AB0181

EXPLORING THE ROLE OF IL-6 BLOCKADE IN PATIENTS WITH ACTIVE RHEUMATOID ARTHRITIS AND CHRONIC PERIODONTITIS

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Background: Recent data have renewed the interest in common pathobiologic pathways in autoimmune rheumatic conditions and periodontal disease, especially on dual impact of innovative anti-rheumatic drugs in modulating both inflammatory and immune articular as well as periodontal damage. Although consistent data about TNF inhibitors and chronic periodontitis are already published, the influence of IL-6 blockade.

Objectives: We aimed to explore the influence of weekly subcutaneously IL-6 receptor inhibitor tocilizumab on periodontal health in a local cohort of patients with rheumatoid arthritis (RA) and chronic periodontitis (PD).

Methods: We performed a prospective longitudinal 6 months study in 68 patients with moderate-to-severe RA starting tocilizumab (TCZ) in accordance to local recommendations. Extensive rheumatologic (clinical activity, inflammatory, serological biomarkers) and dental (plaque index PI, gingival index GI, bleeding on probing BOP, pocket probing depth PPD, clinical attachment level CAL) assessments were done. Changes in RA activity and periodontal status were reassessed after 3 and 6 months.

Results: 51 RA and concomitant t of 68 patients in our initial cohort were finally analyzed. Aggressive periodontal disease was reported particularly in disease subsets with excessive inflammatory (serum C reactive protein level) and serologic biomarkers (anti-citrullinated peptide antibodies ACPA). Furthermore, significant correlations between periodontal status, clinical disease activity and ACPA levels were also demonstrated ($p < 0.05$). We also noticed consistent improvement was noticed in both RA-related parameters and periodontal inflammation (GI and sites with bleeding of probing) after only 3 months ($p < 0.05$), while PPD improved after 6 months; overall, CAL presented only slight changes without statistical any significance as well as teeth count and plaque levels ($p > 0.05$).

Conclusion: IL-6 inhibition is able to improve periodontal outcomes in patients with RA and concomitant PD, essentially related to dramatic decrease in serum inflammatory mediators.

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AB0182

HEMOGLOBIN RATE AS A PREDICTOR OF SUBCLINICAL LEFT VENTRICULAR SYSTOLIC DYSFUNCTION IN RHEUMATOID ARTHRITIS

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Background: The role of rheumatoid arthritis as an ischemic heart disease and heart failure risk factor is well acknowledged even if the physiopathological pathways are still debated. The effect of anemia on myocardial deformation has already been established and a hemoglobin level below 9g/dL was associated

with a significantly lower global longitudinal strain (GLS) patients with no history of CVD or chronic inflammatory diseases.[1]

Objectives: In the present study, we looked into the effect of anemia and hemoglobin on the myocardial impairment in RA patients.

Methods: We conducted a monocentric cross-sectional study between march 2019 and september 2019 on 36 RA patients without any history of cardiovascular disease and non-altered left ventricular ejection fraction in the outpatient population of the rheumatology department of the military hospital of Tunis matched with 36 healthy control subjects. Both groups underwent conventional echocardiography and STE to measure GLS; subclinical left ventricular systolic dysfunction was defined as a GLS $> -18\%$, and a complete blood cell count; anemia was defined as Hemoglobin levels < 12 g/dL for women and < 13 g/dL for men.

Results: Myocardial deformation study revealed that rheumatoid arthritis patients had a significantly worse GLS than healthy controls ($18.99 \pm 2.81\%$ vs $20.42 \pm 1.33\%$; $P = .015$). We also observed that third of the RA patients had subclinical left ventricular systolic dysfunction.

In our report 36% of RA patients were anemic. In our univariate analysis anemia was found to be significantly correlated with GLS ($r = -0.368$, $P = .027$) and hemoglobin was found to be the best predictor of subclinical LVSD in our ROC curve analysis (AUC=0.752, 95% CI: 0.577-0.927, $P = .02$). In our multivariate analysis anemia was the only factor that was independently related to subclinical LVSD (OR: 11.39, 95% CI: 1.57-82.89, $P = .016$).

Figure 1. ROC curve analysis for Hemoglobin as a predictor of subclinical left ventricular systolic dysfunction

Conclusion: To our knowledge, this is the first study to look into the relationship between GLS and anemia among RA patients, and now it is safe to say that anemia is yet another added burden on the myocardial function in RA patients that needs to be taken into account when discussing therapeutic action.

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AB0183

T-CELL LARGE GRANULAR LYMPHOCYTE LEUKEMIA IN PATIENTS WITH FELTY'S SYNDROME

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Background: Felty's syndrome (FS) is a rare subtype of seropositive rheumatoid arthritis (RA) and is characterized by neutropenia and splenomegaly. Some researchers suggest that FS and T-cell large granular leukemia (T-LGLL) may have common pathogenetic relationships [1].

Objectives: to characterize the clinical and laboratory manifestations of FS, to evaluate the frequency of T-LGLL and Sjogren's syndrome (SS) in this group of patients with RA, neutropenia and splenomegaly (pts).

Methods: We observed 18 pts with ACRP-positive (100%) and RF-positive (94.5%) RA diagnosed according to ACR 2010 criteria, who also had neutropenia and hepatosplenomegaly. All 18 pts underwent T-LGLL diagnostics using blood smears and phenotyping of peripheral lymphocytes for the presence of granular lymphocytes, determination of T-cell clonality using the rearrangement of the γ -chain of the T-cell receptor of lymphocytes by PCR, histological/

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 / 8M). 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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