



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



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Enthesal Involvement in Patients with Rheumatoid Arthritis

Thesis

*For Partial Fulfillment of
M.D. Degree in **Internal Medicine***

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

لَسْبَقَ أَنْتَ لَا أَعْلَمُ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Abbreviations

Abb.	Full term
<i>ACPA</i>	<i>Anti-citrullinated protein-antibodies</i>
<i>ACR</i>	<i>American college of Rheumatology</i>
<i>Anti-CCP</i>	<i>Anti-cyclic citrullinated peptide antibodies</i>
<i>APCs</i>	<i>Antigen presenting cells</i>
<i>CDAI</i>	<i>Clinical Disease Activity Index</i>
<i>CRP</i>	<i>C-Reactive Protein</i>
<i>csDMARDs</i>	<i>Conventional synthetic chemical compounds.</i>
<i>DAS</i>	<i>Disease Activity Score</i>
<i>DISH</i>	<i>Diffuse idiopathic skeletal hyperostosis</i>
<i>DMARDs</i>	<i>Disease-modifying antirheumatic drugs</i>
<i>EAM</i>	<i>Extra-articular manifestations</i>
<i>ELISA</i>	<i>Enzyme-linked immunosorbent assay</i>
<i>ERA</i>	<i>Enthesitis related arthritis</i>
<i>ESR</i>	<i>Erythrocyte Sedimentation Rate</i>
<i>EULAR</i>	<i>European League Against Rheumatism</i>
<i>GUESS</i>	<i>Glasgow Ultrasound Enthesitis Scoring System</i>
<i>HAQ</i>	<i>Health Assessment Questionnaire</i>
<i>HAQ-DI</i>	<i>Health Assessment Questionnaire Disability Index</i>
<i>HLA</i>	<i>Human Leukocyte Antigen</i>
<i>HRT</i>	<i>Hormone replacement therapy</i>
<i>IC</i>	<i>Immune complex</i>
<i>ICAM-1</i>	<i>Intercellular adhesion molecule-1</i>
<i>ICs</i>	<i>Immunocomplexes</i>
<i>IL</i>	<i>Interleukin</i>
<i>ILD</i>	<i>Interstitial Lung Disease</i>
<i>IV</i>	<i>Intravenous</i>
<i>JAK</i>	<i>Janus kinase</i>

List of Abbreviations (Cont...)

Abb.	Full term
<i>JAS</i>	<i>Juvenile ankylosing spondylitis</i>
<i>MASEI</i>	<i>Madrid Sonogarhic Enthesitis Index</i>
<i>MCP</i>	<i>Metacarpophalangeal</i>
<i>MMPs</i>	<i>Matrix metallo-proteases</i>
<i>MRI</i>	<i>Magnetic resonance imaging</i>
<i>MTX</i>	<i>Methotrexate</i>
<i>No</i>	<i>Number</i>
<i>NSAIDs</i>	<i>Non-steroidal anti-inflammatory drugs</i>
<i>OPG</i>	<i>Osteoprotegerin</i>
<i>PAD 4</i>	<i>Peptidyl arginine deiminase, type IV.</i>
<i>PAF</i>	<i>Platelet activating factor</i>
<i>PD</i>	<i>Power Doppler</i>
<i>PIP</i>	<i>Proximal interphalangeal</i>
<i>PNGD</i>	<i>Palisaded neutrophilic granulomatous dermatitis</i>
<i>PSA</i>	<i>Psoriatic Arthritis</i>
<i>PTPN22</i>	<i>Protein tyrosine phosphatase non-receptor type 22</i>
<i>RA</i>	<i>Rheumatoid arthritis</i>
<i>RANKL</i>	<i>Receptor activator of nuclear factor κB ligand</i>
<i>RF</i>	<i>Rheumatoid factor</i>
<i>RND</i>	<i>Rheumatoid neutrophilic dermatosis</i>
<i>SAPHO</i>	<i>Synovitis, acne, pustulosis, hyperostosis, osteitis (SAPHO) syndrome</i>
<i>SC</i>	<i>Subcutaneous</i>
<i>SDAI</i>	<i>Simplified Disease Activity Index</i>
<i>SDAI</i>	<i>Simplified Disease Activity Index</i>
<i>sDMARDs</i>	<i>Synthetic chemical compounds</i>

List of Abbreviations (Cont...)

Abb.	Full term
<i>SE</i>	<i>Shared-epitope</i>
<i>SJC</i>	<i>Swollen joints count</i>
<i>SPA</i>	<i>Spondyloarthropathy</i>
<i>SPSS</i>	<i>Statistical package for social science</i>
<i>sSS</i>	<i>Secondary Sjögren's syndrome</i>
<i>STAT</i>	<i>Signal Transducer and Activator of Transcription</i>
<i>Th</i>	<i>T-helper cell</i>
<i>TJC</i>	<i>Tender joints count</i>
<i>TNF</i>	<i>Tumor necrosis factor</i>
<i>TNFAIP</i>	<i>Tumor Necrosis Factor, Alpha-Induced Protein</i>
<i>TRAF</i>	<i>TNF receptor-associated factor</i>
<i>ULN</i>	<i>upper limit of normal</i>
<i>US</i>	<i>Ultrasonography</i>
<i>VAS</i>	<i>Visual analogue scale</i>

INTRODUCTION

Rheumatoid arthritis (RA) is an autoimmune disease characterized by chronic inflammation of synovial tissue that leads to damage of cartilage and bone, resulting in irreversible joint destruction (*Smigielska-Czepiel et al., 2014*).

RA is also characterized by abnormal proliferation of synoviocytes, leukocyte infiltration, and angiogenesis (*Park et al., 2014*). Epidemiological studies show that RA affects 1% of the population worldwide (*Rojas-Villarraga et al., 2009*).

RA is typically a distal, symmetrical, small joint polyarthritis, most commonly involving the metacarpophalangeal (MCP) and proximal interphalangeal joints of the fingers (PIJ), interphalangeal joints of the thumbs, the wrists, and metatarsophalangeal joints of the toes (MTP). Other joints of the upper and lower limbs, such as the elbows, shoulders, ankles, and knees are also commonly affected. The involvement of temporo-mandibular and sterno-clavicular joint and cervical spine is relatively uncommon (*Smolen et al., 2016*).

Musculoskeletal manifestations include tenosynovitis (defined as inflammation of the tendon and its enveloping tendon sheath) and carpal tunnel syndrome (*Maini, 2003*).