



Assessment of Shoulder Pain in Rheumatoid Arthritis Patients by using High Resolution Musculoskeletal Ultrasound

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سَبِّحْكَ لَا إِلَهَ إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Contents

Title	Page No.
List of Tables	5
List of Figures	10
List of Abbreviations.....	12
Introduction.....	- 1 -
Aim of the Work	18
Review of Literature	
▪ Rheumatoid Arthritis	19
▪ Shoulder Pain	97
Subjects and Methods	115
Results	122
Discussion.....	173
Summary and Conclusion.....	180
Recommendations	183
References	184
Arabic Summary	

List of Tables

Table No.	Title	Page No.
Table (1):	Predictors of future development of rheumatoid arthritis in patients with recent onset arthritis	51
Table (2):	Criteria for the classification of rheumatoid arthritis	53
Table (3):	The 2010 American College of Rheumatology/ European League against Rheumatism classification criteria for rheumatoid arthritis	55
Table (4):	Laboratory and Imaging Findings Associated.....	61
Table (5):	RA Disease Activity Index.....	72
Table (6):	Differential Diagnosis of Rheumatoid Arthritis.....	75
Table (7):	DMARDs in RA:	83
Table (8):	Recommendation for optimal laboratory monitoring interval in patients with RA receiving DMARDs:	84
Table (9):	TNF- α blocking agents.....	87
Table (10):	Agents and doses:.....	89
Table (11):	Treatment recommendations for RA patients with high-risk comorbidities:	95
Table (12):	Causes of shoulder pain	103
Table (13):	Summary of clinical scenarios achieving mainly positive recommendations.....	108
Table (14):	Display of demographic characteristics and shoulder pain duration among (50) patients and (30) controls.....	122
Table (15):	Display of rheumatoid arthritis related variables among (50) patients.	124

List of Tables *cont...*

Table No.	Title	Page No.
Table (16):	Display of drug intake among (50) patients.	125
Table (17):	Display of laboratory data in (50) patients and (30) controls.....	127
Table (18):	Display of frequency of painful and non painful (100) shoulders of (50) patients.	128
Table (19):	Display of frequency of normal and abnormal (100) shoulders of (50) patients according to US findings.....	129
Table (20):	Display of X-ray findings among shoulders of patients and controls.	130
Table (21):	Display of abnormal US findings in biceptal tendon and sheath by US among (100) shoulders of (50) patients.	130
Table (22):	Display of abnormal US findings in sub- scapularis tendon among (100) shoulders of (50) patients.	131
Table (23):	Display of abnormal US findings in Supra- Spinatus tendon and muscle among (100) shoulders of (50) patients.	131
Table (24):	Display of abnormal US findings in Infra- Spinatus tendon and muscle among (100) shoulders of (50) patients.	132
Table (25):	Display of abnormal US findings in SASD and Subcoracoid Bursae among (100) shoulders of (50) patients.	132
Table (26):	Display of abnormal US findings in sub- acromion and sub-coracoid impingement among (100) shoulders of (50) patients.....	133
Table (27):	Display of abnormal US findings in humeral bone among (100)shoulders of (50) patients.....	133

List of Tables *cont...*

Table No.	Title	Page No.
Table (28):	Display of abnormal US findings in ACJ among (100) shoulders of (50) patients.	134
Table (29):	Display of abnormal US findings in GHJ among (100) shoulders of (50) patients.	134
Table (30):	Comparison between patients and controls regarding age, sex, duration of shoulder pain and body mass index.	135
Table (31):	Comparison between shoulders of patients and controls as regard presence of abnormal x-ray findings.	136
Table (32):	Comparison between shoulders of patients and controls as regard presence of biceps abnormal US findings.	137
Table (33):	Comparison between shoulders of patients and controls as regard presence of subscapularis abnormal US findings.	137
Table (34):	Comparison between shoulders of patients and controls as regard presence of supraspinatus abnormal US findings.	138
Table (35):	Comparison between shoulders of patients and controls as regard presence of infraspinatus abnormal US findings.	139
Table (36):	Comparison between shoulders of patients and controls as regard presence of bursa abnormal US findings.	140
Table (37):	Comparison between shoulders of patients and controls as regard presence of impingement abnormal US findings.	140
Table (38):	Comparison between shoulders of patients and controls as regard presence of humeral bone abnormal US findings.	141

List of Tables *cont...*

Table No.	Title	Page No.
Table (39):	Comparison between shoulders of patients and controls as regard presence of ACJ abnormal US findings.....	142
Table (40):	Comparison between shoulders of patients and controls as regard presence of GHJ abnormal US findings.....	143
Table (41):	Comparison between DAS-28 subgroups as regard age, BMI, disease duration, pain duration and lab investigation.....	145
Table (42):	Relation between biceps tendon and sheath US abnormalities and disease activity (DAS-28 subgroups).....	147
Table (43):	Relation between sub-scapularis tendon US abnormalities and disease activity (DAS-28 subgroups).....	148
Table (44):	Relation between supra-spinatus tendon and muscle US abnormalities and disease activity (DAS-28 subgroups).....	149
Table (45):	Relation between infra-spinatus tendon and muscle US abnormalities and disease activity (DAS-28 subgroups).....	150
Table (46):	Relation between SASD bursa and subcoracoid bursa US abnormalities and disease activity (DAS-28 subgroups).....	151
Table (47):	Relation between impingement US abnormalities and disease activity (DAS-28 subgroups).....	152
Table (48):	Relation between humeral bony US abnormalities and disease activity (DAS-28 subgroups).....	153
Table (49):	Relation between ACJ US abnormalities and disease activity (DAS-28 subgroups).	154

List of Tables *cont...*

Table No.	Title	Page No.
Table (50):	Relation between GHJ US abnormalities and disease activity (DAS-28 subgroups).	155
Table (51):	Relation between shoulder pain and biceps tendon and sheath abnormalities (by US) in RA patients.	156
Table (52):	Relation between shoulder pain and subscapularis tendon abnormalities (by US) in RA patients.	157
Table (53):	Relation between shoulder pain and supraspinatus tendon and muscle abnormalities (by US) in RA patients.....	158
Table (54):	Relation between shoulder pain and infraspinatus abnormalities (by US) in RA patients.....	159
Table (55):	Relation between shoulder pain and bursa abnormalities (by US) in RA patients.....	160
Table (56):	Relation between shoulder pain and impingement abnormalities (by US) in RA patients.....	161
Table (57):	Relation between shoulder pain and humeral bony abnormalities (by US) in RA patients.....	161
Table (58):	Relation between shoulder pain and ACJ abnormalities (by US) in RA patients.....	162
Table (59):	Relation between shoulder pain and GHJ abnormalities (by US) in RA patients.....	163
Table (60):	Correlation between disease duration and age, BMI, No. of tender and swollen joints, VAS, DAS28, pain duration, and labs.....	164

List of Figures

Fig. No.	Title	Page No.
Figure (1):	Adaptive and innate immune processes within the joint in RA.....	30
Figure (2):	RA activity in MCP joints	33
Figure (3):	Patient feet deformed by rheumatoid arthritis.....	35
Figure (4):	Ankle swelling in RA.....	35
Figure (5):	Cervical spines' deformities in RA.....	37
Figure (6):	Clinical organ system involvement of rheumatoid vasculitis.....	39
Figure (7):	Rheumatoid vasculitis leg ulcers	39
Figure (8):	Abnormalities of the shoulder in rheumatoid arthritis.....	63
Figure (9):	Rheumatoid arthritis of the ankle	64
Figure (10):	Rheumatoid arthritis of the hip joint	64
Figure (11):	Rheumatoid arthritis of the cervical spine.....	65
Figure (12):	US focal bone erosions in a patient with ERA	67
Figure (13):	MCP synovitis with power Doppler signal	68
Figure (14):	Algorithm based on the 2016 European League Against Rheumatism (EULAR) recommendations on rheumatoid arthritis (RA) management.....	85
Figure (15):	Mechanism of action of TNFi and non-TNFi biologics.....	92
Figure (16):	Mechanism of Action of Tofacitinib	93
Figure (17):	Tuberculosis (TB) screening algorithm for biologics or tofacitinib	94
Figure (18):	Muscles and nerves of shoulder.	99
Figure (19):	Sex ratio among cases and controls	123
Figure (20):	Percent of patients with disease activity.....	125
Figure (21):	Type of drugs taken by the RA patients.	126
Figure (22):	Frequency of painful and non painful shoulders of RA patients.	128

List of Figures cont...

Fig. No.	Title	Page No.
Figure (23):	X-ray findings among shoulders of RA patients and controls.....	136
Figure (24):	All US abnormalities which are higher in controls than cases	143
Figure (25):	All US abnormalities which are higher in cases than controls.	144
Figure (26):	Comparison between DAS28 score subgroups as regard age, ESR and serum creatinine.	146
Figure (27):	Significant US abnormalities between patients with moderate versus severe disease activity.	155
Figure (28):	Significant US abnormalities between patients with painful versus non painful shoulders.....	163
Figure (29):	42 years old female RA patient complains of bilateral shoulder pain for 1year	165
Figure (30):	57 years old female RA patient complains of bilateral shoulder pain for 7 months	166
Figure (31):	54 years old female RA patient complains of left shoulder pain for 2 weeks	167
Figure (32):	38 years old female RA patient complains of bilateral shoulder pain for 2 years.....	168
Figure (33):	39 years old female RA patient complains of bilateral shoulder pain for 1 year	169
Figure (34):	60 years old female RA patient complains of bilateral shoulder pain for 1 year	170
Figure (35):	53 years old female RA patient complains of right shoulder pain for 3 months	171
Figure (36):	58 years old female RA patient complains of bilateral shoulder pain for 2 weeks	172

List of Abbreviations

Abb.	Full term
<i>ACJ</i>	<i>Acromioclavicular joint</i>
<i>ACPA</i>	<i>Anti-Citrullinated protein antibodies.</i>
<i>ACR</i>	<i>American College of Rheumatology</i>
<i>ADAMTS</i>	<i>A disintegrin and metalloprotease with thrombospondin-1-like domains</i>
<i>AICAR</i>	<i>Aminoimidazole carboxamide ribonucleotide</i>
<i>ALT</i>	<i>Alanine transaminase</i>
<i>ANA</i>	<i>Antinuclear antibody</i>
<i>Anti-CCP</i>	<i>Anti-cyclic citrullinated peptide antibodies</i>
<i>Anti-MCV</i>	<i>Anti-mutated citrullinated vimentin</i>
<i>APCs</i>	<i>Antigen presenting cells</i>
<i>ARA</i>	<i>American Rheumatism Association</i>
<i>AST</i>	<i>Aspartate transaminase</i>
<i>bDMARDs</i>	<i>Biological Disease modifying antirheumatic drugs</i>
<i>BMI</i>	<i>Body mass index</i>
<i>bsDMARDs</i>	<i>Biosimilar Disease modifying antirheumatic drugs</i>
<i>BUN</i>	<i>Blood urea nitrogen</i>
<i>CBC</i>	<i>Complete blood count</i>
<i>CDAI</i>	<i>Clinical Disease Activity Index</i>
<i>CHD</i>	<i>Congestive heart failure</i>
<i>COX</i>	<i>Cyclooxygenase</i>
<i>CRP</i>	<i>C-reactive protein</i>
<i>csDMARDs</i>	<i>Conventional synthetic Disease modifying antirheumatic drugs</i>
<i>CT</i>	<i>Computed tomography</i>
<i>CTS</i>	<i>Carpal tunnel syndrome</i>
<i>DAMP</i>	<i>Damage-associated molecular pattern</i>
<i>DAS28</i>	<i>Disease Activity Score 28 joints</i>
<i>DIP</i>	<i>Distal interphalangeal</i>
<i>DKK1</i>	<i>Dickkopf-1</i>

List of Abbreviations cont...

Abb.	Full term
<i>DMARDs</i>	<i>Disease modifying antirheumatic drugs</i>
<i>EGA</i>	<i>Evaluator global assessment</i>
<i>ELISA</i>	<i>Enzyme-linked immunosorbent assay</i>
<i>EMA</i>	<i>European Medicines Agency</i>
<i>ERA</i>	<i>Early Rheumatoid Arthritis</i>
<i>ES</i>	<i>Erosion score</i>
<i>ESR</i>	<i>Erythrocyte sedimentation rate</i>
<i>ESSR</i>	<i>European society of musculoskeletal radiology</i>
<i>EULAR</i>	<i>European League Against Rheumatism</i>
<i>FcR</i>	<i>Fc receptor</i>
<i>FcεRI</i>	<i>High-affinity IgE receptor</i>
<i>FDA</i>	<i>Food and Drug Administration</i>
<i>FGF</i>	<i>Fibroblast growth factor</i>
<i>FLS</i>	<i>Fibroblast-like synoviocytes</i>
<i>GAS</i>	<i>Global arthritis score</i>
<i>GH</i>	<i>General health</i>
<i>GHJ</i>	<i>Glenohumeral joint</i>
<i>GM-CSF</i>	<i>Granulocyte / macrophage colony-stimulating factor</i>
<i>HA</i>	<i>Hyaluronan</i>
<i>HAQ</i>	<i>Health Assessment Questionnaire</i>
<i>HAQ-DI</i>	<i>Health Assessment Questionnaire Disability Index</i>
<i>HCQ</i>	<i>Hydroxychloroquine</i>
<i>HLA</i>	<i>Human leukocyte antigen</i>
<i>HRCT</i>	<i>High resolution Computed tomography</i>
<i>HRUS</i>	<i>High resolution ultrasonography</i>
<i>HSP</i>	<i>Heat-shock protein</i>
<i>IFNγ</i>	<i>Interferon-gamma</i>
<i>IGRA</i>	<i>Interferon gamma release assay</i>
<i>IL</i>	<i>Interleukin</i>
<i>ILD</i>	<i>Interstitial Lung Disease</i>

List of Abbreviations *cont...*

Abb.	Full term
<i>iNOS</i>	<i>Inducible nitric oxide synthetase</i>
<i>IP</i>	<i>Interphalangeal</i>
<i>IQR</i>	<i>Interquartile range</i>
<i>IV</i>	<i>Intravenous</i>
<i>JAK</i>	<i>Janus kinase</i>
<i>JSN</i>	<i>Joint space narrowing</i>
<i>LEF</i>	<i>Leflunomide</i>
<i>MCP</i>	<i>Metacarpophalangeal</i>
<i>MCP-1</i>	<i>Monocyte chemotactic protein-1</i>
<i>MMPs</i>	<i>Matrix metallo-proteases</i>
<i>MRI</i>	<i>Magnetic resonance imaging</i>
<i>MSUS</i>	<i>Musculoskeletal ultrasonography</i>
<i>MTP</i>	<i>Metatarsophalangeal</i>
<i>MTX</i>	<i>Methotrexate</i>
<i>NADPH</i>	<i>Nicotinamid adenine dinucleotide phosphate-oxidase</i>
<i>NF-κB</i>	<i>Nuclear factor kappa B</i>
<i>NLR</i>	<i>nucleotide-binding oligomerization domain-like receptor</i>
<i>NO</i>	<i>Nitric oxide</i>
<i>No</i>	<i>Number</i>
<i>NSAIDs</i>	<i>Non-steroidal anti-inflammatory drugs</i>
<i>OMERACT</i>	<i>Outcome measures in rheumatology</i>
<i>PADI</i>	<i>Peptidylarginine deiminase</i>
<i>PAMP</i>	<i>Pathogen-associated molecular pattern</i>
<i>PAR2</i>	<i>Protease-activated receptor 2</i>
<i>PD</i>	<i>Power Doppler</i>
<i>PDGF</i>	<i>platelet-derived growth factor</i>
<i>PGA</i>	<i>Patient Global Assessment</i>
<i>PGH2</i>	<i>Prostaglandin H2</i>
<i>PICO</i>	<i>Population, intervention, comparator, and outcomes</i>
<i>PIP</i>	<i>Proximal interphalangeal</i>

List of Abbreviations *cont...*

Abb.	Full term
<i>PT</i>	<i>Prothrombine time</i>
<i>QUEST-RA</i>	<i>Quantitative standard monitoring of patients with rheumatoid arthritis</i>
<i>RA</i>	<i>Rheumatoid arthritis</i>
<i>RANKL</i>	<i>Receptor activator of nuclear factor κB ligand</i>
<i>RBCs</i>	<i>Red blood cells</i>
<i>RF</i>	<i>Rheumatoid factor</i>
<i>ROM</i>	<i>Range of motion</i>
<i>ROS</i>	<i>Reactive oxygen species</i>
<i>SASD</i>	<i>Subacromial-subdeltoid</i>
<i>SC</i>	<i>Sub-cutaneous</i>
<i>SCr</i>	<i>Serum creatinine</i>
<i>SDAI</i>	<i>Simplified Disease Activity Index</i>
<i>SJC</i>	<i>Swollen joints count</i>
<i>SLE</i>	<i>Systemic lupus erythematosus</i>
<i>SPSS</i>	<i>Statistical package for social science</i>
<i>SSZ</i>	<i>Sulfasalazine</i>
<i>TB</i>	<i>Tuberculosis</i>
<i>TGF</i>	<i>Transforming growth factor</i>
<i>TGF-β</i>	<i>Transforming growth factor-beta</i>
<i>Th</i>	<i>T-helper cell</i>
<i>TJC</i>	<i>Tender joints count</i>
<i>TLR</i>	<i>Toll-like receptor</i>
<i>TMJ</i>	<i>The tempromandibular joint</i>
<i>TNF</i>	<i>Tumor necrosis factor</i>
<i>TS</i>	<i>Total score</i>
<i>tsDMARDs</i>	<i>Targeted synthetic Disease modifying antirheumatic drugs</i>
<i>TST</i>	<i>Tuberculin skin test</i>
<i>US</i>	<i>Ultrasonography</i>
<i>VAS</i>	<i>Visual analogue scale</i>
<i>VEGF</i>	<i>Vascular endothelial growth factor</i>
<i>WBCs</i>	<i>White blood cells</i>