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RETROSPECTIVE EVALUATION OF CLINICAL CHARACTERISTICS IN PATIENTS WITH REACTIVE ARTHRITIS

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Reactive arthritis (ReA) is an inflammatory joint disease that develops following genitourinary or gastrointestinal infections and is characterized by a heterogeneous clinical presentation. The aim of this study was to perform a retrospective evaluation of clinical features, laboratory findings, and disease course in patients with reactive arthritis. A total of 80 patients diagnosed with ReA were included in the study. Clinical manifestations, laboratory parameters, and disease patterns were analyzed. The most common triggers were urogenital infections (45%) and enteric infections (40%). Peripheral arthritis was observed in 92.5% of cases, with predominant involvement of the lower extremities. Extra-articular manifestations, including conjunctivitis (28.7%), urethritis (35%), and skin lesions (18.7%), were frequently identified. Elevated inflammatory markers (ESR, CRP) were present in the majority of patients. The findings confirm the polymorphic nature of reactive arthritis and highlight the importance of early recognition and multidisciplinary management.

Keywords
reactive arthritis; spondyloarthritis; infection; clinical features; inflammation; extra-articular manifestations; HLA-B27

Reactive arthritis (ReA) is a subtype of seronegative spondyloarthritis characterized by sterile joint inflammation that occurs after an extra-articular infection. The condition is commonly associated with pathogens such as *Chlamydia trachomatis*, *Salmonella*, *Shigella*, and *Yersinia*. Despite advances in understanding its pathogenesis, ReA remains a diagnostic challenge due to its variable clinical presentation and overlapping features with other rheumatic diseases.

The disease often affects young adults and can present with a classical triad of arthritis, urethritis, and conjunctivitis, although this triad is not always fully expressed. Genetic predisposition, particularly the presence of HLA-B27, plays a

significant role in disease susceptibility and severity. The aim of this study was to retrospectively assess the clinical spectrum, laboratory characteristics, and disease patterns in patients with reactive arthritis in order to improve early diagnosis and optimize clinical management.

Materials and Methods. A retrospective study was conducted involving 80 patients diagnosed with reactive arthritis based on established clinical criteria. Patients were treated and observed in a tertiary care clinical setting between 2020 and 2025. The inclusion criteria comprised a confirmed diagnosis of reactive arthritis, age ≥18 years, and a documented history of preceding infection. The exclusion criteria included the presence of other rheumatic or autoimmune diseases, as well as septic arthritis. Patient records were analyzed to obtain demographic data, information on the type of preceding infection, patterns of joint involvement, and the presence of extra-articular manifestations; joint involvement was classified as monoarthritis, oligoarthritis, or polyarthritis. Laboratory parameters included erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), HLA-B27 status, and available microbiological findings. Statistical analysis was performed using standard descriptive methods, with continuous variables expressed as mean ± standard deviation and categorical variables presented as percentages.

Results and Discussion. The study included 80 patients (52 males and 28 females) with a mean age of 34.6 ± 8.2 years; the observed male predominance is consistent with previously reported epidemiological data. Analysis of triggering factors showed that urogenital infections were identified in 45% of cases, gastrointestinal infections in 40%, while in 15% of patients the etiology remained unknown, confirming the leading role of infectious agents in the development of reactive arthritis. Regarding articular manifestations, peripheral arthritis was observed in 92.5% of patients, with oligoarthritis in 65%, monoarthritis in 20%, and polyarthritis in 7.5% of cases; the lower limb joints, particularly the knees and ankles, were most frequently involved, and enthesitis was detected in 30% of patients. Extra-articular manifestations were also common, including urethritis in 35% of cases, conjunctivitis in 28.7%, and skin lesions such as keratoderma and balanitis in 18.7%, supporting the systemic nature of the disease. Laboratory findings revealed elevated erythrocyte sedimentation rate (ESR) in 78% and increased C-reactive protein (CRP) levels in 82% of patients, while HLA-B27 positivity was detected in 56% of cases. Elevated inflammatory markers were associated with higher disease activity, and the presence of HLA-B27 correlated with a more severe and prolonged disease course.

Conclusion. Reactive arthritis is a clinically heterogeneous and pathogenetically complex inflammatory disease, in which infectious triggers and immunogenetic predisposition, particularly HLA-B27 positivity, play a central role. The present retrospective analysis of 80 patients demonstrates a clear predominance of peripheral oligoarthritis with preferential involvement of the lower extremities, along with a high frequency of extra-articular manifestations, including urogenital, ocular, and cutaneous involvement, confirming the systemic nature of the disease. The high prevalence of elevated inflammatory markers (ESR and CRP) and their association with disease activity, as well as the correlation between HLA-B27 positivity and a more severe and prolonged disease course, underline the importance of integrated clinical and laboratory assessment. These findings emphasize that early identification of infectious triggers, timely recognition of characteristic clinical patterns, and comprehensive evaluation of immunological markers are critical for accurate diagnosis. Implementation of early, targeted, and multidisciplinary management strategies may significantly improve clinical outcomes, reduce the risk of chronicity, and prevent long-term functional impairment in patients with reactive arthritis**.**

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