

AWARENESS ON ARTHRITIS

In simple terms Arthritis means inflammation of joints. Inflammation is characterised by pain, swelling, redness, and local warmth. Apart from Osteoarthritis, which is a non-inflammatory cause of joint pain, most of the diseases that occur due to arthritis are caused by autoimmunity. Autoimmunity is an unstoppable disease process that is caused by the cells and chemicals of our normal immune system, who keep on attacking and damaging our own joints. These autoimmune damage causing arthritis is broadly called RHEUMATOLOGICAL DISEASES and the hallmark of them is RHEUMATOID ARTHRITIS. The Rheumatological diseases do not spare any age group. They can start at the age of 2 years and even may occur for the first time in a patient aged 80 years too. There are more than 300 disease types under the domain of RHEUMATOLOGY.

TYPES:

We would tabulate a few for easier understanding.

Sl	Name of the Disease	Age	Symptoms	Diagnostic Strategy
1	Rheumatoid Arthritis	20-70 years	Pain & Swelling of small joints of hands with early morning stiffness and may affect larger joints such as knees, elbows and shoulders and if untreated may cause deformity of the hands.	Classic symptoms + Raised ESR, CRP and Positive Rheumatoid Factor or Anti CCP Ab
2	Ankylosing Spondylosis	15-40 years	Usually males are affected. Pain located at lower back region that increases at second half of the night or after prolonged rest and improves with activity. Often associated with pain and swelling of some large joints and some may complain of red eyes.	X ray of Sacroiliac Joints shows Inflammation + A genetic Test called HLA B27 which is positive in 90% of patients. ESR and CRP values may be very high.
3	Fibromyalgia	20-50 years	Almost females are affected and they mostly complain of aches and pains all over the body. Often associated with Depression, low mood, unrefreshed sleep and migraine like headache.	No diagnostic test available as almost all reports is normal. Diagnosed by clinical eye.
4	Systemic Lupus Erythematosus [SLE]	2-40 years	A multiorgan disease that is characterised by facial rash, sun exposed rashes, joint pain, anaemia, kidney dysfunction, lung and heart problems.	Clinical picture is often classic. Blood tests like ANA, Anti ds DNA Antibody is positive. Treated with long term steroids.
5	Reactive Arthritis	16-50years	Pain and swelling of one or two large joints especially knees and ankles that develop within 3 days to 3 months after a viral or bacterial infection and is self limiting	No specific diagnostic tests are available. ESR and CRP value may be high. Some patients have HLA B27 genetic test POSITIVE
6	Gout	50years and above	Common in elderly males and can be acute or chronic. Acute gout affects the ball of the great toe which may become extremely swollen, red and painful and can bring in fever	Blood levels of Uric Acid DO NOT help in diagnosis and it may be normal during the attack. Aspiration of joint fluid and examination under microscope can visualise uric acid crystal.

WHO ARE AT THE RISK?

In fact all the Rheumatological diseases are caused by more than one gene. In fact 100 of genes are responsible for the disease and the simple arithmetic of parents having the disease will result in the same in the offspring does not apply here. But diseases like Ankylosing Spondylosis, Psoriatic Arthritis and Rheumatoid Arthritis often run in the family.

People who smoke or eat high protein food especially rich in saturated fats and smoked foods develop devastating consequences of a well established disease characterised by excessive pain, poor response to the treatment and accelerated joint destruction and early development of deformities.

TREATMENT

The most important part of the treatment is physical therapy and dynamic exercise. The fluid or liquid that is present at the joint space is normal circulated throughout the day and fresh joint fluid is formed from the ultra filtration of the blood. The more a person is active, there is more circulation and the damaging chemicals are washed out of the joints. This causes reduced destruction of the joints.

The most effective medicine is suppressing any form of autoimmune inflammation is steroids. Steroids act rapidly at the site of damage and can give dramatic relief to pain. In most of the Rheumatological diseases steroids are used for short duration and at low doses. High doses of steroids are used in Rheumatological emergencies. Chronic use of steroids may cause high blood pressure, development or worsening of diabetes, stomach ulcers, osteoporosis of bones, swelling of the body etc.

The next group of drugs are classic pain killers also known as NSAIDs. They are used for short duration but diseases like Ankylosing Spondylosis need long term treatment with NSAIDs, Adverse effects are stomach ulcer, kidney damage and cardiac problems.

The next set of drugs is called Disease Modifying Anti Rheumatoid Drugs or DMARDs. Methotrexate [with Folic Acid], Sulfasalazine, Hydroxychloroquine Sulfate, Minocycline and Leflunomide are together called Synthetic DMARDs [sDMARD]. They modify the disease and prevent progression of the disease. They are used in variable combinations in different Rheumatological disorders. They have their own battery of adverse effects and hence periodic monitoring of Haemoglobin, Blood Counts, Liver and Kidney Function is necessary.

The most advanced group of medicines are called Biological DMARDs or only Biologicals. They are costly highly proficient injections that exclusively target and suppress the offending chemicals that damage the joint. They can result in excellent response to the treatment and people benefit significantly with such shots. Once again they have a unique school of adverse effects which is characterised by development of serious infection such as Tuberculosis, Hepatitis or some neurological damage. It is prudent to rule out any latent tuberculosis, Hepatitis or HIV infection prior to initiation of the drug. Further, it is also important to vaccinate the patient against common vaccine preventable diseases before starting this therapy.

CONCLUSION

With rapid and continual up gradation of medical knowledge most of the Rheumatological disorders can be addressed well. The crux of the treatment lies in early detection. Most of the Rheumatological disorders do not come with all the specific clinical symptoms and neither there are any confirmatory diagnostic tests. Hence early and correct diagnosis depends on the clinical eye of the treating doctors. It is always beneficial to catch them young and hit them hard before any damage is accrued. Life expectancy is hardly shortened and quality of life is usually preserved with proper management program.