Top 5 tips: Rheumatoid Arthritis

Arthritis Subcommittee
Rheumatoid arthritis (RA)

- Chronic systemic disease of unknown cause
- Inflammation primarily affects the synovia
- Usually, symmetrical involvement of peripheral joints
- Chronic synovial inflammation leads to structural damage of cartilage, bone, and ligaments.
- In most of the patients, multiple organs are affected.

Clinical and laboratory diagnosis of RA

- Diagnosis = combination of findings that are followed over time
- No single laboratory tests, histologic or X-ray findings confirms RA
- Rheumatoid factor is positive in 85% of the patients with RA but can also be found in other diseases
- Anti-citrullinated peptide antibodies play a critical role in initiating the inflammatory response in RA.
Tip#1: X-ray findings

- Bilateral, symmetric, proximal
- Dislocations
- Periarticular osteopenia
- Concentric joint space narrowing
- Protrusio Acetabulum
- Erosive dens & endplates
Tip#2: US findings
Tip#3: MRI findings

- Synovitis
- Erosions
- Synovitis, osteitis
- Synovitis, osteitis
- Synovitis & Tenosynovitis
- Osteitis
- Synovitis
- Periodontal synovitis & erosion

T1w + Gd
Tip#4: Differential diagnoses

- Erosive OA
- CPPD
- Septic arthritis
- Synovial chondromatosis
- Psoriatic arthritis
- Crowned dens in CPPD
- Gout
- Hemophilia
- Osteoarthritis
Tip#5: Imaging as prognostic tool

- Synovitis at US/MRI is an independent predictors of erosive progression in early RA patients.
- BME is a strong predictor for subsequent erosions.
- Tenosynovitis of the flexor tendons of the hand in patients with undifferentiated arthritis has been associated with progression to clinical RA.
References

Contributors

Gordana Ivanac
Del Grande Filippo
Eshed Iris

Project Coordinators

Chiara Giraudo
Winston Rennie