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YOUNG VERSUS LATE-ONSET RHEUMATOID ARTHRITIS: A PROSPECTIVE 12 MONTH-FOLLOW-UP COHORT STUDY IN AN EARLY ARTHRITIS COHORT

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Background: Rheumatoid Arthritis (RA) is a chronic inflammatory arthropathy that can present at any age. Data regarding differences in the clinical course and outcome in Late-Onset Rheumatoid Arthritis (LORA) comparing to Young-Onset RA (YORA) are conflicting. Some studies suggested that LORA may represent a more benign form of RA (1), while others have shown a poorer prognosis in these patients (2,3). Only a few publications have included patients with early disease (3).

Objectives: To compare demographic and clinical features between LORA and YORA patients, and clinical activity at baseline and after 12 months of initial therapy, in patients with early disease.

Methods: We conducted a prospective cohort study of 12 months of follow-up based on an early arthritis clinic. Consecutive patients with early RA – less than 12 months duration – fulfilling ACR/EULAR 2010 and/or ACR 1987 RA classification criteria, were included and classified in LORA (disease onset ≥60 years) and YORA groups. Variables were collected from patients' registries at first appointment after symptoms onset and after 12 months of treatment, according to a treat-to-target strategy. Independent t-test and chi-square test were performed to compare variables between groups.

Results: We included 72 patients (40 (55.6%) YORA; 32 (44.4%) LORA), mean age at diagnosis 44.9±1.78 and 72.5±1.34 years, respectively. In LORA group, the symptoms duration at first observation was shorter (17.0±2.26 vs. 23.8±2.45 weeks; p=0.046) and rheumatoid factor (RF)/ anti-citrullinated protein antibodies (ACPA) positivity was lower (28.1% vs 65.0%; p= 0.002; 31.3% vs 72.5%; p<0.001). At baseline, LORA had higher mean number of tender joints (9.76±1.29 vs 6.50±0.67; p=0.021), erythrocyte sedimentation rate (ESR) (45.7±4.98 vs. 29.3±3.74; p=0.011), C-reactive protein (CRP) (4.63±0.91 vs 2.22±0.46; p=0.022) and disease activity using DAS28-3V (5.11±0.28 vs 4.42±0.19; p=0.046), CDAI (33.7±3.39 vs 23.6±2.18; p=0.015) and SDAI (37.4±3.43 vs 26.3±2.57; p=0.015). At the end of follow-up, there were no statistically significant differences between LORA and YORA groups regarding treatment, disease activity and patient-reported outcomes at 12 months (Table 1).

Table 1. Clinical variables assessment at 12 months of follow-up.

	EORA	YORA	p-value
Treatment, % users			
Corticosteroids	93.3	97.4	p= 0.576
Methotrexate	76.7	74.4	p=0.825
Hydroxychloroquine	43.3	46.2	p= 0.815
Sulfasalazine	10.0	15.4	p=0.722
Leflunomide	3.30	5.10	p=1.000
TNF blockers	3.30	5.10	p=0.717
DAS28-3V, mean (SD)	1.99±0.15	2.22±0.15	p=0.286
SDAI, mean (SD)	4.64±1.35	7.68±1.39	p=0.128
CDAI, mean (SD)	4.15±1.17	6.56±1.32	p=0.180
Swollen joints, mean (SD)	1.29±0.49	1.03±0.25	p=0.613
Tender joints, mean (SD)	0.32±0.13	1.28±0.53	p=0.084
ESR, mean (SD)	10.6±1.79	9.43±1.14	p=0.585
CRP, mean (SD)	0.44±0.09	0.50±0.15	p=0.730
PtGA, mean (SD)	21.8±5.90	29.2±6.11	p=0.387
PhGA, mean (SD)	10.6±3.26	13.1±3.11	p= 0.593
Pain intensity (VAS), mean (SD)	20.7±5.82	32.7±6.30	p=0.169
HAQ, mean (SD)	0.23±0.089	0.54±0.13	p=0.060

Legend: DMARD- disease-modifying anti-rheumatic drug; TNF- tumoral necrosis factor; SDAI-simplified disease activity score; CDAI- clinical disease activity score; PtGA/ PhGA – patient's/ physician's global assessment of general health; VAS- visual analogic scale; HAQ- health assessment questionnaire.

Conclusion: LORA patients presented with higher disease activity manifested by higher joint counts and laboratory inflammatory markers but lower RF and ACPA positivity proportion. Despite the more aggressive clinical presentation, the clinical and functional outcomes at 12 months were similar between LORA and YORA patients.

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A RELIABILITY EXERCISE USING CONSENSUAL DEFINITIONS FOR THE ULTRASONOGRAPHY OF THE SHOULDER IN RHEUMATOID ARTHRITIS

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Background: Although numerous clinical tests for the diagnosis of painful shoulder are available, differentiating articular from periarticular lesions may be difficult in daily practice. Fortunately, the precise diagnosis of shoulder pain in RA benefited from a reliable imaging modality to detect its exact origin as ultrasonography (US).

Objectives: This study aimed to assess the intraobserver and interobserver reliabilities of the ultrasonographic findings for patients with established RA having shoulder pain in a patient-based exercise among maghrebian rheumatologists experts on US.

Methods: A total of 7 operators examined 10 patients in 2 rounds independently and blindly of each other.

Each patient underwent a US scanning of the painful shoulder in four sites based on US technical guidelines of the European society of musculoskeletal radiology: long head of Biceps (LHB), subscapularis recess, posterior recess and axillary recess. The presence of a subdeltoid or subcoracoid bursitis or the presence of transfixant tear of the supraspinatus were notified if present. Intra and inter-observer reliabilities were calculated.

Results: Intraobserver reliability was excellent for GS synovitis in subscapularis and posterior recesses (k=0.91 for both) and for subcoracoid bursitis (k=0.81). It was good in case of presence of a subdeltoid bursitis (k=0.79), transfixant tear of the supraspinatus (k=0.65), GS synovitis and effusion in LHB (k=0.67 and 0.6 respectively) and subdeltoid bursitis (k= 0.79). Interobserver reliability was good for PD for LHB signals searched longitudinally (k=0.78) and transversally (k=0.78). It was moderate for GS for LHB synovitis (k=0.55). Interobserver agreement was poor for effusion and GS synovitis for subscapularis, posterior and axillary recesses. It was very poor and/or absent for PD signals in these recesses.

Conclusion: US is a reliable imaging tool for shoulder in RA especially with regard to LHB effusion, GS and PD synovitis. Interobserver reliability of subscapularis, posterior and axillary recesses could be optimized by standardization of sites to assess.

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RELATIONSHIP BETWEEN IMPAIRED MELATONIN SECRETION AND DURATION, RADIOLOGICAL STAGE AND PHYSICAL ACTIVITY OF RHEUMATOID ARTHRITIS

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Background: There is a close relationship between the development of severe autoimmune diseases and disorders of the neuroendocrine immune regulation of the body [1]. The role of melatonin as the main mediator of neuroendocrine-immune interactions in rheumatoid arthritis (RA) remains poorly understood [2].

Objectives: The aim of the study was to determine the daily serum melatonin profile of RA patients with different duration of the disease, radiological stage and physical activity.

Methods: The daily serum melatonin profile of patients with active RA (n=105, mean age 49.8±12.6 years, 75.5% of women) was compared with that of healthy subjects from the general population (n=30). In addition, we investigated daily serum melatonin secretion in relation to duration of the disease, radiological progression and physical activity (HAQ). Patients were divided into 4 groups depending on the RA duration (mean 8.4±6.6 years): 1st group - up to 2 years (n=12), 2nd group - 2-5 years (n=37), 3rd group - 6-10 years (n=26), 4th group - more than 10 years (n=30). Depending on the radiological progression, patients were divided into stages: 1st stage (n=16), 2nd stage (n=64), 3rd stage (n=25). Melatonin serum levels was determined by the enzyme immunoassay at 8 and 20 o'clock. For statistical analysis were used the Man - Whitney test and the Spearman rank correlation method.