

# RHEUMATOID ARTHRITIS [SIMPLIFIED]

## Stages of RA



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### **Vital notes:**

- ✓ RA is a chronic debilitating joint disease that affects small joints of hands and foot.
- ✓ More common in females aged 20 to 50 years.
- ✓ It is not synonymous with Rheumatic Fever which occurs in children aged less than 15 years.
- ✓ It has got nothing to do with monthly Penicillin injections and checking ASO titre. Somebody on Penicillin injections or being checked for ASO titre should change the doctor immediately.
- ✓ Untreated disease may cause deformity of hands and foot causing deterioration of quality of life.
- ✓ Erosion of small joints along with loss of entire joint architecture is the basic disease process.
- ✓ Early morning stiffness of joints along with swelling of one or more small joints of hands is very characteristic.
- ✓ Treatment is done with Methotrexate, Hydroxychloroquine Sulfate, Sulfasalazine, Leflunomide and short courses of steroids.
- ✓ Difficult diseases are treated with costly injections called biologics.
- ✓ The motto of treatment is “ catch early, hit hard and achieve and maintain treatment goal “
- ✓ Lung and cardiac complications are common in long term disease.
- ✓ Rheumatologists but not the Orthopedicians nor neurologist are the best person to treat the disease.

### **Introduction:**

Rheumatoid Arthritis is an autoimmune disease of mankind where the cells and molecules who are responsible for security of our body, misidentify the joint tissue as foreign substance and start destroying them similar to the way they usually do when a bacteria or virus enters the body. This misdirected attack towards our own body is called autoimmune phenomenon.

The worst affected parts of the body are the joints of hands and foot. These small joints that are responsible for performance of day to day activities like eating, holding, writing, typing, washing etc become painful and swollen causing stiffness and deformity.

This results in poor quality of life and subsequent depression. Early diagnosis and continuous treatment with specific medicines is cornerstone of treatment.

### **What are the symptoms?**

Symptoms vary from person to person and also from early stage to late stage of the disease.

In early stage there may be mild pain and stiffness involving 1 to 4 small joints of the hands and feet with a typical pattern of stiffness of those joints after rising from bed. During this phase it is very difficult to diagnose the disease. But it is very important to catch the disease in this stage. Researchers have proved that joint damage and bony erosions start

even before the symptoms have manifested and hence earlier the treatments better the results.

In a full blown case of Rheumatoid arthritis the picture is very classical of a middle aged female presenting with pain and swelling of hand and foot joints along with early morning stiffness that responds to steroids brilliantly. Wrists and the knuckles are predominantly involved. Patients are unable to hold a pen or open the door or do cooking etc. Gripping the wrist firmly causes pain and the hand joints are warm.

In an advanced case of the disease we often find elderly people presenting with crooked hands with areas of permanent swelling and skin changes due to chronic friction. The skin fold may contract chronic fungal infections and the joints are swollen and painful.

A few other organs are damaged in silence and they create serious problem at the advanced stage of the disease. Lungs, Heart and Blood Vessels are frequently affected. There is accelerated cholesterol deposition in arteries of heart causing increased risk of heart attack and brain stroke. These patients frequently contract infections which are difficult to treat.

Involvement of spine or low back is uncommon. However, cervical spine or the neck region is the only part of the spine that may be affected in this disease.

### **What is the difference between Rheumatic Fever & Rheumatoid Arthritis?**

There is a heaven & hell difference between these two entities. Rheumatic Fever is a disease of childhood. It usually occurs in children aged less than 15 years and is characterised by excruciating pain, swelling and redness of one or more big joints of arms and legs that responds excellently to Aspirin. This disorder may cause cardiac problems and is the leading cause of Valvular Heart disease in India. It is often characterised by some skin rashes and rarely neurologic problems. The disease process, the causative agent and the clinical symptoms are completely different from that of Rheumatoid arthritis.

### **Why Penicillin injections are given on a monthly basis?**

Patients of Rheumatic fever often suffer a damage to the valves of the heart during the attack of Rheumatic fever. This damaged valves are potential sites of infections that may develop in the later part of the life. This infection is called Infective Endocarditis and may cause serious complications if not addressed properly. Penicillin injections are given as a form of prevention of development of this infection and have got no relationship with the wellness or cure of the disease. People who are aged above 15 years and are being treated with penicillin for the first time for joint pain occurring in small joints of hands should immediately change their doctor and consult a rheumatologist.

### **How is Rheumatoid Arthritis diagnosed?**

Rheumatoid Arthritis is diagnosed by its classical symptoms and some laboratory investigations. To identify early rheumatoid cases we usually follow a scoring system which includes counting of number of joints involved, the duration of the symptoms, checking ESR and CRP in blood and looking for the positivity of Rheumatoid Factor and Anti CP

Antibody. Patients with high values of Anti CP Antibody are very much likely to suffering from rheumatoid arthritis and also they are very much likely to suffer a aggressive disease course

### **Does each and every patient of rheumatoid arthritis develop crooked hands and foot?**

No. Not all patients suffer from such a devastating complications. There are important characteristics which if present predict severe destructive disease. Females, Smokers, High values of Anti CCP or Rheumatoid Arthritis, Family History of Rheumatoid Arthritis, Early evidence of Joint destruction on X Ray are a few important features who will go forward to develop destructive disease.

### **How Rheumatoid Arthritis is treated?**

Continuous Physical activity of the involved joints is the corner stone of treatment. More the joints are active, less the damage.

Cessation of smoking is mandatory. Smokers tend to develop early joint destruction

Medicines that used in treating rheumatoid arthritis are together called Disease Modifying Anti Rheumatoid Drugs or DMARDs.

Methotrexate, Hydroxychloroquine Sulfate, Sulfasalazine, Leflunomide are the principal DAMRDs. Of these, methotrexate is the backbone of therapy. Methotrexate is used on a once a weekly basis starting from a dose of 5 mg to 50mg/week and a weekly 5mg of Folic Acid supplement is given to neutralise the adverse effects of Methotrexate. The detail of the drugs is mentioned below.

### **Why I am being given Steroids?**

Steroids are given for a short period of increased disease activity. In rheumatoid arthritis we do not prescribe steroids in a regular basis. It is often prescribed when the patient is put on the DMARDs for the first time and when there is break through pain or active disease during the treatment.

Steroids are used in low dose in a decreasing dosage pattern over weeks and usually are not continued more than a month.

### **What are Biologic agents? Why they are so costly?**

Biologic agents are highly specific molecules who directly block the action of the culprit chemicals in our body that cause the joint destruction. They are highly researched molecule and is manufactured abroad. They are usually available in injection formats and have their own side effect profile which includes reactivation of Tuberculosis and other opportunistic infections. Usually patients are checked for latent Tuberculosis Infections, HIV, Hepatitis B and C before the treatment is started.

Biologics cause excellent response to the disease causing alleviation of pain and swelling and sense of well being but unfortunately they do not provide any cure. Hence, if biologics are stopped then there are chances that the disease activity may worsen requiring more biologics or aggressive treatment with DMARDs.