

Immunogenetics Open Access

A Brief Introduction of Rheumatoid Arthritis

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DESCRIPTION

Rheumatoid Arthritis (RA) is an autoimmune and inflammatory disease in which our immune system usually destroys healthy cells in our body, resulting in inflammation in the affected areas. RA primarily affects the joints, which are frequently attacked at the same time. The lining of joints is affected by rheumatoid arthritis, which generates a painful swelling that can lead to bone degradation and joint deformation. Rheumatoid arthritis causes inflammation, which can cause harm to other regions of the body. Despite the fact that new types of drugs have significantly improved treatment choices, severe rheumatoid arthritis can still cause physical disability.

The signs and symptoms of rheumatoid arthritis: joints that are tender, heated, and swollen; morning stiffness and inactivity are the most common causes of joint stiffness; Fever, fatigue, and a loss of appetite; smaller joints, such as the joints that connect your fingers to our hands and your toes to our feet, are often the first to be affected by early rheumatoid arthritis. Wrists, knees, ankles, elbows, hips, and shoulders are frequently affected as the condition advances. Symptoms appear in the same joints on both sides of our body in the majority of cases.

Inflammation which is not controlled breaks cartilage, which serves as a "shock absorber" in our joints. This can cause joints to shrink over time. Our bone will eventually dissolve. It's possible that our joint of will fuse as a result of this. RA develops between the ages of 30 and 60 but on the other hand, it can strike anyone. Young-onset rheumatoid arthritis affects children and young adults, mainly between the ages of 16 and 40. Lateronset rheumatoid arthritis is a kind of rheumatoid arthritis that appears after the age of 60. Rheumatoid arthritis's actual cause is uncertain. It's thought to be caused by a mix of genetics, hormones, and environmental variables.

Our immune system defends our body against the sickness. Major risk factors of RA includes previous infections, diet, genetic

factors, age, health inequity, physical, menmtal and emotional stress.

RA is mainly caused by a combination of hereditary variants and non-genetic causes. Exposure to irritants and toxins are examples of non-genetic variables. Rheumatoid arthritis is more common in those who have polymorphisms in the Human Leukocyte Antigen (HLA) genes. HLA genes assist our immune system in distinguishing between proteins produced by our body and proteins produced by invaders such as viruses and bacteria. The blood tests examine for symptoms of rheumatoid arthritis such as inflammation and blood proteins (antibodies). These may include the following: The Erythrocyte Sedimentation Rate (ESR), sometimes known as the "sed rate," indicates that your joints are inflamed.

C - reactive protein (CRP) is a type of anti-inflammatory protein. Rheumatoid factor is found in around 80% of persons with RA Antibodies against Cyclic Citrullinated Peptides (CCP) are found in 60 to 70 percent of persons with rheumatoid arthritis (proteins). The primary goal of rheumatoid arthritis treatment is to lessen joint discomfort and swelling. This should aid in the maintenance or improvement of joint function. The treatment's long-term goal is to slow or stop joint deterioration. Controlling joint inflammation helps you live a better life by reducing pain and improving quality of life. Early treatment with certain drugs can help achieve a better long-term result. Drug combinations may be more successful than single-drug therapy and appear to be about as safe. There are numerous drugs available to reduce joint pain, swelling, and inflammation, as well as to prevent or halt the progression of the condition. It may contain Nonsteroidal anti-inflammatory drugs (NSAIDs), Disease-Modifying Ant rheumatic Drugs (DMARDs). Surgery may be an option for severely injured joints to regain function. If pain is not controlled by medicine, doctor may suggest surgery. There is specific treatment for RA. Doctors employ the most up-to-date treatments to assist people with RA manage their symptoms and keep the disease from getting worse.

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