immunohistochemical study of bone marrow biopsy specimens for the presence of LGL invasion studies, as well as the study of 4 spleens after splenectomy. SS was diagnosed in 8 out of 18 pts (44.5%) according ACR 2016 criteria.

Results: Twelve (66.6%) of 18 pts with RA, neutropenia and splenomegaly were diagnosed with T-LGLL, the patients were divided in 2 groups: FS (6 pts) and RA+T-LGLL (12 pts). Pts with FS debuted with arthritis of small hand joints, extremely rarely with extra-articular manifestations, mainly at a young age (36.5 ± 3.9 years), and developed neutropenia after 10 years of RA. Pts with T-LGLL debuted at a younger age (39.5 ± 4.5 and 51.5 ± 7.8 years, respectively), had a longer course of RA before the development of neutropenia (14.3 ± 3.3 and 5 ± 1.5 years, respectively, $p=0.03$), and more often had extra-articular manifestations at the onset of the disease. RA activity did not differ between groups and in most cases was characterized by a mild course of articular syndrome. Though the course of RA+T-LGLL group was characterized by low (50%) and moderate (33%) DAS28-CRP activity and active synovitis in only 41.5% of pts, severe joint deformities (stage III and IV) developed in 58.5% of pts. Pts with T-LGLL showed a higher incidence of hepatomegaly (75% and 16.5%, respectively, $p=0.02$) and more severe neutropenia ($p=0.02$). The development of severe leukopenia ($<1 \times 10^9$) and massive hepatosplenomegaly was observed only in pts with T-LGLL, which required splenectomy in 4 cases. SS was more often detected in the FS group than in the RA+T-LGLL group (83.5% and 25%, respectively, $p=0.02$).

Conclusion: Clinical and laboratory manifestations of FS and T-LGLL are extremely close, therefore, pts who are diagnosed with FS should be examined to exclude T-LGLL.

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AB0184

SCREENING FOR DEPRESSION IN A GROUP OF TUNISIAN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Depression is thought to be common comorbidity in patients with rheumatoid arthritis (RA), which is one of the most frequent chronic inflammatory diseases.

Objectives: This study aimed to screen for depression in RA patients, and study its relation to social and clinical parameters, as well as disease activity.

Methods: Single-center cross-sectional study, involving patients with RA, according to ACR/EULAR criteria 2010, using the original Beck Depression Inventory (BDI) as a screening tool for depression: measures of 0–9 indicated that a patient was not depressed, 10–18 indicated mild to moderate depression, 19–29 indicated moderate to severe depression and 30–63 indicated severe depression.

Results: Sixty-five patients were included (57 F / 8 M). The average age was 55 years [23-73]. The mean duration of the disease was 11.75 years [1-25]. Half of the patients had precarious socioeconomic conditions and no social security. Forty-two patients were unemployed. Seventeen percent of them experienced grief by losing a close family member. Both rheumatoid factor and anti-citrullinated peptides antibodies were positive in 83.1 % of cases. RA was erosive in 78.5% of cases, and deformed in 21.5 % of cases. Almost half of the patients (52.3 %) were followed for at least another chronic disease. Forty-eight percent of patients were on Methotrexate with an average weekly dose of 15.3mg/week [10-22.5], 10% on Leflunomide, 10% on Sulfasalazine, and 45% on biotherapy. The analysis of BDI scores showed that 64.6 % of patients suffered from depression: mild to moderate in 35.4 % of cases, moderate to severe in 21.5% of cases and severe in 7.7% of cases. Depression was significantly associated with precarious socioeconomic conditions ($p=0.018$). A correlation between the BDI score and the Disease Activity Score (DAS28) as well as the Health Assessment Questionnaire was noted ($p=0.045$ and $p=0.02$, respectively). There were no statistically significant associations with the other studied data.

Conclusion: Depression was frequent among RA patients. Our study suggests that better control of the disease may reduce the incidence of depression within this group of patients.

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AB0185

ULTRASOUND IN INFLAMMATORY ARTHRALGIA: SHOULD WE ALWAYS SCAN?

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Background: Patients with inflammatory arthralgia (IA) are considered to be at increased risk for progression to RA. Ultrasound (US) has shown high sensitivity to detect synovitis compared with physical examination. Thus, US is recommended to identify subclinical synovitis in patients without clinical signs of inflammation.

Objectives: To determine the frequency and pattern of US detected active inflammation in patients with IA and investigate factors contributing to predict this outcome.

Methods: An US clinic is scheduled in an academic center running twice every week. A retrospective analysis of our US unit cohort during a period of 12 months was undertaken. Patients with IA and no previous diagnosis of inflammatory arthropathies were included for analysis. Inclusion criteria of IA definition included: severe symptoms presenting in the morning, duration of morning stiffness ≥ 60 min, symptoms predominantly located in MCP joints and absence of clinically detected synovitis by the referral rheumatologist. The following routinely collected variables were included in the analysis: demographics, clinical features and laboratory tests. Patients underwent bilateral US examination of hands and/or feet according to the European League Against Rheumatism (EULAR) guidelines. The presence of synovitis and tenosynovitis was assessed on a semi quantitative scale (0–3) for Grey Scale (GS)/Power Doppler (PD). Active inflammation was defined as PD synovitis and/or tenosynovitis >1 at any location. First, differences between groups were tested using chi-squared/Fisher and Student-t tests in the univariate analysis. Second, multivariate logistic regression models were employed to investigate the association between possible predictive factors of US active inflammation.

Results: A total of 110 patients were included in the analysis. Mean age was 53.6 ± 15.6 years, 80 (72.7%) were females, and mean symptoms duration was 11.7 ± 9.9 months (Table1). A total of 76 (69.1%) patients presented with a polyarticular arthralgia pattern. US active inflammation were present in 38 (34.5%) patients (28.2% showed PD synovitis and 19.1% PD tenosynovitis). Hands were most commonly involved with PD synovitis at wrists in 18.2% and at MCP in 14.5% of patients. For PD tenosynovitis, the flexor MCP 2-5 (4.5%) and 6th extensor tenosynovitis (5.5 %) were the most frequent affected locations. Only 9 (8.2%) patients had erosions in hands and/or feet at baseline examination. In the univariate analysis, the higher ESR values, the shorter time from symptoms onset and the presence of ACPA were significantly associated with the presence of US active inflammation ($p<0.001$, $p=0.035$ and $p=0.01$, respectively). In the multivariate analysis, only ACPA and ESR values ($OR=1.0003$; 95%CI 1,000-1,006 and $OR=1.054$; 95%CI 1.016-1.094), remained significantly associated with the detection of US active inflammation.

Conclusion: US features of active inflammation are found in 1 over 3 patients with IA being PD synovitis the most common finding, specially at the wrists and MCP joints. Higher ESR and ACPA values are significantly associated with the presence of US active inflammation. Thus, we strongly recommend the use of PD US to detect subclinical inflammation in at-risk patients with IA with no sign of inflammation on clinical examination, especially those with high ESR and ACPA values.

Table 1. Baseline characteristics of patients with IA

	Total n= 110	US inflammatory findings n= 38 (34.5%)	Non-US inflammatory findings n=72 (65.5%)	p
Age	53.6 ± 15.6	57.2 ± 16.2	51.6 ± 13.4	0.071
Sex				
Female	80 (72.7%)	26 (68.4%)	54 (75%)	0.461
Smoking				
Non smoker	45 (51.7%)	12 (44.4%)	33 (55%)	0.412
Smoker	34 (39.1%)	11 (40.7%)	23 (38.3%)	
Former smoker	8 (9.2%)	4 (14.8%)	4 (6.7%)	
Extension				
Monoarticular	12 (10.9%)	6 (15.8%)	6 (8.3%)	0.176
Oligoarticular	22 (20%)	10 (26.3%)	12 (16.7%)	
Polyarticular	76 (69.1%)	22 (57.9%)	54 (75%)	
Time (months)	11.7 ± 9.9	9.1 ± 8.1	13 ± 10.5	0.035
from symptoms onset				
ESR (mm/h) n=45	24.7 ± 18.2	33.1 ± 21.8	20.3 ± 14.4	<0.001
RF (IU/mL) n=53	39.1 ± 230.5	28.5 ± 56	45.1 ± 286.1	0.647
ACPA (IU/mL) n=56	98.1 ± 331.2	209.4 ± 488.4	26 ± 125.2	0.01

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AB0186

AT WHAT LEVEL SHOULD WE MEASURE INTIMA-MEDIA THICKNESS IN RHEUMATOID ARTHRITIS?

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Background: Rheumatoid arthritis (RA) is chronic inflammatory rheumatism characterized by an independent cardiovascular (CV) risk. The screening of carotid intima-media thickness (IMT) in the common carotid artery appears to be a marker of atherosclerosis and is used as a specific tool for CV risk assessment. **Objectives:** The main of this study was to determine the most associated US sites with CV risk in RA.

Methods: The present study is a prospective study conducted on Tunisian RA patients in rheumatology department of Mohamed Kassab University Hospital (March and December 2020). The characteristics of the patients and those of the disease were collected. The measurement of cIMT was done using high-resolution B-mode carotid US with a Philips machine with the patient in supine position, according to American Society of Echocardiography guidelines. The carotid bulb below its bifurcation and the internal and external carotid arteries were evaluated bilaterally with gray scale, spectral and color Doppler ultra-sonography using proprietary software for carotid artery measurements. IMT was measured using the two inner layers of the common carotid artery and an increased IMT was defined as ≥ 0.9 mm. The CV risk at 10 years was calculated by the SCORE index.

Results: Forty-seven patients were collected, of which 78.7% were women. The mean age was 52.5 ± 11.06 years. The rheumatoid factor (RF) was positive in 57.8% of cases, and anti-citrullinated peptide antibodies (ACPA) were positive in 62.2% of cases. RA was erosive in 81.6% of cases. Hypertension (hypertension) was present in 14.9% of patients and diabetes in 12.8% of patients. Nine patients were active smokers. The mean IMT in the left common carotid (LCC) was 0.069 ± 0.015 , in the left internal carotid (LIC) was 0.069 ± 0.015 , in the left external carotid (LEC) was 0.060 ± 0.023 . The mean IMT was 0.068 ± 0.01 in the right common carotid (RCC), 0.062 ± 0.02 in the right internal carotid (RIC), and 0.060 ± 0.016 in the right external carotid (REC). The mean SCORE index of CV risk was 2 ± 2.81 [0–11.6]. CV risk was significantly associated with the IMTs for LIC ($p=0.029$; $r=0.374$), LEC ($p=0.04$; $r=0.480$), and REC ($p=0.016$; $r=0.408$). No association was found between the IMT in the LCC ($p=0.361$; $r=0.162$), neither in the RCC ($p=0.438$; $r=0.140$) nor the RIC ($p=0.670$; $r=0.077$).

Conclusion: In our study, IMT is strongly associated with score index, especially in carotid bifurcation. However, IMT measured in common carotid does not reflect a cardiovascular risk at 10-years.

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AB0187

PREVALENCE, RISK FACTORS, AND TREATMENT MODALITIES OF ATLANTOAXIAL DISLOCATION IN RHEUMATOID ARTHRITIS

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Background: Cervical spine involvement is common in patients with rheumatoid arthritis (RA). The most common abnormality is atlantoaxial dislocation (AAD). It may lead to severe neurological symptoms and even death. Currently, there is a lack of consensus on the best approach to treatment.

Objectives: We investigated the prevalence of and risk factors for AAD in patients with RA, as well as its relationship to treatment modalities.

Methods: We conducted a cross-sectional study including 224 patients with RA. All patients fulfilled the 2010 American College of Rheumatology/European League Against Rheumatism RA classification criteria. Radiographs of the cervical spine included lateral views taken in flexion, extension, neutral position of the neck, anteroposterior and odontoid projection view. Patients were divided into two groups: (G1) a group with AAD and (G2) without AAD. We compared clinical, radiological, and laboratory findings between the two groups, as well as the treatments used: Steroid therapy, classic and biologic disease-modifying anti-rheumatic drugs (DMARDs). Structural joint damage was assessed with the Sharp/van der Heijde radiographic method. Functional impairment was assessed using the Health Assessment Questionnaire (HAQ). We used Statistical Package for Social Sciences (SPSS) 22.0 to analyze the results. The level of statistical significance was set at 0.05.

Results: ADD was present in 16% of the cases ($n=36$). Female predominance was noted, with a sex ratio of 0.25 ($p=0.530$). The mean age was 58 ± 12 years, with no significant difference between groups ($p=0.146$). The mean disease duration was significantly higher in G1 (11.5 ± 10.5 years versus 5.9 ± 6.3 , $p=0.004$). A noticeable relationship between AAD and immunopositivity was found: rheumatoid factor (RF) was present in 86.1% of the cases in G1 versus 67.5% in G2 ($p=0.025$). Anti-citrullinated protein antibodies (ACPA) were present in 86.1% of the cases in G1 versus 64.8% in G2 ($p=0.012$). We found a significant difference between AAD and disease activity assessed by DAS28-VS (5.8 ± 1.3 in G1 versus 5.3 ± 1.6 in G2, $p=0.027$). AAD was significantly associated with more structural joint damage: erosions (121.1 ± 60.9 in G1 versus 61.8 ± 56.5 in G2, $p<10^{-3}$), joints space narrowing (77.4 ± 47.4 in G1 versus 38.7 ± 40 in G2, $p<10^{-3}$), Sharp/van der Heijde radiographic score (190.2 ± 103.1 in G1 versus 100.1 ± 90.6 in G2, $p<10^{-3}$). Hip involvement was more frequent in G1 (22.2% versus 9.4% in G2, $p=0.038$).

HAQ score was higher in G1 (1.8 ± 0.7 versus 1.2 ± 1 , $p=0.002$).

Seventy-five percent of patients in G1 had received methotrexate versus 82.3% in G2 ($p=0.301$). The mean duration of methotrexate therapy was longer in G1 (24.6 ± 23.5 versus 18 ± 24 months, $p=0.015$). G1 patients received a higher mean dose and cumulative dose of methotrexate: 13.2 ± 3.5 g/week versus 11.8 ± 4.4 g/week ($p=0.048$), and 6.5 ± 6.8 versus 4.8 ± 8.5 ($p=0.025$), respectively.

Thirty-five percent of patients in G1 had received corticosteroids versus 25% in G2 ($p=0.217$). Patients in G1 had a significantly longer duration of steroid therapy: 17.8 ± 20.2 versus 13.3 ± 24.3 months ($p=0.22$). The mean dose of corticosteroids was similar between the two groups: 6.9 ± 4.3 mg/day versus 5.7 ± 4.6 mg/day ($p=0.132$). The total cumulative dose was significantly higher in G1: 6.5 ± 6.8 mg/day versus 4.8 ± 8.5 mg/day ($p=0.025$). There was no significant difference in using other DMARDs: Sulfasalazine ($p=0.182$) and leflunomide ($p=0.276$).

No significant difference was observed with patients under biologic DMARDs: 24.1% in G1 versus 17% in G2 ($p=0.725$).

Conclusion: Cervical spine involvement is common in RA and may be asymptomatic. Immunopositive patients seem to have more frequently ADD, as well as those with high disease activity and severe structural joint damage. The treatment modalities do not appear to be affected by AAD; however, patients with ADD seem to have higher cumulative doses of corticosteroids and methotrexate. Given the cross-sectional nature of our study, it is difficult to confirm the connection between the two. Further studies are needed.

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AB0188

DO PATIENT-REPORTED OUTCOMES IN RHEUMATOID ARTHRITIS REFLECT DISEASE ACTIVITY?

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Background: Patient-reported outcomes (PROs) reflect the patient's perspective and are used in rheumatoid arthritis (RA) routine clinical practice. However, PROs may be associated with other aspects of health, such as psychological distress or comorbidities, which leads to situations of discordance with objective RA assessments.

Objectives: The aim of this study was to determine whether PROs were associated with objective assessment of disease activity.

Methods: We conducted a cross-sectional study including patients with RA (ACR/EULAR 2010). Demographic data were collected. The following PROs were assessed: number of nocturnal awakenings, morning stiffness duration, estimation of spontaneous pain and fatigue by Visual Analog Scale (VAS), and global patient assessment (GPA). In addition, patients rated their current satisfaction with their disease state according to the Austrian school mark system (PATASAT: 1=excellent, 2=good, 3=average, 4=moderate (fair), 5=unsatisfactory). Disease activity was assessed using the 28-joint disease activity score with erythrocyte sedimentation rate (DAS28 ESR) and C reactive protein (DAS28 CRP). We used Cohen's kappa (κ) to determine the agreement between PATASAT and DAS28 ESR. The κ result was interpreted as follows: values ≤ 0 as indicating no agreement and 0.01–0.20 as none to slight, 0.21–0.40 as fair, 0.41–0.60 as moderate, 0.61–0.80 as substantial, and 0.81–1.00 as almost perfect agreement. A p-value inferior to 0.05 was considered significant.

Results: We included 54 patients (45 women and nine men) with a mean age of 55 ± 11 years old [23–69]. The mean disease duration was 9.9 ± 5.9 years [0–20]. The mean number of nocturnal awakenings was 1.1 [0–4] and the mean morning stiffness duration was 25.1 minutes [0–120]. The mean GPA was 5.3 ± 2.2 cm [0–10]. The mean pain VAS was 5.4 ± 2.2 cm [0–10] and the mean fatigue VAS was 4 ± 2.5 cm [0–8]. None of the patients described his disease state as 'excellent'. It was considered 'good' in 23.1% of cases, 'average' in 36.5% of cases, and 'moderate' to 'unsatisfactory' in 40.4% of cases.