



RHEUMATOID ARTHRITIS(RA)



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Abstract

Rheumatoid arthritis (RA) is a chronic, progressive autoimmune disease of unknown cause. It is characterized by persistent inflammation that primarily affects the peripheral joints. It usually starts as an insidious symmetrical arthritis and has an unpredictable and variable course, although pain and disability can be minimized if the condition is recognized early and treated promptly and appropriately. Epidemiology and Economics

Keywords:

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Introduction

- Prevalence varies from 0.5% to 1.5% of the population.
- RA affects more women than men (ratio 3:1).
- The age of onset is between 30 and 55 years.
- RA results in progressive disability, with nearly half of all patients experiencing significant functional impairment within 10 years.
- RA shortens life expectancy by a number of years in both men and women.

Pathophysiology

- Pathogenesis involves multiple factors, including both genetic and environmental influences.
- Immune cells and soluble inflammatory mediators play a crucial role in the pathogenesis, although the relative contribution of individual components remains uncertain.
- Proliferation of cells in the synovial layer of the joint, together with infiltration by various cell populations, as orchestrated by cytokines, chemokines, growth factors, and hormones, produces a locally invasive pannus that is capable of invading and ultimately destroying cartilage, bone, and surrounding soft tissues.

Clinical Features

- RA presents as a symmetrical polyarthritis affecting the small joints of the hands and feet.
- The onset is most often insidious but can be episodic or acute.
- Inflamed joints become swollen, painful, and stiff. Synovial fluid may accumulate, causing an effusion. Joint pain is usually more prominent and more persistent than in osteoarthritis, occurring at rest, at night, and on activity. Prolonged early morning



stiffness is also a key diagnostic feature suggestive of inflammatory disease.

- In addition to causing peripheral symptoms, RA may also involve the cervical spine, causing pain in the neck and occipital headache.
- Pain may also occur as a result of temporomandibular joint disease.
- Uncontrolled disease eventually results in inflammation spreading beyond the synovium of the joint to other nearby structures, including the tenosynovium of tendons, ligaments, other soft-tissue structures, and bone. Subcutaneous nodules can occur in more severe disease and are associated with a worse prognosis.
- Extra-articular features are common and may involve multiple organs, including the skin, eyes, lungs, and blood vessels.