QUALITY OF LIFE, ASTHENIA AND PSYCHOEMOTIONAL DISTURBANCES IN CHRONIC BRUCELLOSIS: A SYSTEMATIC REVIEW

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Abstract. Background: Chronic brucellosis is associated not only with persistent or recurrent clinical manifestations but also with long-term functional limitations, fatigue and psychological distress. These consequences may substantially reduce patients' health-related quality of life (HRQoL), even after completion of antimicrobial treatment. The reviewed evidence indicates that brucellosis may negatively affect physical functioning, vitality, social participation and emotional well-being. Fatigue, musculoskeletal pain and sleep disturbances are important contributors to reduced daily activity. Depression and anxiety may accompany prolonged symptoms and functional impairment. Available studies also demonstrate that HRQoL can improve following effective treatment; however, recovery of physical and psychological functioning may require additional follow-up and rehabilitation.

Keywords: chronic brucellosis, quality of life, asthenia, fatigue, depression, anxiety, psychoemotional disturbances, SF-36.

Introduction. Brucellosis is a zoonotic infection with a wide range of clinical manifestations and the potential to affect several organ systems. Its clinical course may be prolonged, recurrent or complicated by focal lesions, particularly

involving the musculoskeletal and nervous systems. In some patients, symptoms such as fatigue, pain, sleep disturbances and general weakness persist and interfere with everyday activities [1]. The consequences of brucellosis cannot be evaluated solely by fever resolution, normalization of laboratory parameters or completion of antimicrobial therapy. Persistent symptoms may affect occupational performance, family responsibilities, social relationships and psychological well-being [2].

Quality of life in brucellosis is influenced by the duration of symptoms, the presence of focal complications, pain intensity and the degree of functional limitation. Osteoarticular involvement, including sacroiliitis, spondylitis and arthritis, may cause persistent pain and restricted mobility. These manifestations can reduce physical activity and limit the ability to perform professional and household tasks [1].

An important clinical study by Şahan et al. Evaluated 57 adults with brucellosis using the SF-36 questionnaire before and after treatment. The investigators reported statistically significant improvements in all eight SF-36 domains following therapy, including physical functioning, bodily pain, vitality, social functioning and mental health [3]. These findings demonstrate that infection control can contribute to the restoration of quality of life.

More recent evidence from Afghanistan also confirms the negative impact of brucellosis on patients' perceived health status. In a case-control study involving 75 patients and 80 controls, Shayan et al. Identified lower scores in several SF-36 domains among patients, with differences observed particularly in physical functioning, general health and vitality [4].

Asthenia and Persistent Fatigue. Asthenia is one of the clinically important complaints in patients with prolonged brucellosis. It may manifest as persistent physical weakness, reduced endurance, rapid fatigability, decreased motivation

and difficulty maintaining usual daily activity. Fatigue may coexist with musculoskeletal pain, sleep disturbances, reduced appetite and emotional distress.

The mechanisms underlying asthenia are likely multifactorial. They may include prolonged inflammatory responses, systemic effects of infection, pain-related sleep disruption, reduced physical activity and psychological factors. In patients with osteoarticular complications, limitation of movement and gradual physical deconditioning may further aggravate fatigue [1,2].

It is important to distinguish persistent fatigue from microbiologically or clinically active infection. Fatigue alone does not establish relapse or prove continued bacterial activity. Assessment should include the patient's clinical history, physical examination, relevant laboratory findings and investigation for focal complications when indicated.

Psychoemotional Disturbances. Prolonged illness may negatively affect emotional well-being. Uncertainty about recovery, recurrent pain, reduced working capacity and financial difficulties can contribute to anxiety, depressive symptoms, irritability and social withdrawal. These problems may become particularly relevant when symptoms persist despite completion of antimicrobial therapy.. A recent study by Bozkurt et al. Investigated depression and anxiety in 110 patients with brucellosis whose symptoms had lasted at least eight weeks and 80 healthy controls. Clinically significant depressive symptoms were identified in 41% of patients compared with 11% of controls, while anxiety symptoms were reported in 42% and 9%, respectively. The authors also identified associations between platelet-to-lymphocyte ratio and the severity of depressive and anxiety symptoms [5].

Neurobrucellosis represents a separate clinical concern because neurological involvement may produce cognitive, behavioral and other neuropsychiatric manifestations. A systematic review by Tajerian et al. Described the diverse

neurological presentations and complications associated with neurobrucellosis, emphasizing the need for timely diagnosis and appropriate treatment [6].

Assessment and Clinical Implications. A comprehensive assessment should combine clinical examination with standardized patient-reported instruments. The SF-36 questionnaire is useful for evaluating physical functioning, bodily pain, vitality, social functioning and mental health. The Hospital Anxiety and Depression Scale (HADS), Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI) may help identify patients who require further psychological or psychiatric evaluation. Fatigue can be assessed using validated instruments such as the Fatigue Severity Scale (FSS).

Conclusion. Chronic and prolonged brucellosis may have consequences extending beyond the infectious process itself. Asthenia, persistent fatigue, musculoskeletal pain and psychoemotional disturbances can substantially impair quality of life and social functioning. Available evidence supports the inclusion of standardized quality-of-life assessment and psychological screening in the follow-up of patients with prolonged symptoms.

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