

THE ROLE OF MR IMAGING OF HAND AND WRIST IN EARLY DETECTION OF RHEUMATOID ARTHRITIS

Essay

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دورالتصوير بالرنين المغناطيسي لليد ومفصل المعصم فى اكتشاف التغيرات المبكرة لمرض الروماتيزم المفصلي

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List Of Abbreviations

AM	Arthritis mutilans
ASS	Atlantoaxial subluxation
BD	Boutonnière deformity
BMI	Body mass index
C1-C2	Cervical vertebrae 1-2
CMC	Carpometacarpal
CR	Conventional radiography
Cy	Cytokine
(DCE-MRI)	Dynamic contrast enhanced MRI
DIP	Distal interphalangeal joint
D.R.U.J	distal radioulnar joint
E-rate	Enhancement rate
ESR	Erythrocyte sedimentation rate
FDG	[¹⁸ F]fluoro-2-deoxy-D-glucose
F.O.V	Field of view
⁶⁷Ga	Gallium
Gd-DTPA	Gadolinium- diethylenetriamine pentaacetic
HLA-DR	Human leukocytic antigen
IL	Interleukin
I.V.	Intra venous
MCP	Metacarpophalangeal joint
MMP	matrix metalloproteinases
MRI	Magnetic resonance imaging
NMHC	Non major histocompatibility complex
NSAIDs	Non steroidal anti inflammatory drugs
OMERACT	outcome measures in RA clinical trials
PA	Posteroanterior view
PET	Positron emission tomography
PIP	Proximal interphalangeal joint
RA	Rheumatoid arthritis
RAMRIS	Rheumatoid arthritis magnetic resonance

	imaging score
RER	Relative early enhancement rate
ROI	Region of interest
SPIO	Superparamagnetic iron oxide particles
STIR	Short T1 inversion recovery
^{99m}Tc-HMPAO	technetium-99m-labeled hexamethylpropyleneamine oxime
TFCC	Triangular fibrocartilaginous complex
TNF	Tumor necrosis factor
US	Ultra sound

Abstract

Rheumatoid arthritis (RA) is a chronic systemic autoimmune disorder of unknown etiology which involves the synovial joints and often results in irreversible destruction of articular cartilage and subchondral bone.

Early detection & staging of the rheumatoid arthritis appears to have significant prognostic implications with disease progression and it is becoming an important part of the clinical management.

MRI has excellent results in evaluation of early RA as it combines the ability to image the structural damage with excellent soft tissue resolution

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MRI demonstrates bone erosions, synovial hypertrophy, synovitis and tenosynovitis. Other signs include tendinitis, enthesitis, ligament and tendon tears, bone marrow edema, and joint effusions.

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*To My Dear Parents,
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Anatomy Of Hand And Wrist

***Pathological And
Clinical Correlation
Of Rheumatoid
Arthritis***

***MRI Manifestations
Of Rheumatoid
Arthritis Of Hand
And Wrist***

***Role Of Other
Radiological Techniques
In Assessing
Rheumatoid Arthritis***