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A patient with Fibromyalgia and Chronic Recurrent Multifocal Osteomyelitis: the importance of psychosomatic assessment

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Abstract

Background. Many patients affected by FM present different comorbidities, but to date no case of FM in patients with CRMO has been reported in literature. Several studies show the importance of psychosomatic assessment in FM, but only one reported the presence of allostatic overload.

Case presentation. In April 2022, a 21-year-old female patient, a third-year medical student, came to our clinic to be assessed and treated for FM. She presents with a diagnosis of CRMO made in 2014 and a diagnosis of FM made in 2019.

Results. At the psychiatric evaluation she presented symptoms of anxiety, depression, insomnia and reported widespread pain with the presence of almost daily headaches. From the psychosomatic point of view using DCPR-revised she presented diagnostic criteria for allostatic overload, related to study and periodic flare-ups of painful symptoms due to CRMO, persistent somatization, with musculoskeletal and gastroenterological symptoms, demoralization and type A behaviour.

Conclusion. This case shows how useful a psychosomatic assessment of the patient can be for offering insights into what stressors at the origin of allostatic overload may be present in different FM patients.
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Keywords: *Fibromyalgia, Chronic recurrent multifocal osteomyelitis, Diagnostic Criteria for Psychosomatic Research, Allostatic overload, Psychosomatic*

Introduction

Fibromyalgia (FM) is a chronic syndrome characterized by widespread musculoskeletal pain and many psychological symptoms, including disrupted or non-restorative sleep, fatigue, stiffness, mood disorders, cognitive impairment and significative low mental well-being (1,2). With regard to the diagnostic criteria for FM, the ACR criteria were revised in 2016 and the AAPT proposed criteria for the diagnosis of this syndrome in 2019. Both criteria allow the diagnosis of fibromyalgia even in the presence of other rheumatological or chronic pain conditions (3,4). It has been shown that FM can coexist with several comorbidities, including several rheumatological diseases (5,6), usually presenting after the first diagnosis of these diseases, complicating their course, but to date no case of FM in patients with chronic recurrent multifocal osteomyelitis (CRMO) has been reported in the literature. CRMO is an inflammatory bone disease that primarily affects children. What distinguishes this disease is the presence of recurrent episodes of sterile osteomyelitis. It presents clinically with the insidious onset of bone pain, with or without fever, and laboratory tests indicate the presence of non-specific markers of inflammation (7). Several studies have reported on the importance of a psychosomatic assessment in patients with FM (8,9), but to our knowledge, only one study to date has evaluated patients with FM psychosomatically using the semi-structured interview of Diagnostic Criteria for Psychosomatic Research in their revised version (DCPR-revised), highlighting the presence of different psychosomatic syndromes, in particular allostatic overload (10).

Case presentation

In April 2022, a female patient came to our clinic to be assessed and treated for FM. She is a third-year medical student who moved from her home town and lives in university residence. The patient presents with a diagnosis of CRMO made in 2014, for which she has been followed since then at a children's hospital, with multiple treatments, with residual painful symptoms located in different body regions, particularly at the level of the spine and limb joints, with periodic phases of pain flare-up. In 2019, a diagnosis of fibromyalgia was established following the appearance of chronic widespread pain, insomnia and anxious and depressive symptoms, according to the revised ACR criteria proposed in 2016 (3). The patient has physiotherapy sessions two/three times a week, and manages to maintain, at the time of the visit, a fair degree of social and work functioning, albeit with a deterioration compared to the past.

To assess our patient we carried out a psychiatric evaluation and we used the semi-structured interview of the DCPR-revised (SSI-DCPR) (11). DCPR are diagnostic criteria for psychosomatic research and clinical investigation that provide a comprehensive and exhaustive framework for psychosomatic syndromes. The criteria were first proposed in 1995 by a group of international researchers (12). An

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updated version of DCPR was published in 2017 (13), the criteria can be subdivided into 4 domains (Stress, Personality, Illness behaviour, Psychological manifestations), and include 14 psychosomatic syndromes (Allostatic overload, Type A behaviour, Alexithymia, Hypochondriasis, Disease phobia, Thanatophobia, Health anxiety, Persistent somatization, Conversion symptoms, Anniversary reaction, Illness denial, Demoralization, Irritable mood, Secondary somatic symptoms).

At the psychiatric evaluation the patient presented symptoms of anxiety, depression, insomnia and reported widespread pain with the presence of almost daily headaches. However, it was not possible to identify valid clinical criteria for the diagnosis of a psychiatric disorder as stated in DSM 5. Therefore, in agreement with the patient, we decided to carry out the semi-structured interview for the DCPR, in their revised version (11). The patient presented diagnostic criteria for four psychosomatic syndromes, each belonging to a different domain. In particular, we identified the presence of allostatic overload, due to study-related stress and the presence of periodic flare-ups of painful symptoms due to CRMO, persistent somatization, with symptoms localised in particular to the musculoskeletal and gastroentrological levels, demoralization, and type A behaviour.

Discussion

To our knowledge this is the first case described in literature of coexistence between CRMO and FM. According to the literature (10), our patient presented the criteria for allostatic overload and persistent somatization. In addition, she also presented criteria useful for the diagnosis of type A behaviour and demoralization, as reported in a minority of FM patients.

A recent systematic review (14) has defined the phenomenon of allostatic load/overload and considered the possible factors related to allostatic overload and what the health effects of the latter are. To define allostatic load, one must take into account the cumulative effect of experiences in daily life, which are prolonged in time, and extraordinary events, which are more complex to deal with, as well as the physiological consequences of the resulting health-damaging behaviour, such as insufficient sleep and circadian disturbances, lack of exercise, smoking, alcohol consumption and unhealthy diet. Allostatic overload occurs when environmental challenges exceed an individual's ability to cope with them, as a transition to an extreme state in which stress-response systems are repeatedly activated and factors that should restore balance are inadequate. Several situations can lead to allostatic load/overload, such as exposure to frequent stressors that can lead to a state of chronic stress and repeated physiological arousal, lack of adaptation to repeated stressors, inability to switch off the stress response after a stressor has ceased, and the allostatic response not being sufficient to handle the stressor.

The clinical criteria for the diagnosis of allostatic overload include the presence of a current, identifiable source of stress such as recent life events and/or chronic stress, judged to limit or exceed the individual's coping abilities. This stressor must also be associated with one or more characteristics that must occur within six months of the onset of the stressor. These characteristics include symptoms (insomnia, lack of energy, dizziness, anxiety, irritability, sadness and demoralization), a significant impairment in social or work functioning, and the feeling of being overwhelmed by the environmental demands that arise in daily life (13).

Many patients with FM present significant stressors (15) and virtually all of them present at least some of the above characteristics.

Conclusions

This case demonstrates how useful the use of the revised DCPR can be for a better psychosomatic framing of the patient, and in particular offers insights into which stressors at the origin of allostatic overload may be present in different FM patients. In the case presented, the presence of CRMO may have contributed to the clinical manifestation, with its periodic flare-ups, acting as an endogenous stressor. Furthermore, it is important to emphasise that the psychosomatic assessment revealed the patient's personality characteristics, such as the presence of type A behaviour and persistent somatization, which together may contribute to the clinical picture.

Further studies with a large sample will be useful to better define whether an underlying chronic pain condition may be a stressor leading to allostatic overload and what the personality of patients who subsequently develop a psychosomatic syndrome in response to this stressor may be.

Ethical statement

Acknowledgments: We thank the patient for reviewing and approving the article.

Conflict of interest

None.

Ethical standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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Author contributions

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