSTRACT

The results of a comparative analysis of the psychosomatic status of patients with rheumatoid arthritis and gout are presented. It is shown that in all patients with rheumatoid arthritis, the level of quality of life decreases regardless of the drug therapy. There were no signs of depression in patients with rheumatoid arthritis and gout. Patients with rheumatoid arthritis have an increased level of anxiety, most pronounced in the presence of a high degree of laboratory activity, III–IV radiological stages; restrictions of non-professional, professional activity and self-service (III-IV functional classes). Patients with gout positively assess the general state of health and physical functioning. The high level of joie de vivre, self-confidence, and positive self-esteem found in patients with gout indicate an inadequate assessment of the severity of the disease and, as a consequence, low adherence to treatment, which correlates with hyperuricemia.

Keywords: psychosomatic characteristics, rheumatoid arthritis, gout, anxiety, depression, quality of life, amitriptyline, hyperuricemia.

INTRODUCTION

Environmental factors, including psychoemotional factors, play an essential role in the development of rheumatic diseases (RH). However, to date, there is an extremely limited amount of evidence that provokes the role of psychosocial factors in the development of RH. Depressive disorders among patients with RH are most common in rheumatoid arthritis (RA). Epidemiological studies show that mental disorders occur in more than 60% of RA patients. Anxiety-depressive spectrum disorders prevail among them, more than a third of RA patients have signs of "major" depression or dysthymia. Prevalence depression in the general population is 5-8% . According to the literature, the frequency of depressive disorders in RA ranges from 11 to 65%, anxiety disorders – from 13 to 44.4%. If at the onset of the development of RA, both psychogenic and nosogenic anxiety and depressive disorders are more often manifested in the psychopathological picture, then as the disease develops, the severity of depressive disorders increases markedly with a decrease in quality of life (QOL), especially in the absence of effective treatment, chronic pain syndrome.

RA and gout are systemic chronic diseases, they are united by a high frequency of occurrence in recent years and the defeat of people of working age. RA is an autoimmune rheumatic disease of unknown etiology characterized by the development of chronic erosive arthritis (synovitis) and systemic inflammatory damage to internal organs.

Women get sick more often than men 2-5 times, the ratio of men and women is on average 1:3. The peak incidence of RA falls on 40-45 years. The prevalence of RA is 0.38–1.4%. A high incidence of RA is noted in close relatives of patients – 3.5%, especially in women – 5.1%. The

social significance of RA is due to the following factors: 33% of patients are forced to leave work in the first 5 years of the disease; the mortality rate of RA patients is 2.5 times higher than in the population. The main reasons for reducing the life expectancy of RA patients by 5-10 years are cardiovascular diseases (stroke, acute myocardial infarction), secondary amyloidosis, concomitant infections (pneumonia, suppuration of soft tissues); survival in RA is comparable to Hodgkin's disease, diabetes mellitus, stroke.

Gout is a systemic disease in which sodium monaurate crystals are deposited in various tissues and individuals with hyperuricemia develop inflammation caused by external environmental and/or genetic factors.

The frequency of gout in different populations varies and ranges from 5 to 50 per 1000 men and 1-9 per 1000 women. The ratio of men and women is 7:1, men have a peak incidence of 40-50 years, women - 60 years and older. The course of the disease proceeds paroxysmally; according to the nature of the course, acute gouty arthritis, intermittent course and chronic gouty arthritis are distinguished, despite the fact that it is a chronic disease. Most often, the disease debuts with arthritis of the I metatarsophalangeal joint of the feet. In 15-20% of patients, gout debuts with the defeat of others joints: 2-4 metatarsophalangeal, ankle, knee. In 5% of cases, polyarticular onset of the disease is observed.

The main cause of death of patients with gout is renal failure and complications of cardiovascular diseases. The reason for the decrease in QL in gout can be both comorbid diseases and the actual defeat of the musculoskeletal system, especially in chronic arthritis involving a large number of joints deformities and tofuses.

In the middle of the last century, E.M. Tareev wrote: "The prognosis for life with gout is largely determined by concomitant progressive cardiovascular diseases: coronarosclerosis, hypertension, nephroangiosclerosis. By themselves, gouty disorders, as a rule, are not life-threatening. However, joint changes can significantly interfere with movement and reduce the ability to work of patients."

In domestic medicine, the influence of somatic illness on the mental state is considered in the aspect of iatrogeny. It is believed that the overall effect of psychological impact is associated with ideas about the scale of the disease, changing the usual life stereotype. The disease has a somatogenic effect due to developing intoxication, metabolic disorders, which is reflected in the level of mental functioning. Thus, somatic disease has a double effect: psychogenic and somatogenic.

An important difference between the psyche of a somatically ill person from a healthy one is the awareness of the fact of the existing disease. With the development of somatic disease, depending on its severity, individual psychological and psychopathological phenomena occur in the patient, which is associated with initial changes in the work of certain functional systems through interoreceptive signals from affected tissues and organs. Gradually, changes are formed in the work of the whole organism, adapting to the new conditions of existence within the framework of the disease, which affects the patient's well-being and his vitality. The appearance of new, incomprehensible sensations causes protective psychological reactions in the form of anxiety, health concerns, including symptoms specific to the lesion of this organ.

In RA, rather complex somatopsychic disorders are detected. In such patients, due to the peculiarities of the somatic disease, the usual way of life often completely changes, adaptation

problems arise. Personal and social conflicts, changes in the quality of life determine the possibility of the development of mental deviations of various depths. The pathognomonic disorders for RA include asthenia, anxiety depression, mosaic personality pathology. The genesis of adaptation disorders and neurotic syndromes is complex and determined by the interaction of somatogenic, psychogenic, constitutional and personal factors contributing to the individualization of the dynamics of disorders in each specific case. With the development of chronic gouty arthritis, the QOL level of patients decreases, primarily concerning physical health. This may occur due to the development of persistent functional disorders, as well as violations of the social adaptation of patients with gout.

THE PURPOSE OF THE STUDY

To conduct a comparative analysis of the psychosomatic status of patients with RA and gout.

MATERIALS AND METHODS

The study involved 67 patients aged 25 to 75 years. All patients were divided into three groups. Group I included 16 women and 7 men (average age of women – 53.6 ± 10.8 years, men – 52.7 ± 13.9 years) with reliable according to the criteria of the Association of Rheumatologists Uzbekistan was diagnosed with rheumatoid arthritis. Seropositivity was detected in 17 (73.9%) patients, positivity of antibodies to cyclic citruline peptide (ADC) was detected in 18 (78.2%) patients. The duration of the disease varied from 6 months up to 24 years (average duration 7.2 ± 5.23 g). Patients with advanced (34.8%) and late (52.2%) clinical stages prevailed; medium (56.5%) and high (26.1%) degrees of disease activity activity score – 28 (DAS-28); II (39.1%) and III (39.1%) radiological stages; 2nd (39.1%) and 3rd (34.7%) functional classes; extra-articular manifestations (73.9%). As basic therapy, group I patients received the "gold" standard of basic therapy – methotrexate (10-20 mg/week), 75% of patients in this group received the antidepressant amitriptyline (25-50 mg/day).

Group II included 14 women and 4 men (average age – 47.6 ± 13.1 and 55.7 ± 10.7 years, respectively) with a reliable diagnosis of rheumatoid arthritis according to the criteria of the ARU. All patients showed positivity for rheumatoid factor (RF) and ADC. The duration of the disease varied from 1 to 21 g. (average duration of 7.1 ± 4.7 g.). Patients with advanced (22.2%) and late (61.1%) clinical stages prevailed; low (33.3%) and medium (55.5%) degrees of activity according to DAS-28; II (44.4%) and III (38.8%) radiological stages; 2nd (88.8%) functional class; extra-articular manifestations (77,7%). As basic therapy, group II patients received methotrexate (7.5–12.5 mg/week) + infliximab (3 mg/kg, at least 3 infusions performed).

Group III included 26 men aged 51.3 ± 8.4 years with a criterion-confirmed diagnosis of gout. The average duration of the disease was 9.2 ± 7.6 years. Patients with chronic tofus gout prevailed (73.1%), with arthritis of more than 3 joints (53.9%). Extra-articular manifestations were represented by peripheral tofuses (53.9%) and urate nephrolithiasis (53.9%). As pharmacotherapy, 73.1% of patients in this group received allopurinol (100-300 mg/day) outside of acute gouty arthritis, as well as cryoplasmosorption (61.5% of patients). The average level of uric acid they have it was 434.1 ± 63.9 mmol/l.

Patients of all 3 groups received NSAIDs – selective cyclooxygenase 2 inhibitors: movalis 15 mg/day; or celebrex 200 mg/day, or arcoxia 60–120mg/day. In addition, all patients underwent physical and standard laboratory tests, joint radiography. The psychosomatic status was studied using the QOL assessment questionnaire SF-36, the Tsung 9 scale (determination of the level of anxiety and depression), the MINI-MULT questionnaire and TOBOL (determination of the prevailing type of attitude to the disease).

In statistical data processing, the group averages, variance, and standard deviation were used, which were calculated using the "Descriptive Statistics" tool. The nonparametric Mann-Whitney U-test was used for the distribution of a feature that differs from the normal one. For final conclusions, the results were considered at the level of confidence ($p < 0.05$).

RESULTS AND THEIR DISCUSSION.

It was found that in patients of all 3 groups, the values on the MH scale are at the same level. At the same time, reliable ($p < 0.05$) differences between the 3rd and 1st, 2nd groups are determined in schools GH, PF, RP. In patients of group 3, the GH scale index was 61.6%, but in groups 1 and 2 it did not exceed 42%. At the same time, there were no significant differences in the RA groups (41.4% – group 1 and 37.3% - group 2). Patients with RA have a worse assessment of their health and treatment prospects than patients with gout. A higher level of the PF scale compared to RA patients indicates that physical activity (walking, climbing stairs, carrying weights, etc., restriction of non-professional activities) of RA patients is largely limited by their state of health.

According to the scale of role functioning due to physical condition (RP) in all three groups, the indicator is below 45%. At the same time, in the EARLY age groups, the scale level does not exceed 21%, which indicates a significant limitation of non-professional daily activities by physical condition. This is consistent with the characteristics of the groups in terms of the parameters of the X-ray stage, DAS-28 activity and FC.

In the group of patients with gout, the level of the SF scale was 52%, in patients with RA – 43%. The greatest decrease in RA was noted on the RP and RE scales. This indicates that RA patients have significantly limited social contacts, daily activities, and a reduced level of communication. Patients with gout, in comparison with patients with RA, positively assess the general state of health and physical functioning.

Probably, the low estimates of the influence of the emotional state on the role and social functioning of RA patients are associated with their characterological characteristics (a tendency to self-sacrifice and dependence of an exaggerated willingness to help; they try to compensate for depression, commitment, disappointment and resentment with "inner resilience"). This becomes especially evident when compared with patients suffering from gout. It is also impossible to exclude the influence of differences in the gender of the compared groups (RA patients are mainly women, gout – only men).

There were no differences in the studied groups according to the Tsung depression scale. The severity of depression is within normal values (up to 50 T-points). However, the presence of anxiety was revealed in patients of groups 1 and 2.

The highest level of anxiety (moderate degree – more than 0.5 T-points) was observed in patients with the maximum degree of RA activity, III– IV radiological stages and in the

presence of restrictions on non-professional and professional activities, as well as self-service (FC III-IV).

However, groups 1 and 2 have a tendency to increase indicators on the scales Hs (I gr. – 65.4 points; II gr. – 66.8 points), D (I gr. - 58.4 points; II gr. – 61.3 points), Hy (I gr. - 54.2 points; II gr. - 56.7 points), Pt (I gr. – 60.6 points; II gr. – 63.6 points). Patients with RA are characterized by the predominance of a passive personal position, self-doubt and stability of the situation, high sensitivity and subjection to environmental influences, increased sensitivity to danger. RA patients are different from patients gout developed a sense of responsibility, conscientiousness, commitment, modesty, increased anxiety about minor everyday problems, anxiety for their fate and the fate of loved ones. In patients with gout, compared with patients with RA, the indicators of similar scales are significantly lower. The results obtained confirm the position that uric acid is a powerful stimulant central nervous system by inhibiting phosphodiesterase, which is involved in the biosynthesis of steroid hormones. Uric acid prolongs the effect of adrenaline and norepinephrine on the central nervous system, and also has antioxidant properties, so a high level largely determines increased vitality.

In general, patients with gout were characterized by a tendency to hypomania (Ma – "optimism"), which was manifested by a high level of love of life, self-confidence, positive self-esteem, lack of inclination to seriously delve into complex problems, the predominance of carelessness and rosy hopes, confidence in the future, joyful perception of the environment. Patients with gout who do not adequately assess the severity of their condition are characterized by low adherence to treatment.

A harmonious type of attitude to the disease was revealed in group I RA patients receiving the antidepressant amitriptyline in complex treatment, and group II, where genetically engineered biological therapy with infliximab was performed, as well as in group III patients. In group I patients who did not receive amitriptyline in complex treatment (25%), an alarming type of attitude to the disease was revealed, which was manifested by continuous anxiety and suspiciousness about the unfavorable course of chronic disease, the development of possible complications, inefficiency and the dangers of ongoing or upcoming treatment, the search for any additional information about the disease and methods of treatment.

CONCLUSION

It was found that the level of QL was significantly reduced in RA patients. Patients with gout positively assess the general state of health and physical functioning. There were no signs of depression in patients with RA and gout. In RA patients, an increased level of anxiety was revealed, most pronounced in the presence of a high degree of activity, an advanced (III–IV) radiological stage, as well as restrictions on non-professional and professional activities, self-service (FC III-IV).

The psychoemotional status of RA patients was dominated by a tendency to hypochondria, depression, hysteria, psychasthenia (predominance of a passive personal position, self-doubt and stability of the situation, high sensitivity, increased sensitivity to danger, anxiety about minor everyday problems, anxiety for their fate and the fate of loved ones).

Patients with gout were characterized by a tendency to hypomania, with a high level of love of life, self-confidence and positive self-esteem. There was no tendency to seriously delve into

complex problems, carelessness, rosy hopes, confidence in the future, joyful perception of the surrounding prevailed. Patients with gout often inadequately assessed the severity of their condition, showed low adherence to treatment, which correlates with hyperuricemia.

A harmonious type of attitude to the disease was noted in patients with gout and RA who received the antidepressant amitriptyline (25-50 mg/day) and infliximab (3 mg/kg of at least 3 infusions) in complex treatment along with basic methotrexate therapy. RA patients who received standard basic therapy without additional amitriptyline were characterized by an anxious type of attitude to the disease. Correction of the emotional state with the help of the antidepressant amitriptyline at a dose of 25-50 mg / day is natural, taking into account the effect of the drug. We believe that the effect of the standard dosage of infliximab in the presence of at least 3 infusions performed, with respect to reducing the level of anxiety, is associated with a powerful anti-inflammatory effect, which determines the positive dynamics of the emotional background. Tumor necrosis factor α inhibitors are characterized by high efficacy, rapid onset of therapeutic action, active effect on articular and systemic manifestations of RA, significant effect on physical and psychological parameters of the disease, significant effect on QOL, as well as a relatively small number of adverse reactions.

Thus, in patients with RA with a significant decrease in the level of QOL, features in the psychoemotional status were revealed that are fundamentally different from patients with gout, depending on the characteristics of the disease and the therapy carried out. The use of amitriptyline in the complex treatment of RA at a dose of 25-50mg / day against the background of standard basic therapy with methotrexate + infliximab in standard dosage can improve the parameters of the psychoemotional status of patients.

Patients with gout, taking into account their psychoemotional characteristics, need to explain the nature of the course and prognosis of the disease in order to change their lifestyle, increase adherence to treatment, correct hyperuricemia to optimal values, slow down the progression of the disease and reduce the risk of complications.

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