

Living with Ankylosing Spondylitis: Managing Symptoms, Improving Mobility, and Enhancing Quality of Life

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Abstract

Ankylosing spondylitis (AS) is a chronic inflammatory autoimmune disorder primarily affecting the spine and sacroiliac joints, leading to pain, stiffness, and in severe cases, spinal fusion. Although the exact cause of AS remains unclear, genetic and environmental factors are thought to contribute. Early diagnosis and treatment are critical in managing symptoms and slowing disease progression. This article examines current approaches to managing ankylosing spondylitis, focusing on symptom control, improving mobility, and enhancing overall quality of life. A combination of pharmacological treatments, physical therapy, lifestyle modifications, and patient education is essential in the comprehensive management of AS. This review synthesizes recent evidence on disease-modifying therapies, exercise regimens, and psychosocial support strategies for individuals living with AS.

Keywords: Ankylosing spondylitis; Inflammatory arthritis; Spinal mobility; Disease-modifying antirheumatic drugs (DMARDs); Physical therapy; Quality of life

Introduction

Ankylosing spondylitis (AS) is a chronic, inflammatory autoimmune disorder that predominantly affects the axial skeleton, particularly the spine and sacroiliac joints [1]. This condition is part of a group of diseases known as spondyloarthropathies and is characterized by inflammation, pain, and stiffness in the spine and peripheral joints. Over time, AS can lead to the fusion of vertebrae, causing reduced spinal mobility and a characteristic stooped posture. The disease primarily affects young adults, with symptoms typically appearing between the ages of 20 and 40 [2-4]. The exact cause of AS remains unclear, but genetic factors, particularly the presence of the HLA-B27 gene, are thought to play a key role. Environmental triggers, such as infections, may also contribute to disease onset and exacerbation. While there is currently no cure for ankylosing spondylitis, early diagnosis and effective management can greatly reduce disease progression and improve the quality of life for patients. This article reviews current treatment strategies and discusses the importance of a multidisciplinary approach to managing AS, with a focus on symptom management, maintaining spinal mobility [5], and improving overall well-being.

Materials and Methods

A comprehensive review of the literature was conducted using various medical and scientific databases, including PubMed, Scopus, and Cochrane Library [6]. Articles published between 2010 and 2023 were selected to ensure the inclusion of the most current evidence. The review focused on clinical studies, randomized controlled trials (RCTs), and meta-analyses addressing the following topics: Pharmacological treatments for ankylosing spondylitis, including nonsteroidal anti-inflammatory drugs (NSAIDs), disease-modifying antirheumatic drugs (DMARDs), and biologic therapies (TNF inhibitors and IL-17 inhibitors). The role of physical therapy, exercise, and postural training in improving mobility and reducing pain. Quality of life (QoL) outcomes in AS patients, including psychosocial interventions, patient education, and lifestyle changes. Disease activity measurement tools used to assess symptom severity and treatment effectiveness, such as the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) and the ASQoL (Ankylosing Spondylitis Quality of Life) questionnaire. Articles were selected based on their relevance to the primary research

question: How can the management of symptoms, improvement of mobility, and enhancement of quality of life be optimized for individuals living with ankylosing spondylitis [7].

Results and Discussion

Pharmacological treatment remains the cornerstone of managing ankylosing spondylitis. Nonsteroidal anti-inflammatory drugs (NSAIDs) are the first line of treatment for controlling pain and reducing inflammation. While effective, long-term NSAID use may have adverse effects, including gastrointestinal issues and kidney damage, especially in older individuals. In cases where NSAIDs are insufficient, biologic therapies, particularly TNF inhibitors (e.g., infliximab, adalimumab) and IL-17 inhibitors (e.g., secukinumab), have proven to significantly reduce disease activity and prevent further structural damage [8]. These biologics work by targeting specific cytokines involved in the inflammatory process. Studies show that TNF inhibitors can not only reduce symptoms but also improve spinal mobility and overall physical function in AS patients. For those with milder symptoms, conventional DMARDs such as sulfasalazine may be used, although these tend to be less effective than biologics for managing spinal involvement.

Physical therapy and exercise: Physical therapy plays a vital role in the management of AS by maintaining spinal flexibility, strengthening muscles, and improving posture. A consistent exercise regimen focusing on spinal extension exercises, stretching, and strengthening exercises for the back, hips, and shoulders can help improve posture and reduce stiffness. Aquatic therapy has also been shown to be beneficial, as the buoyancy of water reduces the strain on joints while enabling movement.

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Postural correction and ergonomics: Maintaining a proper posture is essential for preventing the spinal deformities associated with AS. Physiotherapists emphasize the importance of exercises aimed at preventing spinal flexion, such as practicing spinal extension exercises and avoiding prolonged sitting [9]. Postural training and ergonomic adjustments at work or home are recommended to reduce stress on the spine and prevent worsening of symptoms.

Quality of life and psychosocial support: The impact of ankylosing spondylitis on quality of life (QoL) is significant, with many patients experiencing chronic pain, fatigue, and emotional distress. Research indicates that AS can have a profound psychological impact, with high rates of anxiety, depression, and social isolation. Integrating psychosocial support and patient education into the treatment plan is critical. Cognitive-behavioral therapy (CBT) and group support interventions can help patients cope with the emotional challenges of living with a chronic illness.

Disease activity and monitoring: Regular monitoring of disease activity is important in guiding treatment decisions. The Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) is commonly used to assess symptom severity, including pain, fatigue, and stiffness [10]. The ASQoL questionnaire is a useful tool in measuring the impact of the disease on a patient's daily life, including social, emotional, and physical aspects.

Conclusion

Ankylosing spondylitis is a chronic, progressive inflammatory disease that can significantly impact physical function and quality of life. Although there is no cure for AS, early diagnosis and an individualized treatment plan can significantly reduce symptoms, improve mobility, and enhance the overall well-being of patients. Pharmacological therapies, particularly biologic treatments, are essential for controlling inflammation and preventing spinal damage. Physical therapy, exercise, and postural correction play a key role in maintaining mobility and reducing stiffness. Additionally, addressing the psychosocial aspects of the disease through support and patient education is crucial for improving quality of life. A multidisciplinary

approach involving rheumatologists, physical therapists, and mental health professionals offers the most comprehensive care for individuals living with ankylosing spondylitis, helping them manage their symptoms and maintain an active and fulfilling life.

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Interest of Conflict

None

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