



SNS COLLEGE OF ALLIED HEALTH SCIENCES
SNS Kalvi Nagar, Coimbatore - 35
Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT: ALLIED HEALTH SCIENCES
COURSE NAME: ORTHOPEDICS

Topic: Rheumatoid Arthritis



Introduction



Definition

Rheumatoid arthritis (RA) is a chronic (long-lasting) autoimmune disease that mostly affects joints. RA occurs when the immune system, which normally helps protect the body from infection and disease, attacks its own tissues. . It can lead to joint damage, disability, and other medical problems.





Etiology



The exact cause of rheumatoid arthritis is unknown.

Genetic factors

Environmental factors

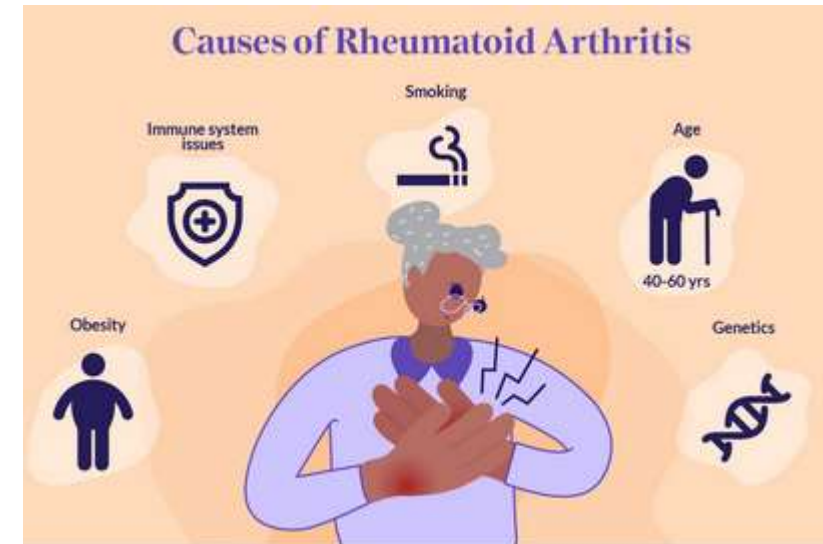
Hormonal factors

Epigenetic factors

Epigenetic mechanisms may induce heritable variations in gene expression without actual changes in DNA sequence.

Other factors

Obesity may be a risk factor for RA.





Stages of rheumatoid arthritis

- The four stages of rheumatoid arthritis are:

Stage 1: In early-stage RA, there's inflammation in the tissue around the joint(s).

Stage 2: The inflammation has begun to damage the cartilage in the joints. noticed symptoms are stiffness and a decreased range of motion.

Stage 3: The inflammation is so severe that it damages the bones. noticed symptoms are more pain, stiffness and even less range of motion than in stage and also may start to see physical changes.

Stage 4: In this stage, the inflammation stops but the joints keep getting worse. symptoms are severe pain, swelling, stiffness and loss of mobility.



Risk factors & Complications



RISK FACTORS

Family history
gender- womens are mostly affected
smoking
obesity

COMPLICATIONS

Damaged or deformed joints
Viral infections
Dry eyes and dry mouth
Carpal tunnel syndrome
Osteoporosis
Heart disease
Interstitial lung disease
Lymphoma

Complications of Rheumatoid Arthritis



Cardiovascular
Complications



Pulmonary
Complications



Rheumatoid Nodules



Ocular
Complications



Hematologic
Complications



Neurological
Complications



Signs & Symptoms



Pain, swelling, stiffness and tenderness in more than one joint

Stiffness, especially in the morning or after sitting for long periods

Pain and stiffness in the same joints on both sides of your body

Fatigue (extreme tiredness)

Weakness

Fever





Assessment 1



- 1. What is RA
- 2. Mention the Risk factors
- 3. Etiological factor



Diagnosis



Medical history

Physical exam

The blood tests look for inflammation and blood proteins (antibodies) that are signs of rheumatoid arthritis. These may include:

Erythrocyte sedimentation rate (ESR or “sed rate”)

C-reactive protein (CRP)

Rheumatoid factor (RF) antibodies

Cyclic citrullinated peptide (CCP) antibodies

X-rays

Ultrasounds

Magnetic resonance imaging (MRI) scans



Assessment 2



- Role play about symptoms-1



Treatment



The most important goal of treating rheumatoid arthritis is to reduce joint pain and swelling. Doing so should help maintain or improve joint function. The long-term goal of treatment is to slow or stop joint damage. Managing joint inflammation reduces your pain and improves your quality of life.

Rheumatoid arthritis treatments typically include one or more kinds of medication. In certain cases, your provider may recommend surgery.



Medical management



- A combination of drugs may be more effective than, and appear to be as safe as, single-drug therapy.
- There are many medications to decrease joint pain, swelling and inflammation, as well as to prevent or slow down the disease. Medications that treat rheumatoid arthritis include:
 - Disease-modifying antirheumatic drugs (DMARDs)
 - Non-steroidal anti-inflammatory drugs (NSAIDs)
 - Corticosteroids
 - Janus kinase (JAK) inhibitors
 - Biologics



Surgical management



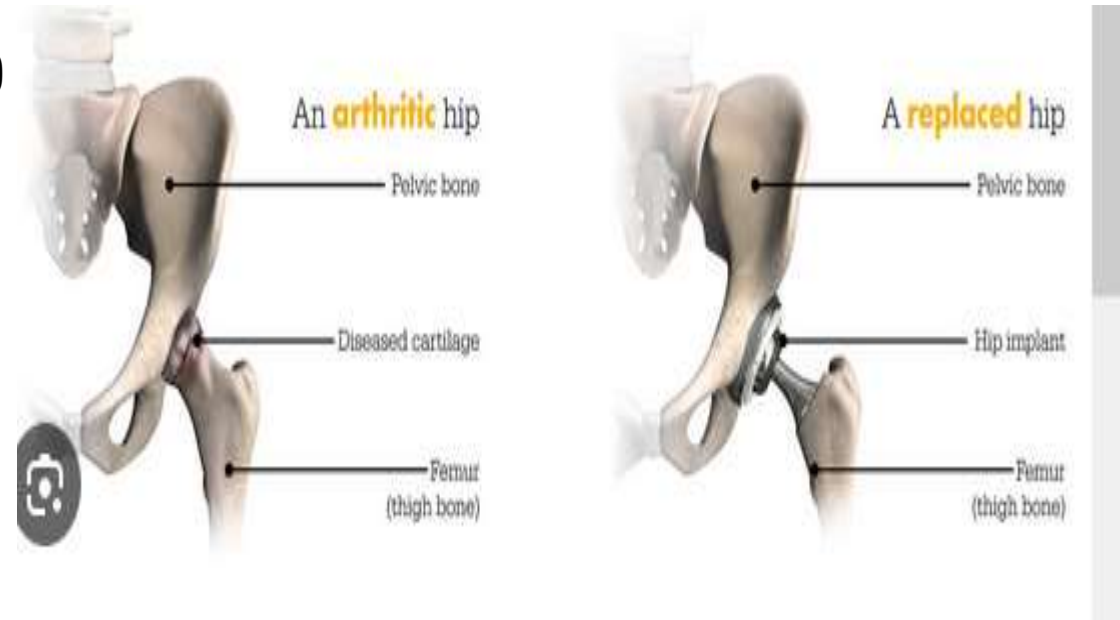
Knee replacement surgery (knee arthroplasty) is surgery to replace all or some of the knee joint. the surgeon will replace damaged cartilage and bone with a prosthetic joint. It can take up to a year to recover fully after a knee replacement,



Surgical management

Hip replacement

- A hip replacement is a surgical procedure. An orthopedic surgeon will replace the hip (or parts of it) with a human-made implant (a prosthesis). surgeon might refer to a hip replacement as a hip arthroplasty (a joint replacement surgery).
- Other surgeries to correct a deformity





Quiz about

- 1. Surgical managements

Assessment-3

