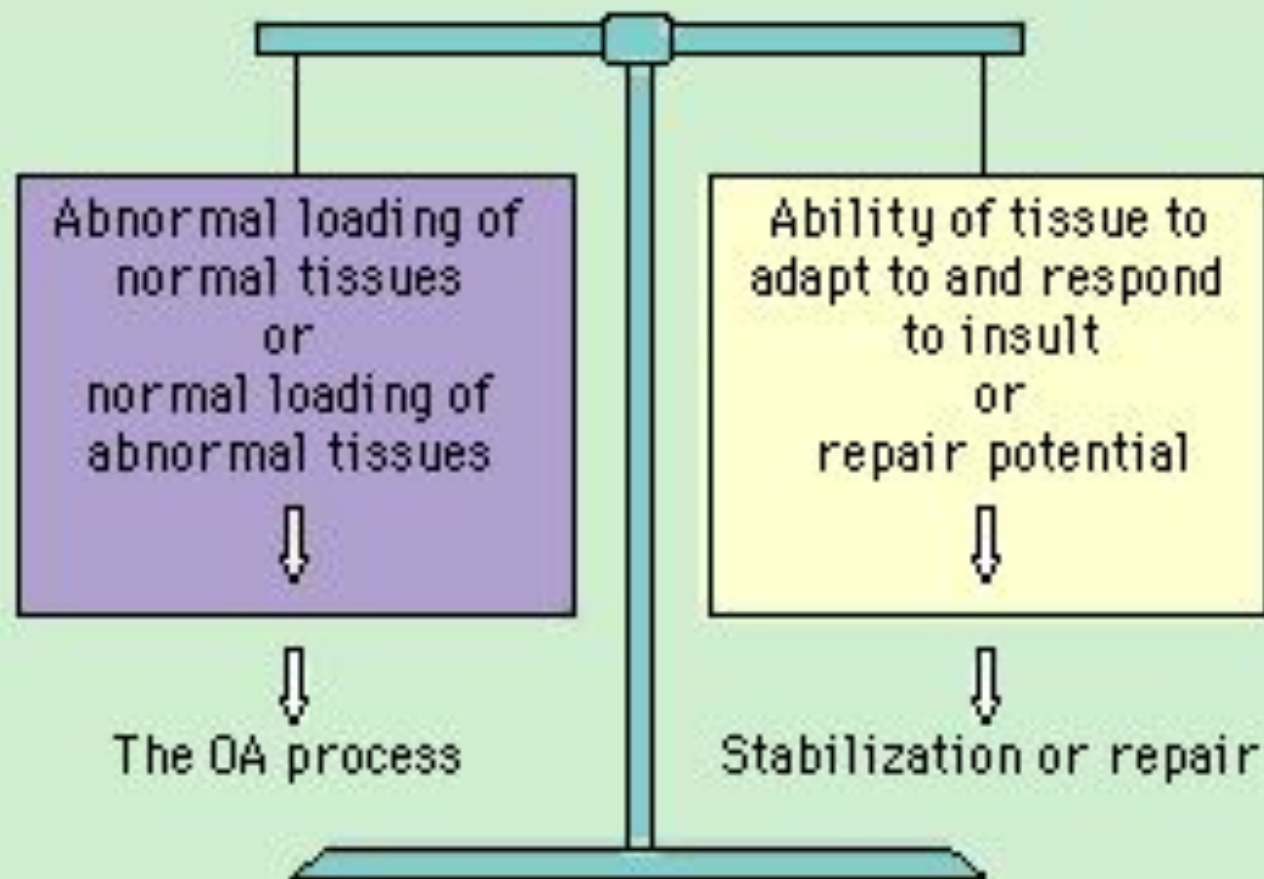
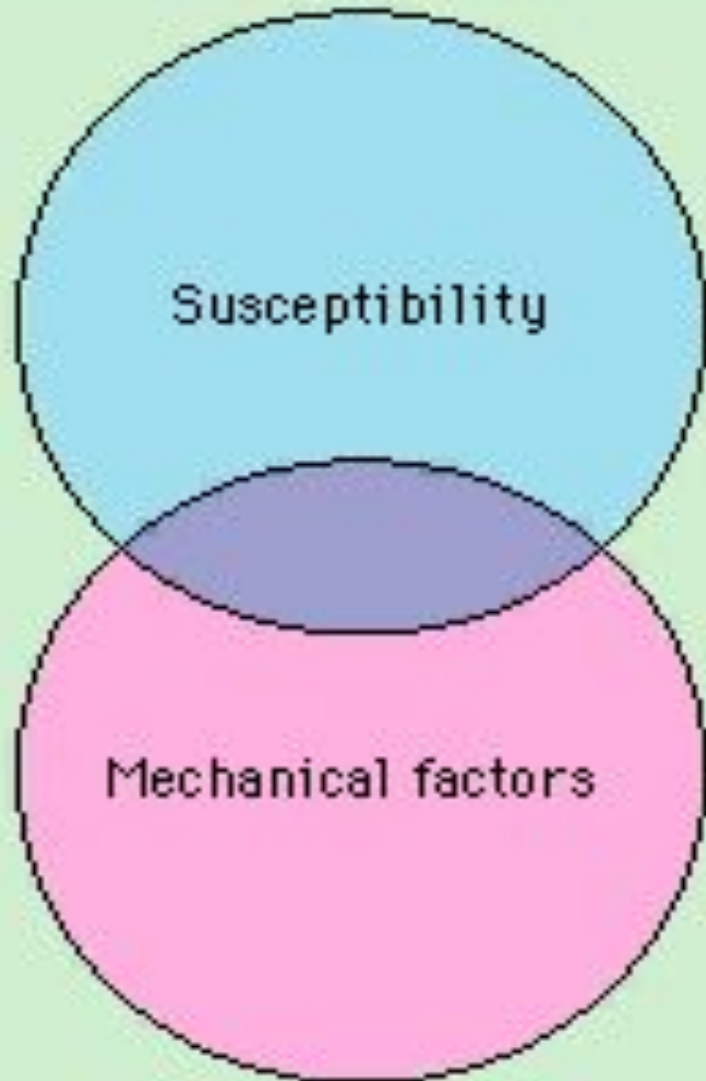


OA as a Balance of Etiologic Factors and Tissue Processes



Individual Risk Factors for OA

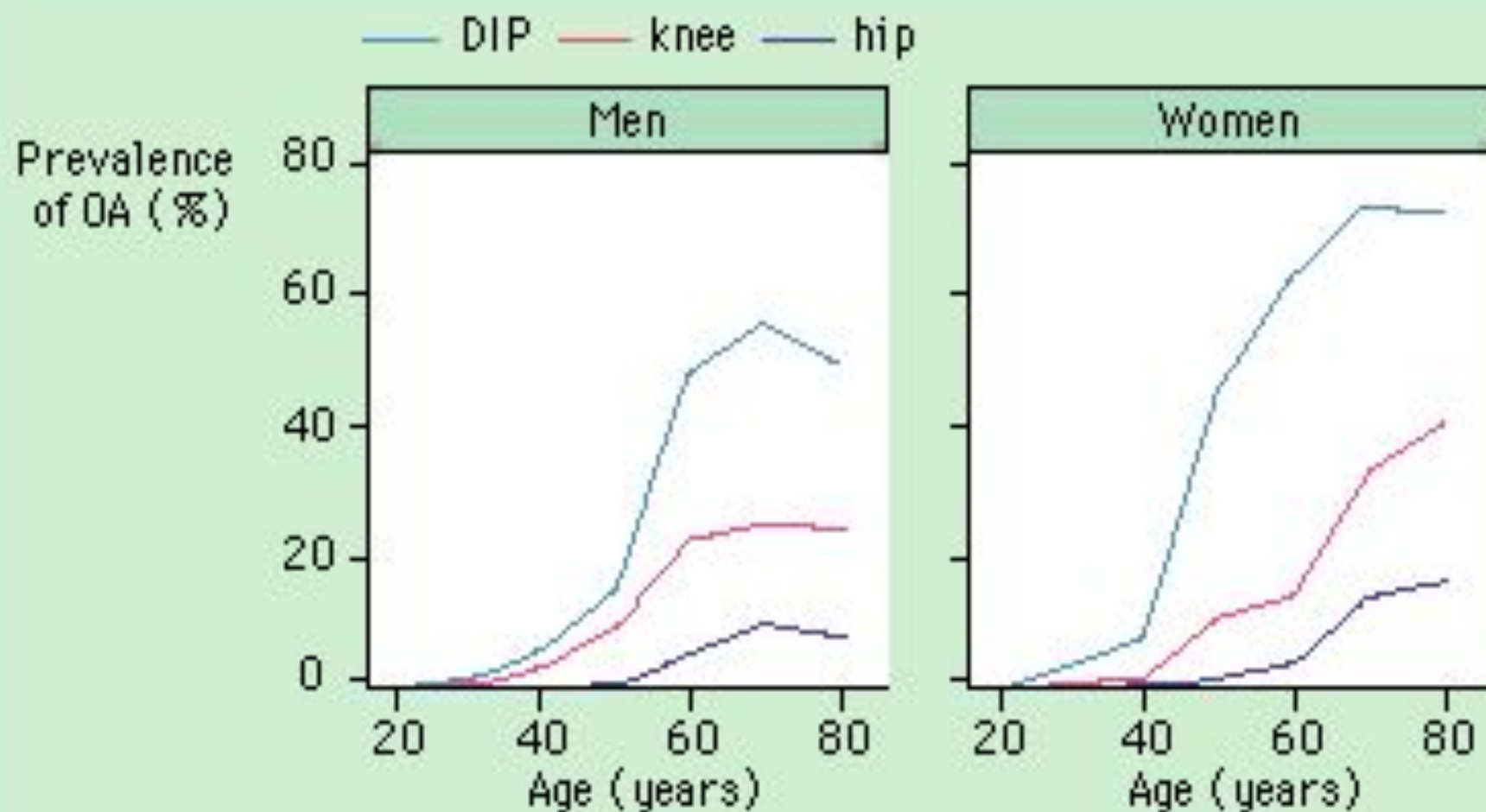


- Obesity
- Hereditiy
- Age**
- Hypermobility
- Diabetes mellitus,**
- HTN, hypeuricemia**

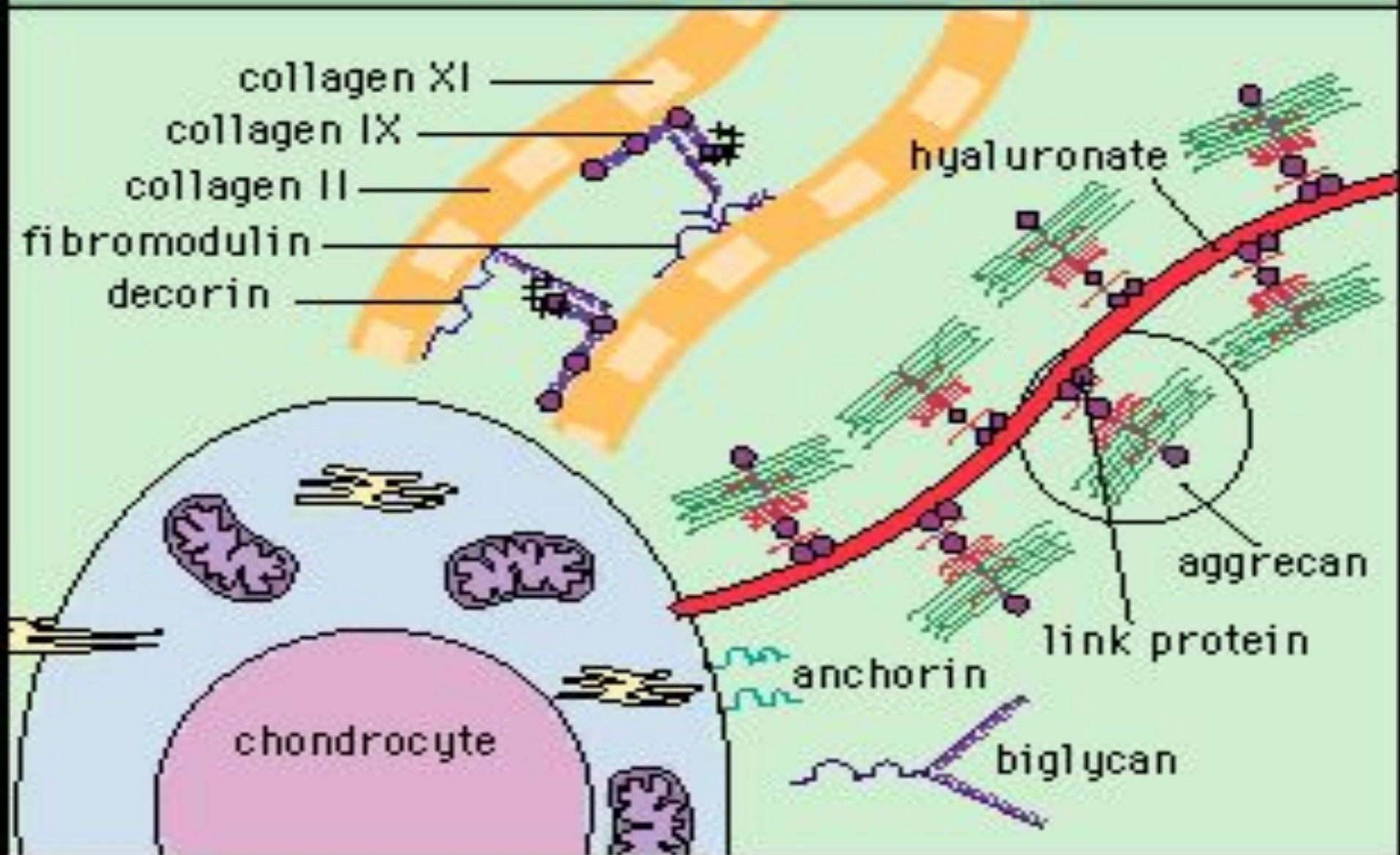
- Trauma
- Joint shape
- Repetitive use
- occupational
- leisure

- **Reproductive variables (Estrogens)**
 - **Osteoporosis**
 - **Smoking**

Prevalence of Radiographic OA



Major Macromolecules in the ECM of Articular Cartilage



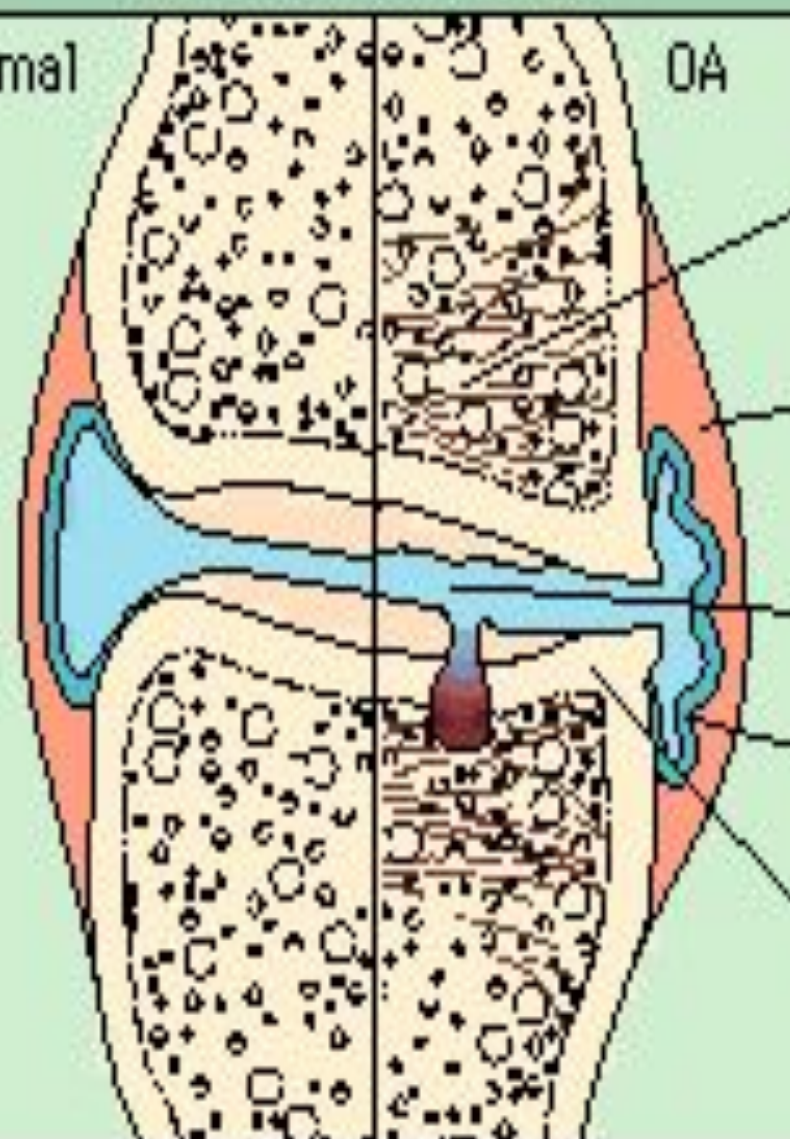




A Normal Versus an Osteoarthritic Synovial Joint

Normal

OA



irregular thickening and remodeling of subchondral bone, with sclerosis and cysts

thickening, distortion and fibrosis of the capsule

fibrillation, loss of volume and degradation of articular cartilage

modest, patchy, chronic synovitis

osteophytosis and soft tissue growth at joint margin

Monoarticular, oligoarticular or polyarticular (generalized)

Chief joint site (index joint site) and localization within the joint:
Hip (superior pole, medial pole or concentric)
Knee (medial, lateral, patellofemoral compartments)
Hand (interphalangeal joints and/or thumb base)
Spine (apophyseal joints or intervertebral disc disease)
Others

Classification into primary and secondary forms of OA

Primary = idiopathic

Secondary indicates that a likely cause can be identified

Causes of secondary OA

1. Metabolic: examples include,
Ochronosis
Acromegaly
Hemochromatosis
Calcium crystal deposition
2. Anatomic: examples include,
Slipped femoral epiphysis
Epiphyseal dysplasias
Blount's disease
Legge-Perthe disease
Congenital dislocation of the hip
Leg length inequality
Hypermobility syndromes
3. Traumatic: examples include,
Major joint trauma
Fracture through a joint or osteonecrosis
Joint surgery (e.g. meniscectomy)
Chronic injury (occupational arthropathies)
4. Inflammatory: examples include,
Any inflammatory arthropathy
Septic arthritis

Classification by the presence of specific features

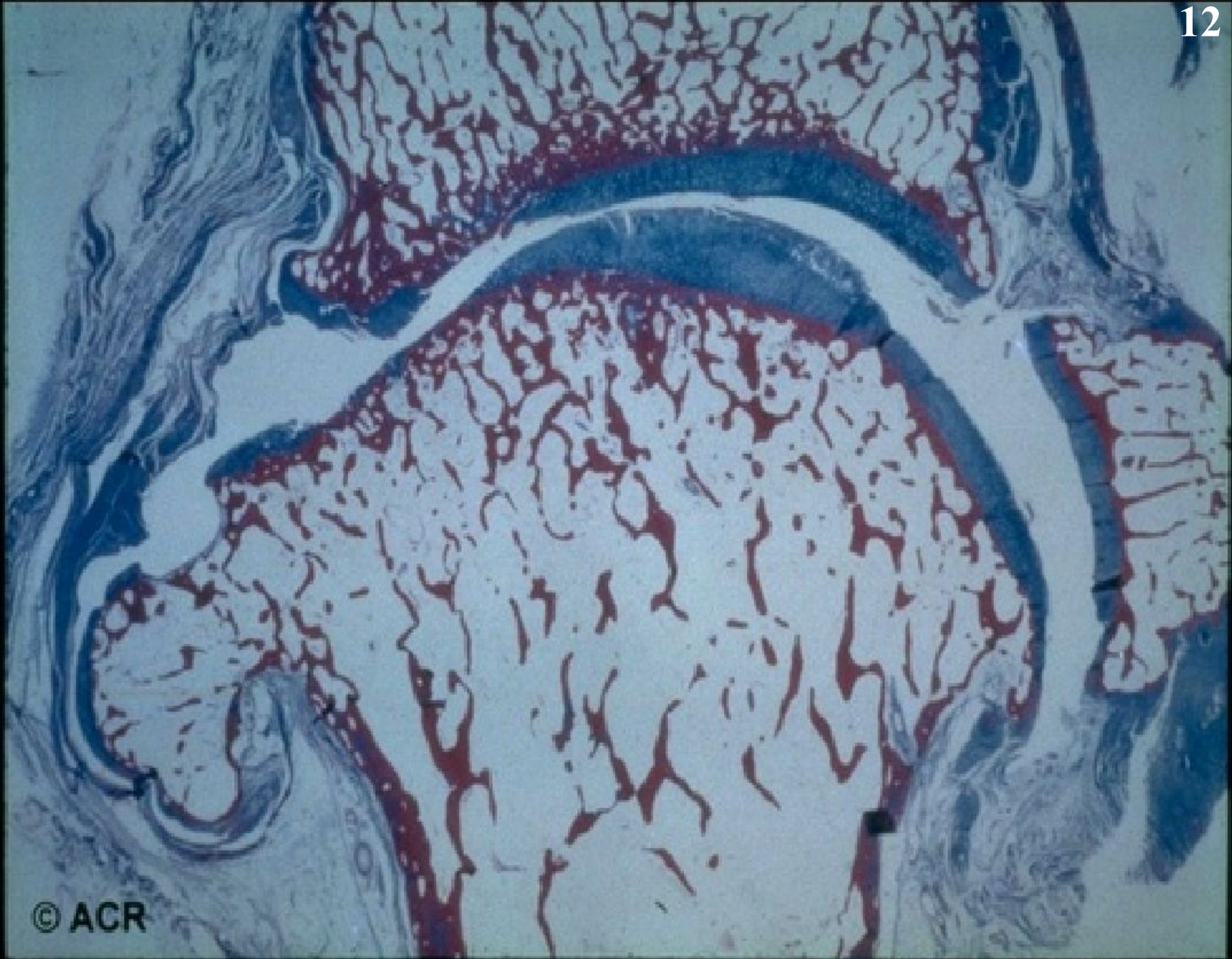
Inflammatory OA
Erosive OA
Atrophic or destructive OA
OA with chondrocalcinosis
Others

Osteoarthritis: General Features

Clinical	Laboratory	Radiographic
Age >50	ESR <40 mm/Hr	Osteophytes
Morning Stiffness <30 Minutes	RF Titer <1:40	Joint Space Narrowing
Crepitus	Noninflammatory Synovial Fluid	Subchondral Cysts and Sclerosis
Joint tenderness		
Bony Enlargement		Malalignment
Joint limitation		
Pain on effort		



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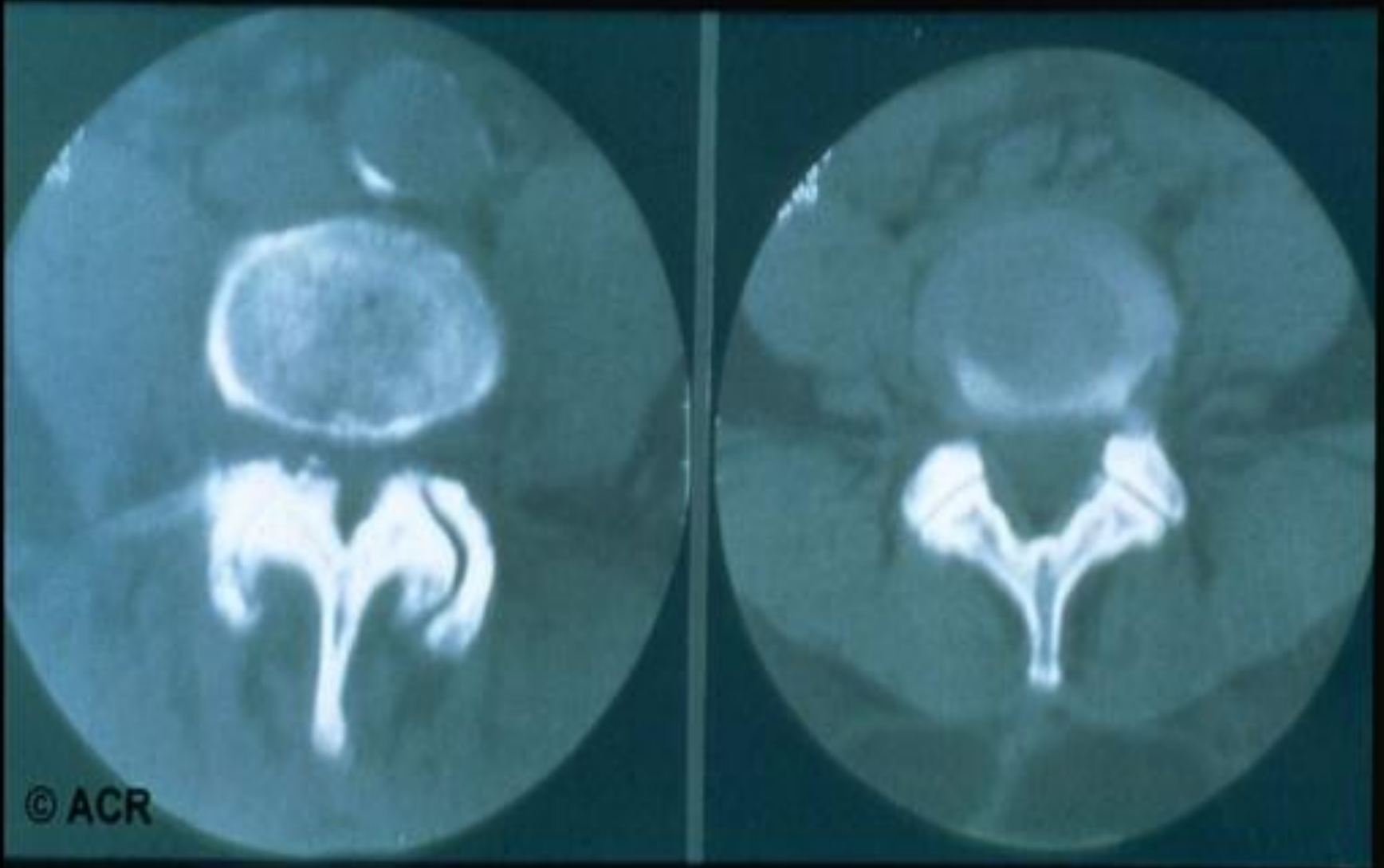










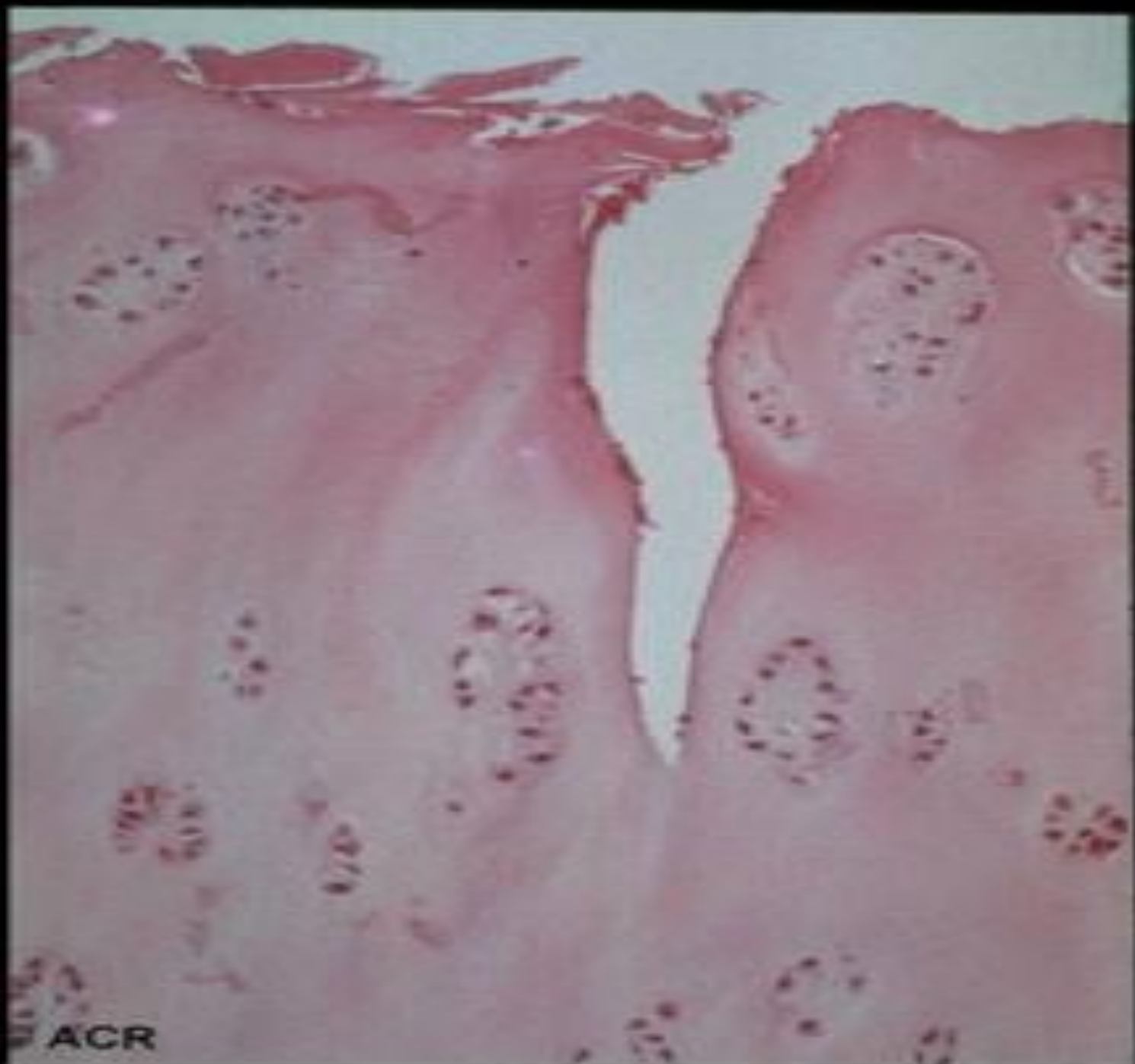




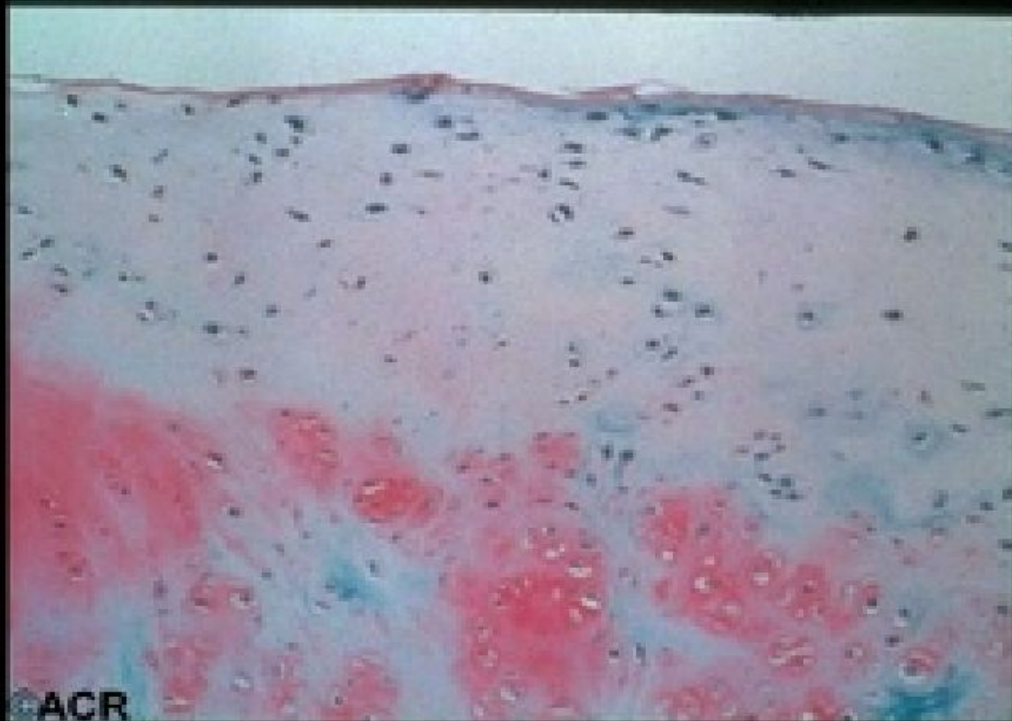
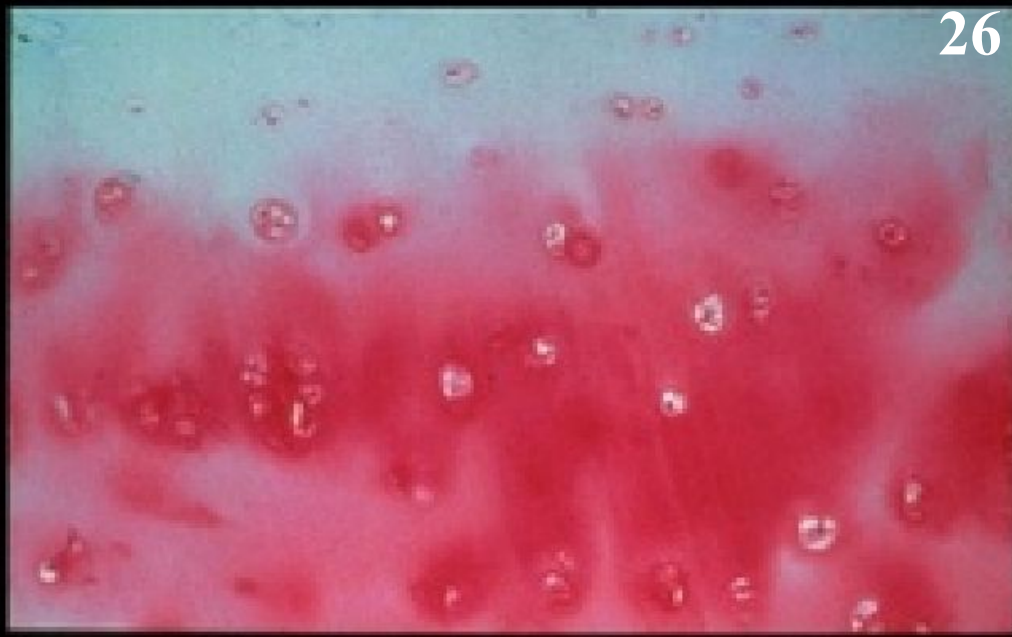








ACR





Education

Exercise therapy

Hydrotherapy

Footwear and walking aids

Systemic drug therapy

Intra-articular drug therapy

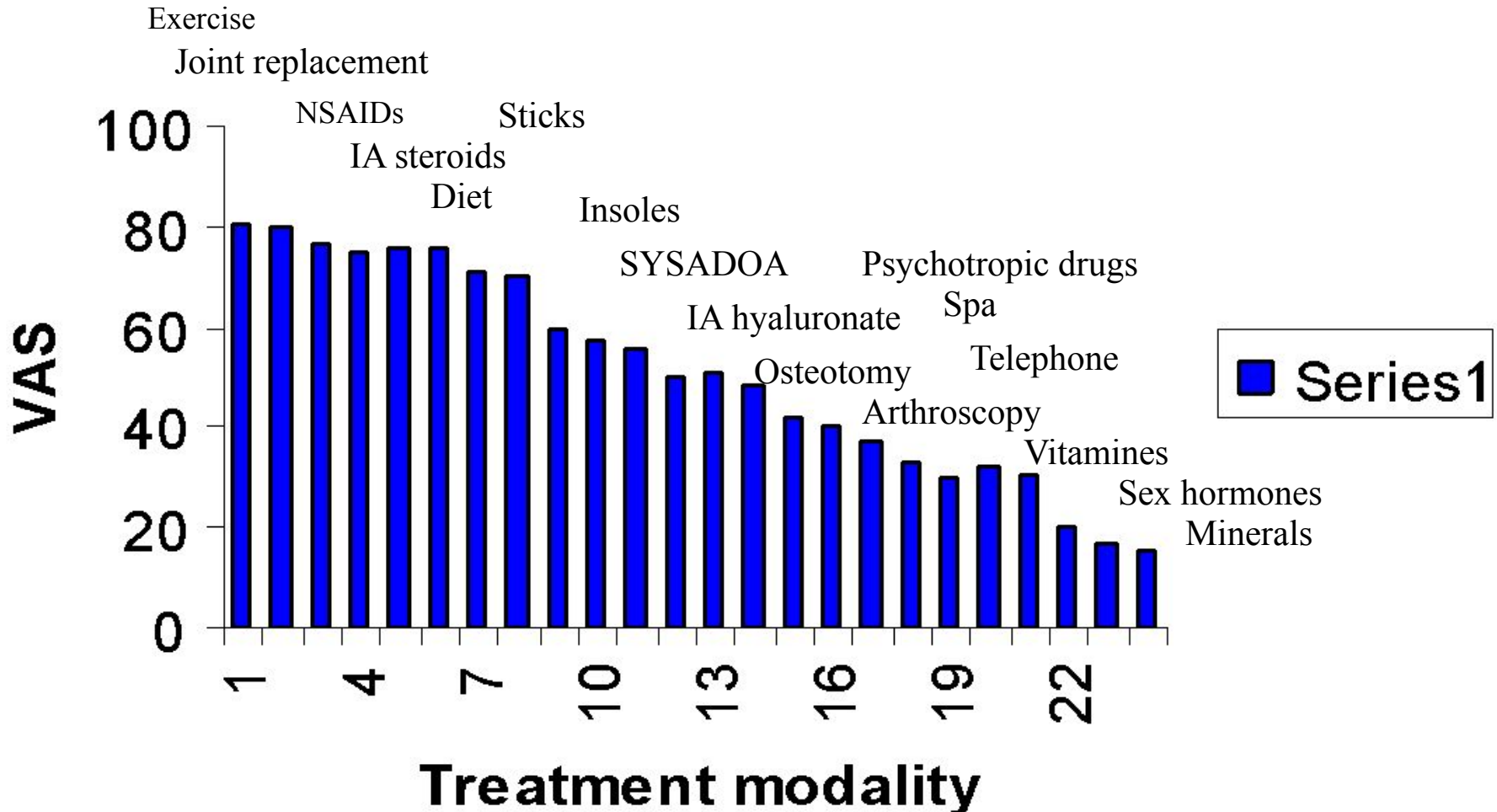
Rubefaciens and other local applications

Surgery: arthroscopy, osteotomy, joint replacement, arthrodesis

Complimentary techniques for pain relief:

chiropractic, acupuncture, shiatsu, massage, herbal

Overall experts' opinion of the usefulness of the different treatment modalities for OA (EULAR)



0 = I do not recommend 100 = I strongly recommend



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