

A limelight on Rheumatoid Arthritis: Auto immune disease

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ABSTRACT

Auto-immunity disease is a condition in which the immune system attacks its own healthy cells leading to the reaction with the self-antigen causing organ damage. Rheumatoid arthritis, being one of the most common auto-immune disorders, affects joints gravely. It has caused high rates of morbidity, globally and demands high financial cost to tackle the aggravating situation with progressive strategies and treatments. Genetic and environmental factors also play a key role in pathogenesis of the auto-immune diseases.

Keywords: Auto antibodies; Cytokines; Rheumatoid Factor

DESCRIPTIONS

Rheumatoid arthritis is an inflammatory and chronic auto-immune disorder which affects the joints in severe degrees initially leading to joint destruction and disability and eventually affecting the skin, eyes and vital internal organs like heart, lungs, kidneys etc. [1]. An auto-immune response is mediated by T and B lymphocytes which are responsible for the production of soluble molecules such as cytokines, nitric oxide, etc. and autoantibodies [2]. This disease usually occurs in the adults from the age of 35-60 years with remission (symptoms getting better or disappearing) and exacerbation. It can be seen in younger children (below 16 years of age) where rheumatoid factor is not found [3]. Early clinical manifestations include stiffness and swelling in one or more joint, fatigue, fever, prolonged duration of morning stiffness with arthralgia etc.

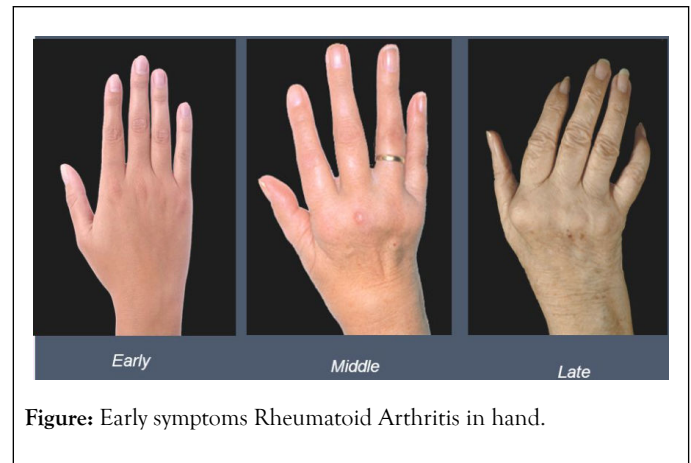


Figure: Early symptoms Rheumatoid Arthritis in hand.

The laboratory tests such as Erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) are used to diagnose the acute phase response and the severity of the disease. Proper treatment including combination of disease-modifying antirheumatic drugs (DMARDs) has been found effective against bone erosions and retarding the advancement of joint damage.

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