HETEROGENEITY OF FIBROMYALGIA: PSYCHOPATHOLOGICAL CHARACTERISTICS OF DIFFERENT SUBTYPES AND EFFICACY OF THERAPY

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Background: Fibromyalgia (FM) is one of the most complicated diseases in the rheumatological and therapeutic practice. Despite the relative success in diagnosing pathology and developing new diagnostic criteria, the treatment of FM remains uncertain. This, in particular, may be due to the presence of various subtypes of disease, which differ in their pathogenesis and, therefore, require differentiated therapy.

Objectives: to identify the subtypes of FM, to determine their basic psychopathological characteristics and adherence to therapy.

Methods: the study included 104 patients with FM according to 2010/2011 diagnostic criteria. All patients were questioned about their attitudes towards employment and sport, and determined the level of anxiety and depression by the HADS scale, as well as therapy compliance 2 months later.

Results: the results obtained support the presence of five subtypes of FM. Patients with a high level of anxiety (10.57±2.87) and minimal widespread pain index (WPI) (6.30±6.04) were included in Group 1. This group consisted of 40.35% of the total number of patients with the minimum average age (45 years) and the highest ratio of men/women (8:38). Group 1 was also characterised by the greatest employment (34 of 46 patients) and a relatively rare abandonment of physical exercises (14 of 46 patients). The second group of patients was conditionally called anxious-depressive because of the frequent detection of both anxiety and depression symptoms (11.67±3.64, respectively) with a moderate number of WPI (10.78±4.09). They differed from the Group 1 by mainly female sex and more frequent avoidance of physical exercises (8 of 18 patients). Group 3 (the proposed name is hysteroid) consisted of women with the maximum number of WPI (14.33±4.22) and low levels of anxiety and depression. Despite the average age working, they were mostly unemployed with the lowest level of adherence to physical activity (4 of 24 patients). The fourth subtype of FM included 23 patients with concomitant chronic diseases. They were expected to be the oldest (68 years on average) with a high number of painful areas (13.44±5.0), low levels of anxiety and depression. All of them refused to perform physical exercises and were unemployed. Finally, Group 5 included patients without concomitant affective and somatic disorders. This group has taken the middle position for all indicators, except the lowest level of anxiety and depression among all groups.

The lowest rates of therapy compliance were demonstrated in Group 3. At the same time, the time of communication with these patients was the maximum.

Conclusions: patients with FM are a heterogeneous group, differing in their psychopathological characteristics. Younger patients are more likely to exhibit an elevated level of anxiety and depression and are prone to catastrophize their sensations, while older patients usually have a severe somatic pathology. They are often found in therapeutic practice, which makes it necessary to conduct educational programs on FM diagnostic and management for general practitioners. We consider it very important to identify the hysteroid subtype of FM, since these patients are not inclined to seek recovery and represent a huge difficulty for the treating doctors. We proposed that they use their disease to attract the attention of patients, as they are not inclined to seek recovery and represent a huge difficulty for the treating doctors. We consider it very important to identify the hysteroid subtype of FM, since these patients are not inclined to seek recovery and represent a huge difficulty for the treating doctors. We proposed that they use their disease to attract the attention of patients.

Disclosure of Interest: None declared


THE ROLE OF THIOL-DISULFIDE HEMOSTASIS IN THE ETIOPATHOGENESIS OF FIBROMYALGIA

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Background: Fibromyalgia syndrome (FMS) is a chronic disease with unknown etiology, characterised by widespread pain, fatigue, sleep disturbance, cognitive dysfunction and anxiety. Oxidative stress has also been implicated in etiopathogenesis in recent years.

Objectives: In this study we aimed to investigate the role of thiol/disulfide balance in the etiopathogenesis of fibromyalgia, as an indicator of oxidative stress.

Methods: 98 female patients with fibromyalgia, 61 of whom were newly diagnosed and 37 were presently ongoing treatment and 82 healthy female controls were included in the study. Fibromyalgia impact questionnaire, pain visual analogue scale, Pittsburgh sleep quality index, fatigue severity scale, short form-36, tender point count, Beck depression inventory and Beck anxiety inventory were evaluated in both groups. To determine the oxidative balance, the thiol/disulfide balance was investigated by the new automatic measurement method developed by Erel and Neseloglu.

Results: Serum native thiol levels were 394.43±52.43 μM/L and 418.12±49.95 μM/L (p<0.002), total thiol levels were 429.55±35.9 μM/L and 440.95±8.7 μM/L (p=0.052) and serum disulphide levels were 17.5 (9.8) μM/L and 14.8 (10.3) μM/L in the FMS and control groups, respectively (p=0.002). In the FMS group, disulphide/native thiol percent ratios were statistically significantly lower than those of the control group. Serum native thiol levels (p=0.008) were 384.2 (76.7) μM/L, 387.6 (85.05) μM/L and 416.55±5.1 μM/L; disulphide levels were measured as 17.2 (7.5) μM/L, 18.3 (14.55) μM/L and 14.8 (10.3) μM/L newly diagnosed patients, treated patients and controls groups, respectively. Serum native thiol values at the thiol/disulphide balance did not improve disulphide in spite of being slightly approaching the control group in the treated patients. When the ratio of disulfide/native thiol was examined, it was seen that both newly diagnosed and treated patients remained in a balanced disulphide state. There were statistically significantly correlations between tender points (respectively p=0.02, r=0.241; p=0.039, r=0.213; p=0.039, r=0.213; p=0.039, r=0.213), SF-36 pain subscale (respectively p=0.002, r=0.256; p=0.041, r=0.216; p=0.042, r=0.209, p=0.041, r=0.207) and Beck anxiety inventory scores (respectively p=0.009, r=0.216; p=0.027, r=0.225; p=0.026, r=0.225; p=0.026, r=0.225) with disulphide levels, disulphide/native thiol, disulphide total thiol and native thiol total thiol ratio.