

Estimation of Serum Adenosine Deaminase as a biochemical marker in Rheumatoid Arthritis

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Introduction

Rheumatoid Arthritis(RA) a chronic disease with articular and extra-articular involvement has a multifactorial etiology. Adenosine Deaminase (ADA) is an enzyme involved in the metabolism of Purine bases. Methotrexate being successfully used as a DMARD acts through purine metabolism. It seemed justified to estimate ADA, a biomarker as a diagnostic, therapeutic and prognostic tool in RA.

Method

Two groups of cases were taken in this study - Group 1 of 40 patients with clinical diagnosis of RA and group 2 of volunteers with no known history of acute or chronic disease as control. ADA estimation was done in all cases.

Result

It was found that RA is most prevalent in 41 to 60yrs of age. 4 to 5 times more prevalent in women. ADA levels were almost twice in RA cases as compared to healthy individuals. Long term drug treatment by Methotrexate reduced ADA levels. Hence suggesting that ADA is an important biomarker of severity of inflammation and would help us evolve treatment strategies for better disease management.