Rheumatoid Arthritis in Nigeria: Clinical Presentation and Management

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ABSTRACT

Rheumatoid arthritis (RA) is a chronic autoimmune disorder that causes joint inflammation, pain, stiffness, and potential joint destruction. While globally recognized, the epidemiology, clinical presentation, and management of RA in Nigeria face unique challenges. These challenges include limited diagnostic capacity, inadequate access to specialized care, and cultural barriers to timely medical intervention. This review analyzes the clinical presentation and management of RA in Nigeria, identifying common symptoms, diagnostic hurdles, and available treatment options. It highlights the underutilization of Disease-Modifying Antirheumatic Drugs (DMARDs) and biologic agents, the role of traditional medicine, and the significant barriers to effective care. Moreover, it underscores the need for improved healthcare infrastructure, public awareness campaigns, and specialized training for healthcare providers to improve RA outcomes. The review also emphasizes the importance of context-specific clinical guidelines and research that address the unique challenges of managing RA in Nigeria. By fostering collaboration between modern and traditional therapies and investing in healthcare infrastructure, the management of RA can be significantly improved, resulting in better patient outcomes and a reduced disease burden.
Keywords: Rheumatoid arthritis, Nigeria, autoimmune disorders, telemedicine, epidemiology.

INTRODUCTION

Rheumatoid arthritis (RA) is a chronic, systemic autoimmune disease characterized by persistent synovial inflammation, joint pain, swelling, and progressive joint destruction, which can lead to severe disability if left untreated [1]. Unlike osteoarthritis, which results from wear and tear, RA is an autoimmune condition where the body's immune system mistakenly attacks its tissues, particularly the synovium, and the lining of the joints [2]. The disease often presents with symmetrical joint involvement, morning stiffness lasting more than an hour, and systemic symptoms such as fatigue, low-grade fever, and weight loss [3]. Although RA primarily targets the joints, it can also affect other organs, including the heart, lungs, eyes, and blood vessels, thus categorizing it as a systemic disease [4].

Globally, RA affects approximately 0.5% to 1% of the population, with women being disproportionately affected, typically two to three times more than men. The peak onset occurs between the ages of 30 and 60 years [5]. In high-income countries, advances in diagnostics, therapeutic agents (especially disease-modifying antirheumatic drugs, DMARDs, and biologics), and supportive care have significantly improved outcomes for RA patients. However, in many low- and middle-income countries (LMICs), including Nigeria, RA remains a significant public health challenge due to delayed diagnosis, limited access to specialized care, and financial barriers to treatment [6]. In the Nigerian context, RA is an increasingly recognized but often underreported condition. Epidemiological studies in sub-Saharan Africa have indicated a growing prevalence of RA, likely due to improved awareness and diagnostic capabilities [7]. However, the true burden of RA in Nigeria remains obscured by a lack of comprehensive national data and underrepresentation in health policy discussions. Cultural beliefs, stigma associated with chronic illness, and reliance on traditional medicine further complicate early diagnosis and effective treatment [8]. Nigeria's healthcare system, which is characterized by a mix of public and private service providers, faces substantial challenges in managing chronic non-communicable diseases (NCDs) such as RA. Many healthcare facilities lack specialized rheumatology services, and where available, they are concentrated in tertiary institutions, mostly located in urban centers [9]. The distribution of rheumatologists is grossly inadequate for the country's large population, which exceeds 200 million. This shortage results in delayed referrals, misdiagnosis, and poor disease management, particularly in rural and underserved communities. Moreover, awareness of RA among the general population and

even some healthcare providers remains low. Many patients present to hospitals at advanced stages of the disease, having already suffered irreversible joint damage [10]. There is also a tendency to attribute symptoms of RA to spiritual or non-medical causes, leading to delays in seeking appropriate medical care. These delays not only worsen prognosis but also place a significant economic burden on individuals and families, given the chronic nature of the disease and the cost of long-term treatment.

Despite increasing recognition of autoimmune diseases in Nigeria, rheumatoid arthritis remains inadequately addressed within the healthcare system. Many patients experience prolonged periods of undiagnosed and untreated disease, leading to significant morbidity and diminished quality of life [7]. The limited availability of rheumatologists, inadequate diagnostic infrastructure, high cost of effective medications, and insufficient public awareness contribute to suboptimal outcomes. Furthermore, the lack of local clinical guidelines and population-specific research impedes the development of contextually appropriate management strategies [11].

Another critical concern is the limited understanding of the clinical presentation and progression of RA among Nigerian patients. Most of the existing literature and clinical guidelines are based on studies conducted in Western populations, which may not fully capture the unique clinical patterns, genetic predispositions, and environmental factors affecting RA in African populations [12]. As such, there is a pressing need to contextualize RA research and treatment approaches within the Nigerian sociocultural and healthcare framework. This review examines the clinical presentation of rheumatoid arthritis in the Nigerian population, evaluates current treatment modalities, identifies barriers to early diagnosis and effective management, explores the role of traditional medicine and cultural perceptions in shaping patient behavior and treatment outcomes, and recommends evidence-based strategies for improving RA care in Nigeria. The research questions guide the review, including common clinical features and progression patterns of RA among Nigerian patients, available treatment options, major challenges faced by healthcare providers and patients in diagnosing and managing RA, and how cultural beliefs and practices influence patients' attitudes and treatment-seeking behavior. The study holds significant value for stakeholders in the Nigerian healthcare system, including clinicians, researchers, policymakers, and patient advocacy groups. It provides a critical assessment of existing gaps and challenges, serves as a foundation for future research and policy development, and offers insights into region-specific disease patterns and management strategies. Policymakers need to invest in diagnostic infrastructure, workforce development, and include RA care in health insurance schemes. The study aims to raise public awareness and foster patient advocacy by demystifying the disease and promoting early diagnosis and treatment. The review contributes to the global conversation on health equity by addressing a neglected area of chronic disease care in a low-resource setting. Improving outcomes for RA patients will enhance individual quality of life, reduce long-term healthcare costs, and reduce productivity losses associated with disability.

Epidemiology of Rheumatoid Arthritis in Nigeria

Rheumatoid arthritis (RA) is an autoimmune disorder with a relatively low but significant prevalence in Nigeria, estimated between 0.1% and 0.5%. The incidence appears higher in urban areas, largely due to improved access to healthcare facilities and diagnostic services [13]. However, this may not reflect the true national burden, as the lack of comprehensive surveillance systems and the common misclassification of RA symptoms as general musculoskeletal disorders contribute to underreporting. This diagnostic gap is especially prominent in rural regions, where healthcare infrastructure is limited, and awareness among healthcare providers and patients remains low. RA in Nigeria predominantly affects women, particularly those within the 30–50-year age group, aligning with global trends that show a gender and age-related predisposition [14]. The disproportionate impact on women in their productive years further amplifies the socioeconomic consequences of the disease, affecting not only individual livelihoods but also broader family and community welfare. Addressing the epidemiological challenges surrounding RA in Nigeria requires enhanced diagnostic capacity, public health education, and a national registry to better capture and manage disease data. Such efforts would provide a clearer understanding of RA's burden and support more targeted interventions to improve outcomes for affected populations.

Clinical Features and Diagnostic Challenges of Rheumatoid Arthritis in Nigeria

Rheumatoid arthritis (RA) in Nigeria commonly presents with joint pain and swelling, particularly affecting the small joints of the hands and feet. Morning stiffness lasting more than an hour, which improves with activity, is frequently observed, alongside generalized fatigue and malaise [2]. Symmetrical joint involvement remains a hallmark feature among Nigerian RA patients. Beyond joint symptoms, extra-articular manifestations such as rheumatoid nodules, vasculitis, and lung involvement are occasionally reported. Advanced cases may also present with ocular complications like scleritis, while anemia of chronic disease is a frequent finding in individuals with longstanding RA. Diagnosing RA in Nigeria presents significant challenges [15]. There is limited access to serological testing, including rheumatoid factor (RF) and anti-cyclic citrullinated peptide (anti-CCP) antibodies, which hinders early and accurate diagnosis. As a result, clinicians often rely on clinical evaluation guided by the American College of Rheumatology (ACR) criteria. Additionally, delayed presentation is common, often due to cultural beliefs and a preference for traditional healers over formal healthcare services. These factors collectively contribute to late-stage diagnosis and suboptimal management of RA in the Nigerian context. Addressing these

issues requires improved diagnostic infrastructure, public education, and integration of traditional beliefs into patient-centered care strategies.

Integrated Approaches to Rheumatoid Arthritis Management

The management of rheumatoid arthritis (RA) in resource-limited settings involves a combination of pharmacologic, non-pharmacologic, and traditional therapies. Pharmacologic treatment typically begins with Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) for symptom relief and corticosteroids to manage acute flares. Disease-Modifying Anti-Rheumatic Drugs (DMARDs) such as methotrexate and sulfasalazine are effective but often underutilized due to their cost and limited availability [16]. Biologic agents, although highly effective, are rarely used because of their prohibitive costs and the lack of insurance coverage. Complementing these are non-pharmacologic strategies, including physiotherapy and occupational therapy, which enhance joint mobility and function. Nutritional support is vital, given the high prevalence of malnutrition and anemia among RA patients. Additionally, patient education and counseling improve treatment adherence and long-term outcomes. Traditional and herbal therapies also play a significant role, particularly in rural communities where they are often the first line of treatment. While these practices can delay formal medical intervention, they hold strong cultural relevance [17]. Therefore, there is an urgent need to evaluate their safety and explore how they can be integrated into evidence-based treatment frameworks. A comprehensive, culturally sensitive approach that combines modern and traditional methods offers the best potential for improving RA care in such contexts.

Barriers to Effective Management

The effective management of rheumatoid arthritis (RA) in East Africa faces numerous challenges that hinder timely diagnosis and adequate treatment. A significant barrier is the limited availability of rheumatology specialists, who are often concentrated in urban centers, leaving rural populations with little to no access to expert care. This specialist shortage contributes to delayed diagnoses and improper management. Compounding this issue is the high cost of care, which includes out-of-pocket expenses for diagnostic tests and medications, making treatment unaffordable for many. In addition, cultural beliefs and stigma surrounding RA contribute to misconceptions about its origins, often attributing the condition to spiritual or supernatural causes [18]. These beliefs discourage individuals from seeking professional medical help, opting instead for traditional remedies that may be ineffective or harmful. Furthermore, inadequate health infrastructure in rural and underserved areas exacerbates the problem by limiting the availability of essential diagnostic and treatment services. The absence of properly equipped health facilities, trained personnel, and consistent drug supplies impedes comprehensive RA care. Together, these barriers underscore the urgent need for systemic reforms, including increased investment in healthcare infrastructure, specialist training, public health education, and financial support mechanisms to improve RA outcomes across the region.

Current Research, Innovations, and Future Directions in Rheumatoid Arthritis Care

Recent advancements in rheumatoid arthritis (RA) care have highlighted the growing interest in biomarker research and genetic predisposition studies, which are paving the way for more personalized treatment approaches [19]. Pilot studies have been launched to explore the use of telemedicine as a means of bridging the care gap between urban and rural areas, ensuring that patients in underserved regions have access to essential services. Furthermore, there is a concerted effort to enhance the skills of general practitioners through continuing medical education, allowing them to provide better rheumatologic care and improve patient outcomes. Moving forward, several recommendations are crucial to further enhancing RA management. Establishing a National Rheumatology Registry could help monitor disease prevalence and treatment outcomes across the population. Additionally, improving access to diagnostics and Disease-Modifying Antirheumatic Drugs (DMARDs) is vital, and this could be achieved through government subsidies and partnerships with pharmaceutical companies. Enhancing healthcare worker training is also imperative, particularly in recognizing early symptoms of RA and managing the disease effectively. Community awareness programs aimed at educating the public on early signs and available treatment options would help in early diagnosis and better management. Lastly, supporting local research to develop context-specific treatment guidelines tailored to regional needs is essential in advancing RA care and improving patient quality of life [20].

CONCLUSION

Rheumatoid arthritis (RA) remains a significant public health challenge in Nigeria, with increasing recognition of its burden despite limited awareness and diagnostic infrastructure. The disease's clinical presentation is often complicated by delays in diagnosis, partly due to cultural misconceptions and limited access to specialized care, particularly in rural areas. Current management strategies, although effective, are constrained by high medication costs, a shortage of rheumatologists, and a lack of context-specific clinical guidelines. Traditional therapies, widely used in rural regions, also present challenges in integrating with evidence-based treatment approaches. To improve outcomes, there is a pressing need for a multi-faceted approach that includes better diagnostic tools, more accessible treatment options, and increased public awareness. The establishment of a national rheumatology registry and the expansion of telemedicine could significantly enhance disease surveillance and healthcare access, particularly in

underserved areas. Additionally, increasing the availability of Disease-Modifying Antirheumatic Drugs (DMARDs) and biologic therapies, coupled with training healthcare workers in early RA recognition and management, will help reduce morbidity and improve quality of life. By addressing these barriers and fostering community-based education and research, Nigeria can create a more effective and culturally sensitive framework for managing RA, ultimately improving patient outcomes and reducing the socioeconomic burden of the disease.

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