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Psychiatric manifestations of rheumatic diseases

**Hubert Wróblewski, Dariusz Chojeła, Aleksandra Zimna,
Ewelina Zygmunt, Anna Kozłowska, Monika Mierzwa, Kinga Wróblewska**

Faculty of Medicine, Medical University of Lublin

ORCID ID and email:

Hubert Wróblewski <https://orcid.org/0000-0002-1666-1650>; hwwroblewski@gmail.com

Dariusz Chojeła <https://orcid.org/0000-0002-6474-854X>; dariusz.chojeta@gmail.com

Aleksandra Zimna <https://orcid.org/0000-0002-8712-3497>; aleksandra_zimna97@wp.pl

Ewelina Zygmunt <https://orcid.org/0000-0002-3724-2164>; ewelinazygmunt26@gmail.com

Anna Kozłowska <https://orcid.org/0000-0001-6719-9331>; aniakozlowska6@o2.pl

Monika Mierzwa <https://orcid.org/0000-0002-6418-7535>; akinom142@gmail.com

Kinga Wróblewska <https://orcid.org/0000-0002-8740-9401>;

kinga.wroblewska.kw@gmail.com

Abstract

Introduction and purpose of the work: Rheumatic diseases are chronic diseases that cause symptoms in many systems of the human body. Their most common symptoms include pain and symptoms of arthritis, their deformities, fatigue, and malaise. The aim of the article is to present the symptoms and mental disorders occurring in the course of selected rheumatic diseases.

State of knowledge: The psychological symptoms are characteristic of systemic lupus erythematosus. Specified is a form of lupus called NSPLE (neuropsychiatric systemic lupus

erythematosus), which includes neuropsychiatric symptoms in the course of systemic lupus erythematosus. Psychiatric symptoms are also present in the course of other rheumatic diseases. Neuropsychiatric symptoms may affect up to 80% of patients with primary Sjogren's syndrome, with 50% to 80% ahead of diagnosis. It has been proven that systemic sclerosis causes microvascular damage, which may cause neuropsychiatric symptoms in the form of mood disorders, anxiety and cognitive disorders. In one study, 59% of patients with fibromyalgia experienced mania, which was more than twice as high as in the control group.

Summary: In the course of all rheumatic diseases presented by us, there are symptoms and mental disorders. They are often mood, cognitive and sleep disturbances. It should be emphasized that the etiology of psychiatric symptoms is multifactorial.

Key words: rheumatic diseases, psychiatric symptoms, depression

Introduction

As is well known, rheumatic diseases are chronic diseases that cause symptoms in many systems of the human body. It is estimated that almost every family in Europe is affected in some way. Their most common symptoms include pain and symptoms of arthritis, their deformities, fatigue, and malaise [1]. There is a known link between the autoimmune processes that underlie rheumatic diseases and mental disorders [2]. Therefore, the aim of our article is to present the symptoms and mental disorders occurring in the course of selected rheumatic diseases.

State of the art

Systemic lupus erythematosus

The psychological symptoms are characteristic of systemic lupus erythematosus. The disease classification criteria according to EULAR / ACR 2019, used to diagnose the disease (European League Against Rheumatism / American College of Rheumatology classification criteria for systemic lupus erythematosus) include symptoms such as: delirium and psychosis[3]. Moreover, a form of lupus called NSPLE (neuropsychiatric systemic lupus erythematosus) is specified, which includes neuropsychiatric symptoms in the course of systemic lupus erythematosus. In their meta-analysis, Meszaros et al. emphasize the fact that psychiatric symptoms occur in the vast majority of patients suffering from systemic lupus

erythematosus (SLE). Its most common indicators are cognitive dysfunction (even in 80% of people) and depression (even in 39%)[4], although other studies report a slightly higher incidence of anxiety disorders than depression[5]. In most cases, the cognitive decline is mild to moderate[6], while severe cognitive impairment affects from 3% to 5%[7]. Disturbances in attention, visual and verbal memory and executive functions are characteristic [5]. In turn, psychosis is extremely rare, most often secondary in patients treated with high doses of glucocorticosteroids [8,9]; in one study it occurred in 1 in 85 subjects[10]. Interestingly, psychosis develops most often in the first year of the disease and its symptoms disappear after intensive immunosuppressive treatment [11]. It should be emphasized that some patients experience symptoms for the first time after initiating glucocorticoid therapy, making it sometimes difficult to decide what is causing them [12]. A cohort study by Fernandez et al. also showed a higher incidence of psychiatric symptoms among patients receiving corticosteroids, but the relationship was not statistically significant[10].

Primary Sjogren's Syndrome

Taiwanese authors showed a significantly increased risk of depression, anxiety and sleep disorders in patients with primary Sjogren's syndrome compared to the general population, and the risk was higher in women, but it should be remembered that Sjogren's syndrome affects the female gender much more often [13]. Also the occurrence of bipolar disorder [14] and schizophrenia [15] it is more common among people with Sjogren's syndrome. Importantly, neuropsychiatric symptoms may affect up to 80% of patients with primary Sjogren's syndrome, with 50% - 80% of cases ahead of diagnosis[16]. Patients with primary Sjogren's syndrome may also have an increased incidence of cognitive impairment, which may precede the diagnosis of the disease by an average of two years. In most cases, they are presented as brain fog or MCI (Mild Cognitive Impairment) [17]. According to the data presented by Morreale et al. 31.1% of 87 patients with recently diagnosed primary Sjogren's syndrome had cognitive dysfunctions consistent with dementia[18] and in another study, 11% of people were diagnosed with severe severe cognitive impairment [19]. Interestingly, Chinese scientists have shown that people with primary Sjogren's syndrome are neurotic [20]. The literature also includes case reports of patients suffering from this rheumatic disease presenting psychotic symptoms, therefore primary Sjogren's syndrome should be considered in the differential diagnosis of people showing new psychotic symptoms [21,22].

Rheumatoid arthritis

One of the studies reporting the prevalence of psychiatric disorders in people with rheumatoid arthritis showed a higher incidence of depression (incidence rate [IRR] 1.46 [95% confidence interval (95% CI) 1.35-1.58, anxiety disorders (IRR 1 , 24 [95% CI 1.15-1.34], bipolar disorder (IRR 1.21 [95% CI 1.00-1.47])[23]. The results of studies on the incidence of schizophrenia are interesting. The first of them was carried out in the 1950s, when the protective effect of schizophrenia on the development of rheumatoid arthritis was

demonstrated [24]. This is somewhat contradicted by the study by Eaton et al., according to which the risk of developing rheumatoid arthritis (RA) is slightly higher compared to the general population. The authors emphasized, however, that the study required a diagnosis of RA before the diagnosis of schizophrenia, while in most cases this rheumatic disease begins somewhat later.[25]. Regarding the prevalence of schizophrenia in RA patients, studies have shown both a reduced risk of developing the disease[26], increased (hazard ratio [HR] = 0.69, 95% CI = 0.59-0.80), similar to ankylosing spondylitis[27]and no relationship[23].

Systemic sclerosis

It has been proven that systemic sclerosis causes microvascular damage, which may cause neuropsychiatric symptoms in the form of mood disorders, anxiety and cognitive disorders [28]. The prevalence of major depressive disorders is estimated from 17% to 69% [29]. Compared to rheumatoid arthritis patients, people with systemic sclerosis experience less severe body pain and disability, but tend to report more symptoms of depression [30]. Interestingly, people suffering from this rheumatic disease showed significantly more severe symptoms of depression and anxiety in the study than patients with melanoma [31]. A study by Yilmaz et al. showed significantly lower results in neuropsychiatric tests assessing cognitive functions than control groups, however, according to the authors, problems with attention and memory may also be influenced by chronic drug use and the duration of the disease [32]. There have also been reports of psychotic symptoms in the course of scleroderma, such as paranoid delusions, perceptual disturbances, disorientation [32]. On the other hand, a study conducted on 30 patients with scleroderma showed significantly increased symptoms of anxiety, feeling of guilt, symptoms of depression[33].

Fibromyalgia

Fibromyalgia is characterized by extensive pain accompanied by fatigue, memory and sleep disturbances. Patients suffering from this disease are more likely to suffer from depression, anxiety disorders, obsessive-compulsive disorder or post-traumatic stress disorder [34]. The meta-analysis by Alciati et al. showed the prevalence of severe depressive episodes up to 70%-86% [35]. On the other hand, people with a history of bipolar disorder and fibromyalgia have a high percentage of manic or hypomanic symptoms [35]. In the study by Cart et al. the proportion of patients with mania symptoms was 59%, which was more than twice as high as in the control group [36]and this was also confirmed in another study[37]. The risk of suicide in people suffering from fibromyalgia is even ten times higher, which may be related to the high prevalence of bipolar disorder in this group of patients [35,38]. In terms of sleep disorders, such as difficulty falling asleep, night awakenings or sleep not providing sufficient rest, it has been estimated that it may affect over 90% of patients. Importantly, non-regenerative sleep is classified as a highly disruptive symptom, along with pain, morning stiffness and fatigue.[39].

Ankylosing spondylitis

Another rheumatic disease in which symptoms of depression, anxiety disorders and sleep disturbances are common is ankylosing spondylitis. It should be emphasized that, apart from the above-mentioned symptoms, there are few studies on other disorders in the literature. In one study, disease activity, functional performance, and the incidence of pain and fatigue were positively correlated with symptoms of somatization, sleep disturbance, phobic anxiety, depression, psychoticism, and paranoid thoughts [40].

Rheumatic fever

Studies have been carried out to determine the prevalence of symptoms and mental disorders among people with rheumatic fever, especially in terms of obsessive-compulsive disorder. Already in an article published in 2000, it was shown in this group of people, where people with Sydenham's chorea presented more frequent severe depressive disorders, tics and hyperactivity disorder. Moreover, the symptoms of ADHD (attention deficit hyperactivity disorder), were associated with a higher risk of developing Sydenham's Chorea[41]. The fact of the higher incidence of obsessive-compulsive disorder was confirmed by studies conducted by Alvareng et al. in the group of people with heart disease or a history of rheumatic fever[41] and made by the same scientist on a sample of 678 people [42]. In contrast, another Brazilian study found that Generalized Anxiety Disorder was more common in first-degree relatives of people with febrile neutropenia[43].

Summary

In the course of all rheumatic diseases presented by us, there are symptoms and mental disorders. They are often mood, cognitive and sleep disturbances. Moreover, the occurrence of psychotic symptoms can also be observed. Probably some of them may be caused by the stress associated with the disease, but it seems that psychiatric symptoms have a multifactorial etiology and are also related to the mechanisms underlying rheumatic diseases and microvascular changes.

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