

## **RELATIONSHIP BETWEEN RHEUMATOID FACTOR AND DISEASE ARTICULAR DAMAGE IN JUVENILE IDIOPATHIC ARTHRITIS PATIENTS**

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**Background:** Juvenile Idiopathic Arthritis (JIA) is the most common chronic rheumatic disease in children and represents a heterogeneous group of autoimmune disorders with complex immunological mechanisms. Rheumatoid factor (RF) is not diagnostic for JIA but is recognized as a prognostic marker, particularly in polyarticular disease, where RF positivity has been associated with more severe disease and progressive joint damage. However, the relationship between RF and articular damage in JIA, especially in early disease stages, remains unclear.

**Objective:** To determine the relationship between rheumatoid factor and disease articular damage in patients with Juvenile Idiopathic Arthritis.

**Method:** This study was an observational study with a cross-sectional design conducted using medical record data. Consecutive sampling was applied to include patients diagnosed with JIA for at least six months. RF status and radiographic findings were collected to evaluate disease articular damage, and statistical analysis was performed to assess the relationship between RF and articular damage in JIA patients.

**Result:** A total of 69 JIA patients were included in this study, of whom 62 (89.9%) were RF-negative and 7 (10.1%) were RF-positive. Nearly half of the patients showed no radiographic abnormalities (46.4%), while destructive changes were the most common abnormal finding (26.1%). RF-positive patients tended to present more frequently with erosive changes compared to RF-negative patients; however, statistical analysis showed no significant association between RF status and disease articular damage ( $p = 0.274$ ).

**Conclusion:** Rheumatoid factor was not significantly associated with disease articular damage in this study. However, the observed tendency toward more destructive changes in RF-positive patients suggests that RF may have prognostic relevance in JIA, particularly over longer disease duration.

**Keywords:** JIA, rheumatoid factor, disease articular damage, children