

The Association of IL-17 Serum Levels with Disease Severity and Onset of Symptoms in Rheumatoid Arthritis Patients

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Abstract : Background: Rheumatoid arthritis (RA) is one of the most common autoimmune diseases, often leading to joint damage and physical disability. This study aimed to investigate the relationship of serum levels of interleukin 17 and anti-CCP factor with disease severity in RA patients. Materials and Methods: Fifty-four patients with RA confirmed by clinical and laboratory criteria were recruited. A 5 ml venous blood sample was taken from every patient, its serum was separated. Based on clinical data and severity of symptoms, patients were classified into three groups of those with mild, moderate, and severe symptoms. Serum levels of IL-17 and anti-CCP in all samples were measured using ELISA. Results: Analysis of IL-17 serum levels in different groups showed that its amount was higher in the group with mild clinical symptoms than in other groups. Comparison of IL-17 serum levels between mild and moderate disease severity groups showed a statistically significant relationship. There was also a positive linear relationship between anti-CCP and serum IL-17 levels in different groups of the disease, and serum IL-17 levels were inversely related to the duration of exposure to the disease. Conclusion: Higher IL-17 serum levels in patients with mild symptom severity confirm that this highly specific marker is involved in the pathogenesis of RA and may be effective in initiating patients' clinical symptoms.

Keywords : IL-17, anti-CCP, rheumatoid arthritis, autoimmune

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