ORIGINAL STUDIES

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FEATURES OF PSYCHOLOGICAL RESPONSE TO DISEASE AND DIFFERENTIAL APPROACH TO CORRECTION OF ANXIODEPRESSIVE DISORDERS IN PATIENTS WITH SERONEGATIVE ARTHRITIS

The purpose of the study is to investigate the nature of psychological response to disease and to assess effect of differential adjuvant therapy on psychosomatic status of patients with seronegative arthritis. Investigated in 33 patients with ankylosing spondyloarthritis and 36 patients with psoriatic arthritis was the nature of psychological response to the disease using the method for psychological diagnostics of types of attitude to disease, psycho-emotional status (Spielberger anxiety scale and Hamilton depression scale), and intensity of articular syndrome was assessed. Most of the patients in both groups showed high frequency of impaired social-psychological response to the disease (ankylosing spondyloarthritis: 69.7%, psoriatic arthritis: 69.4%) as well as elevated frequency of anxiodepressive disorder development. Differential approach to correction of psychosomatic status in seronegative arthritis patients allowed to achieve positive dynamics in all the studied parameters which conduced to optimization of treatment and rehabilitation.

Keywords:

Seronegative arthritis, psychological response to disease, psycho-emotional status, adjuvant therapy

INTRODUCTION

The results of many clinical epidemiological studies show that there is close connection between psycho-emotional disorders and chronic pain syndrome which is an integral component of rheumatologic pathology, in particular inflammatory seronegative arthritis (Levenson J., 2006; Bair M.J. et al., 2008). The most widely spread psycho-emotional manifestations of chronic pain are clinically pronounced deviations: anxiety, depression, apathy, fatigue and asthenia, elevated excitability, insomnia, irritability (Waheed A. et al., 2006; Belyalov F.I., 2010). Often enough these factors requiring additional correction conduce to enhancement of pain syndrome in the patients including those of rheumatologic profile (Katz W.A., 2000; Mease P.J. et al., 2004; Lysenko G.I., Tkachenko V.I., 2007; Voznesenskaya T.G., 2008). The pain itself is able to cause development of psycho-emotional disorders too. Therefore assessment of patient psychological state is a necessary component of the diagnostic complex in examination of patients with chronic pain syndrome (Amirdjanova V.N., Koylubayeva G.M., 2003).

It is due to this that in the complex treatment of patients with seronegative arthritis (ankylosing spondyloarthritis (AS), psoriatic arthritis (PsA)) it is reasonable to administer drugs of adjuvant action (anxiolytics, antidepressants, vegetocorrectors, myorelaxants) which do not produce direct analgesic effect but, next to intensity reduction of anxiodepressive and psycho-vegetative disorders, aid reduction of pain sensation (McCracken L. et al., 2004).

The purpose and target of the study is to investigate the nature of psychological response to disease and to assess effect of differential adjuvant therapy on psychosomatic status of patients with seronegative arthritis.

SUBJECT AND METHODS OF STUDY

The study involved 33 AS patients (25 men and 8 women) aged from 21 to 60 (average age: 43.7+/-1.7 years) with AS average duration: 8.1+/-0.85 years (the 1st observation group). The pathological process activity rate was determined using Bath AS disease activity index (BASDAI) in accordance with EULAR criteria. Minimal activity rate of inflammatory process was determined in 10 (30.3%) cases, moderate – in 14 (42.4%), maximal – in 9 (27.3%). In 23 (69.7%) cases the joint functional insufficiency (JFI) prevailed.

The 2nd group consisted of 36 patients with established in accordance with CASPAR 2006 (Taylor W. et al., 2006) criteria PsA diagnosis (21 men and 15 women) aged from 23 to 58 (average age: 43.6+/-1.4 years) with average duration of psoriasis: 16.9+/-1.1 years, PA: 9.5+/-0.62 years. In prevalence of lesions dominant was polyarthritis: 80.6%. The rate I of inflammatory process activity was determined in 12 (33.3%) cases, rate II – in 20 (55.6%), rate III – in 4 (11.1%).

The pain syndrome and stiffness in joints and spine, and fatiguability were assessed using 100 mm visual analog scale (VAS) by the patients themselves, and patient's own health (POH) index – using VAS by doctor and patient. Assessed were also erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) level in serum.

The nature of psychological response to disease was determined using psychological diagnostics method for types of attitude to disease (TAD) developed in the laboratory of clinical psychology of Saint-Petersburg Bekhterev Psychoneurological Institute (Vasserman L.I. et al., 2005). This method reflects personal response to disease and allows to identify patients with desadaptive types of response to disease. Depending on TAD the patients were united into three blocks. The first block includes harmonic, ergopathic and anosognosic TAD in which psychic and social adaptation is not essentially disturbed. The second block united the patients with intrapsychic orientation of personal response to disease (anxious, hypochondriac, neurasthenic, melancholic, apathetic attitude types). The persons of the third block feature intrapsychic orientation of personal response. These are the patients with sensitive, egocentric, dysphoric and paranoiac TAD for whom, similar to the second block, social adaptation disturbances are characteristic.

To examine psycho-emotional state the Spielberger self-assessment anxiety scale was used (Spielberger C.D., 1970) according to which <30 points anxiety level was assessed as low, 30 to 45 – moderate, >45 – high. To detect depression symptoms, the Hamilton depression scale (HDS) was used according to whose data in case of summing up the points obtained, 16 to 18 score in young and 18 to 20 score in elderly persons showed the presence of non-psychotic depressive state, and >18-20 points – possible psychotic depression (Hamilton M., 1969).

The patients of both groups with detected desadaptive types of response were differentially administered adjuvant therapy whose efficacy was estimated after the observation period had finished.

The statistical analysis of the obtained data is made using *Statistica* software package (*StatSoft Inc.*, USA, version 6.0).

RESULTS AND DISCUSSION

For the moment of examination start all the patients of both groups received continuous basic therapy – methotrexate in dosage of 12.5 to 15 mg/week or sulfasalazine in dosage of 2 g/day in two doses for 6 months to 6.3 years, as well as NSAIDs (dosage and choice of the drug was determined depending on inflammation intensity activity and individual tolerability of patient).

The TAD examination showed that in AS patients inadequate TADs prevailed diagnosed in 23 (69.7%) cases. Among them prevailed the patients with intrapsychic variant of direction of response to disease (the second response block): 16 cases most of whom were the persons with hypochondriac TAD which features anxiety and elevated hypochondria of patients with respect to unfavorable course and prognosis of the disease, and as a consequence – depressed state of mind and psychic activity. In 10 patients adequate TADs were diagnosed: harmonic and ergopathic, 5 each, which corresponds to the first TAD block in case of which psychic and social adaptation is not essentially disturbed.

Most of the PA patients (25(69.4%)) also showed inadequate TADs. Out of them 20 cases were the patients with intrapsychic variant of orientation of response to disease (the second response block). Here dominated mixed TADs (11 cases) of anxious-neurasthenic and anxious-hypochondriac type; among the remaining patients, anxious TAD: 5 observations; melancholic and neurasthenic – 2 cases each. The third response block (interpsychic variant) included 3 patients with sensitive TAD and 2 – with egocentric which feature desadaptive behavior with heteroaggressive trends in respect of wider public, disturbance of social functioning. 11 patients – 1st block (4 – harmonic, 5 – ergopathic, anosognosic (euphoric) – 1).

During testing the anxiety level using Spielberger method, in the patients of the 1st group the indexes of reactive anxiety (RA) and situational or personal anxiety (PA) were elevated (31.4+/-1.0; 38.4+/-1.4 points) compared to normal. HDS testing in patients of the 1st group gave data exceeding average standard indexes: 12.6+/-0.85 points.

In patients of the 2nd group RA and PA indexes were also much elevated (37.0+/-1.5; 45.4+/-1.5 points) as well as reliably higher than in the patients of the 1st group ($t=3.1$, $p=0.0028$; $t=3.4$, $p=0.0011$ respectively). HDS testing results showed that the average values in PsA patients significantly exceeded normal values – 16.5+/-1.1 points and were reliably higher than indexes of the 1st group patients ($t=2.8$, $p=0.0068$).

The results of the psychosomatic status study allowed us to differentially approach the administration of adjuvant therapy. All the patients of both groups who were detected inadequate TAD (to correct psycho-emotional disorders), in addition to the basic and anti-inflammatory therapy received by them, were administered the medications having anxiolytic and vegetocorrecting effect. The drugs were chosen in view of the features of the psycho-emotional disturbance types detected in the groups.

Thus, 23 patients of the 1st group were administered buspirone, 10 mg per intake twice a day, because the most characteristic for them were anxiety and elevated hypochondria. The administration for 25 patients of the 2nd group was hydroxyzine, 25 mg per intake (1 tablet) twice a day, which possesses, next to anxiolytic, additional antihistamine and antipruritic effect. The participants of both groups received adjuvant therapy during the entire observation period which lasted 1.5 months.

Efficacy of the conducted complex therapy was estimated according to the dynamics of indexes of clinical and laboratory activity, RA and PA level, HDS data.

Before treatment in the 1st group the following clinical and laboratory data were obtained: pain in spine: 69.2+/-3.2 mm, stiffness in spine: 67.7+/-3.5 mm, stiffness in joints: 52.6+/-3.7 mm, POH (patient): 66.0+/-3.4 mm, fatiguability: 68.3+/-2.9 mm, POH (doctor): 60.8+/-2.8 mm, ESR: 25.4+/-1.7 mm/h, CRP: 14.8+/-1.7 mg/l. In patients of the 2nd group the following results were registered: pain in joints: 66.7+/-2.8 mm, stiffness in joints: 61.2+/-3.4 mm, pain in spine: 63.7+/-4.2 mm, POH (patient): 64.8+/-3.4 mm, fatiguability: 63.1+/-2.3 mm, POH (doctor): 60.5+/-2.6 mm, ESR: 29.2+/-1.7 mm/h, CRP: 12.7+/-1.9 mg/l.

When the observation period was over, both groups evinced improvement in practically all the examined indexes of clinical and laboratory activity. So, in the first group reliably dropped fatiguability and POH index as determined by both doctor and patient ($p=0.018$; $p=0.03$; $p=0.012$ respectively); intensity of pain syndrome and stiffness in spine reduced as well as that of stiffness in joints ($p=0.032$, $p=0.08$, $p=0.023$ respectively). AS patients also marked the fall of inflammatory process activity – reliably significant reduction of ESR and CRP ($p=0.004$ and $p=0.021$ respectively). PsA patients registered regress in the disease cutaneous manifestations which probably made certain contribution to attainment of positive dynamics in POH (doctor, patient)($p=0.005$; $p=0.008$) and fatiguability of patient ($p=0.009$). In the 2nd group the positive dynamics was also registered regarding reduction of intensity of pain in joints ($p=0.036$) and spine ($p=0.016$) and decrease in ESR ($p=0.007$) and CRP ($p=0.025$) indexes of inflammation activity.

The significant improvement in psycho-emotional status of patients should be noted (table). So, reliable reduction is reached in RA, PA and HDS both in the 1st ($p<0.001$; $p<0.001$; $p<0.018$ respectively) and in the 2nd group (<0.001; $p<0.001$; $p<0.002$ respectively).

Table

Dynamics of HDS, RA, PA indexes in groups (M+/-m)

Index, points	1st group (n=23)			2nd group (n=25)		
	Before treatment	After treatment	p	Before treatment	After treatment	P
HDS	14.3+/-1.0	12.7+/-0.9	0.0018	19.5+/-1.1	18.4+/-1.1	0.002
RA	33.0+/-1.1	29.7+/-1.5	0.0004	40.5+/-1.6	38.8+/-1.7	<0.0001
PA	41.9+/-1.4	37.3+/-1.29	<0.0001	48.9+/-1.6	46.9+/-1.6	0.0002

For all the indexes in both groups the reliability of changes ($p<0.05$) is determined compared to the initial values.

The correlation analysis made in addition allowed to ascertain presence of reliable relationship between reduction in RA, PA and HDS points and regress of VAS points on the whole by >25%. Thus in the 1st group the reliable correlations were found with respect to RA and PA ($r=0.46$, $p=0.028$, $r=0.42$, $p=0.047$ respectively) as well as trend to correlation growth between point reduction in HDS and VAS ($r=0.37$, $p=0.086$). For the patients of the 2nd groups the investigated correlations were more significant ($r=0.46$, $p=0.019$; $r=0.45$, $p=0.025$; $r=0.4$, $p=0.046$). The results of the correlation analysis made confirm the truth of the approach we chose – that of administration of adjuvant therapy aimed at correction of psychosomatic disturbances and intensity reduction of clinical seronegative arthritis manifestations.

CONCLUSIONS

In the investigated groups the high frequency of disturbances was registered in the social and psychological response to disease which made in AS patients 69.7% of observations and in PsA group – 69.4%.

In the groups of patients with seronegative arthritis the desadaptive responses of different directions were identified: more characteristic for the persons with AS is hypochondriac TAD with anxiety, elevated hypochondria, depressive state of mind and depressiveness of psychotic activity; more frequently detected in PsA patients were anxious disturbances with various response variants.

The method of TAD psychological diagnostics allows us to differentially approach the correction of the psychosomatic status in the patient groups with seronegative arthritis which makes it possible to improve life quality of patients and conduce to optimization of treatment and rehabilitation.

BIBLIOGRAPHY

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