REFERENCES

none

Disclosure of Interests: None declared**DOI:** 10.1136/annrheumdis-2019-eular.3829**AB0300 LIVER DISORDERS DURING RHEUMATOID ARTHRITIS**

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Background: Hepatic disease in rheumatoid arthritis (RA) are rare, but can be impactful for patients. Though some hepatic manifestations are directly related to RA, whereas others may be sequelae of treatment or caused by concomitant autoimmune diseases.

Objectives: We have tried through this study to focus on the liver disorders during the monitoring of rheumatoid arthritis and to identify the different etiologies.

Methods: This is a retrospective descriptive study of patients with rheumatoid arthritis (ACR-EULAR 2010 criteria) followed a rheumatology department between 2012 and 2018 with liver function disorder. We have specified the epidemiological, clinical, biological and therapeutic characteristics and the different explorations carried out for these patients.

Results: We included 61 patients in our study (3 men and 58 women). Mean age was 52.13 years [26-82]. Average duration of RA was 9.2 years [0.5-30]. Mean DAS28 was 5.95 [3-8.33]. RA was immunopositive in 88.5% of the cases and erosive in 93.44% of the cases. Most of patients received symptomatic treatment (98% paracetamol, 87% non-steroidal anti-inflammatory drugs, 84% corticosteroids). As for conventional csDMARD, 72% of patients were treated with methotrexate, 8.2% with anti-malarial, 22.95% with salazopyrine and 11.47% with leflunomide. Three patients received biologic DMARDs (1 rituximab and 2 TNF-Blockers).

Hepatic disorders were: cholestasis (95%), cytotoxicity (33%) and concomitant cytotoxicity and cholestasis (28%). The etiological investigation undertaken linked these disorders of the liver function disorders to the RA treatment in 50% of the cases. Methotrexate was incriminated in the genesis of this liver enzyme abnormalities in 14 cases, the salazopyrine in 2 cases, the leflunomide in 1 case, paracetamol and nonsteroidal anti-inflammatory drugs in 11 cases and rituximab in 1 case. Hepatic immunological investigation was negative in all cases. We have not noted any hepatitis B seroconversion. Two patients had hepatitis C. One patient presented active hepatitis C serology with signs of fibrosis (A2F2) at the liver biopsy puncture. Abdominal ultrasound showed signs of non-alcoholic fatty liver disease in 34.42% of cases. The biopsy puncture of the liver was performed in 9 patients showing chronic hepatitis lesions (n=1), hepatic atrophy (n=1), steatosis with portal and peri-sinus fibrosis (n=1). The etiological investigation was negative in 10% of cases.

Conclusion: In our study, the liver function disorders during RA are in half of the cases of iatrogenic origin. This requires rigorous monitoring of patients followed for RA in order to improve their management.

Disclosure of Interests: None declared**DOI:** 10.1136/annrheumdis-2019-eular.6117**AB0301 ANTIMICROBIAL USE IS HIGH IN PATIENTS WITH INFLAMMATORY ARTHRITIDES, AND FURTHER INCREASES WITH FIRST-LINE TNFI THERAPY – NATIONWIDE RESULTS**

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Background: Infections are well-known adverse effects of tumor necrosis factor inhibitors (TNFi) and increased hospitalization rates due to infections have also been reported. To our knowledge, this is the first study to report the effect of TNFi initiation on outpatient antimicrobial prescription patterns.

Objectives: To investigate the use of antimicrobial agents (antibacterials, antifungals and antivirals; excluding antimycobacterials) in patients with rheumatoid arthritis, psoriatic arthritis, and axial spondyloarthritis in relation to the initiation of the first TNFi in biologic-naïve patients.

Methods: All patients with inflammatory arthritides who are treated with biologic DMARDs in Iceland are registered in ICEBIO, a nationwide registry. On February 1st 2016, ICEBIO contained information on 1058 individuals. The Icelandic Directorate of Health operates the Icelandic Medicine Database (IMD), a registry that includes over 95% of all filled drug prescriptions in Iceland. From the IMD, filled antimicrobial prescriptions were extracted two years before and two years after the initiation of first-line TNFi therapy for all patients in ICEBIO with rheumatoid arthritis (RA; n=366), psoriatic arthritis (PsA; n=250) and axial spondyloarthritis (AS; n=218). As controls, five individuals, age and sex matched, for the same calendar time were randomly selected. Antimicrobial use was determined from defined daily dose per 1000 capita (DID).

Results: The use of antimicrobials prior to TNFi treatment was greater in the patient group when compared to controls (mean 43 DID vs 21 DID; p<0.01). The patient group received more DID of antimicrobials following the start of TNFi, with a statistically significant increase in PsA (33.9 to 45.2; p<0.01), AS (37.2 to 46.8; p<0.01) and nonsignificant in RA (46.8 to 49.7; p=0.066). Antibacterial use increased from 115 DID to 137 DID for the whole group, most prominently in the PsA and AS groups (Table I). Antifungal use increased in patients with RA and antiviral use in RA and PsA (Table I).

Table I: Antibacterial, antifungal and antiviral use in DID two years before and after TNFi therapy.

	RA n = 366	Control n = 1830	PsA n = 250	Control n = 1250	AS n = 218	Control n = 1090
Antibacterial						
Before	45.7 ±97.1	23.7 ±47.8	32.7±48.3	19.2 ±34.5	36.6±68.6	16.6 ±37.2
After	47.5 ±80.4	23.8 ±53.7	43.3 ±70.2**	21.2 ±41.0	45.6 ±74.8*	17.5 ±40.3
Antifungal	0.60±4	0.18±1.7	0.32±2.3	0.37±3.6	0.44±2.4	0.13±1.1
Before						
After	1.06 ±6.3*	0.32 ±2.6*	0.42±2	0.41±3.6	0.60±3.4	0.13±1.1
Antiviral	0.49±4.7	0.42±4.5	0.88±9.8	0.21±1.8	0.19±1.5	0.18±3.2
Before						
After	1.06 ±5.5*	0.46±4.9	1.52±11*	0.36±3.5	0.63±3.6	0.29±4.3

*p<0.05; **p<0.01

Conclusion: Patients with active chronic arthritides use statistically significantly more antimicrobials two years antedating TNFi treatment compared to controls. TNFi treatment further increases antimicrobial use in this patient population, especially in patients with PsA and AS. Meanwhile, antifungal use increased in RA and antiviral use increased in both RA and PsA. Further analysis needs to be done on the effect of co-medicines such as glucocorticoids, DMARDs and disease activity.

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DOI: 10.1136/annrheumdis-2019-eular.6141**AB0302 INTEREST OF THE SYSTEMATIC ELECTROCARDIOGRAM IN THE DETECTION OF CARDIAC INVOLVEMENT DURING SPONDYLOARTHROPATHIES AND RHEUMATOID ARTHRITIS**

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Background: Cardiovascular risk is not uncommon in patients with chronic inflammatory rheumatism.

Objectives: The objective: To evaluate the interest of systematic electrocardiogram (ECG) as a tool for detecting cardiac abnormalities during spondyloarthropathies (SA) and rheumatoid arthritis (RA).

Methods: Consecutive patients suffering from SA, RA, hospitalized during the period from 2016 to 2017 and free from cardiovascular events were included. An ECG - 12-lead - was performed and interpreted by a cardiologist without the diagnosis.

Results: A total of 44 patients with SA were included (average duration 9 ± 8 years), 56 patients with RA (average duration $11 \pm$ nine years). They were all asymptomatic on the cardiac level and without a cardiovascular history. The population was homogeneous, concerning the presence of the cardiovascular risk factors, except for the diabetes, more frequent in the RA groups. The proportions of extra systoles, atrioventricular blocks (2.2% in the SA group, 1.4% in the RA group), complete or incomplete left branch block (respectively: 0.7%, 0.6%), complete right limb block or left branch block (respectively: 0.8%, 2.7%) and abnormality suggestive of myocardial ischemia (5.2%, 10.8%)

Conclusion: In patients with no history of cardiovascular disease who are asymptomatic, performing a systematic ECG does not reveal the increased risk of specific cardiac complications related to these conditions in patients with SA and RA.

REFERENCES

- [1] Danesh J, Whincup P, Walker M, et al. Low grade inflammation and coronary heart disease: prospective study and updated meta-analyses. *BMJ* 2000;321:199–204.
- [2] Bulkley BH, Roberts WC. Ankylosing spondylitis and aortic regurgitation. *Circulation* 1973;48:1014–27.
- [3] Nitter Hauge S, Otterstad JE. Characteristics of atrioventricular conduction disturbances in ankylosing spondylitis. *Acta Med Scand* 1981;210:197–200.
- [4] Brunner F, Kunz A, Weber U, et al. Ankylosing spondylitis and heart abnormalities. *Clin Rheumatol* 2006;25:24–9.
- [5] Yildirim A, Aksoyok S, Calguneri M, et al. QT dispersion as a predictor of arrhythmic events in patients with ankylosing spondylitis. *Rheumatology* 2000;39:875–9

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AB0303

METABOLIC SYNDROME IN TUNISIAN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: The rheumatoid arthritis (RA) is responsible of a high cardiovascular morbi-mortality. This could be related to an increased prevalence of metabolic syndrome in patients with (RA)

Objectives: The aim of our study was to determine the prevalence of metabolic syndrome in RA, to identify factors associated with its presence and to evaluate the influence of antirheumatic drugs on its occurrence.

Methods: A cross-sectional study was conducted in the Internal Medicine department over a period from July 2016 to June 2017, including 50 RA patients classified according to the 1987 ACR and/or 2010 ACR/EULAR criteria. We used the National Cholesterol Education Program/Adult Panel Treatment III 2005 (NCEP/ATP III 2005) definition for the metabolic syndrome.

Results: There were 50 patients (sex-ratio = 0.28) with a mean age of 50.84 ± 12.52 years. The mean age at the onset of RA was 42.04 ± 12.76 years with duration of 17.52 months (0.8-120 months). The evaluation of the disease showed an average DAS28-VS score of 5.37 ± 1.24 and a significant functional impact (HAQ score ≥ 1) in 36% of patients. The prevalence of metabolic syndrome in RA was 40%. Its presence was associated with higher age ($p = 0.003$), greater disease activity ($p=0.044$), the presence of a biological inflammatory syndrome ($p=0.032$) and hyperuricemia ($p=0.005$). An association was also found with long-term corticosteroid use ($p = 0.03$).

Conclusion: Our results are consistent with most of the literature data. Throughout our study, we emphasize the importance of continuous monitoring of disease activity and the need for cortisone-sparing.

REFERENCES

- [1] Da Cunha VR, Brenol CV, Brenol JCT, Fuchs SC, Arlindo EM, Melo IMF, et al. Metabolic syndrome prevalence is increased in rheumatoid arthritis patients and is associated with disease activity. *Scand J Rheumatol*. 2012; 41 (3): 186–91.
- [2] Chung CP, Oeser A, Solus JF, Avalos I, Gebretsadik T, Shintani A, et al. Prevalence of the metabolic syndrome is increased in rheumatoid arthritis and is associated with coronary atherosclerosis. *Atherosclerosis*. 2008; 196 (2): 756–63.
- [3] Dao H-H, Dao Q-T, Sakamoto J. Increased frequency of metabolic syndrome among Vietnamese women with early rheumatoid arthritis: a cross-sectional study. *Arthritis Res Ther*. 2010; 12 (6): R218.

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AB0304

EXTRA-ARTICULAR MANIFESTATIONS IN A COHORT OF PATIENTS WITH RHEUMATOID ARTHRITIS RECEIVING BIOLOGIC TREATMENT

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Background: Extra-articular manifestations (EAM) in rheumatoid arthritis (RA) are more prevalent in patients with seropositive, nodular and long term disease. Around 40% of patients with RA can develop EAM, although the incidence has decreased with the “treat to target” strategy.

Objectives: To describe EAM in a cohort of patients with rheumatoid arthritis.

Methods: Retrospective descriptive study of patients diagnosed with RA between 2000 and 2018 who are currently under active biological treatment. Cardiovascular risk factors, baseline characteristics of RA and EAM during their evolution are collected. Statistical analysis is performed with SPSS 24.

Results: We recruited 108 patients, 81.5% female, with mean age at onset of RA of 50 ± 15 years (range 17-82). RF was positive in 84.3% and ACPA in 81.3%. Erosions were observed on hands or feet at diagnosis in 35.2%. Mean follow up period: 12 ± 8 years. The most common initial treatment was methotrexate (82.4%) and 44.4% received other DMARDs: leflunomide (32.3%), hydroxychloroquine (16.2%) and others (9.1%).

DAS28VSG at diagnosis was 4.15 ± 1.18 (1.89-6.02) and at the introduction of the first biological drug it was 5.02 ± 1.16 (mean years since diagnosis 6 $\pm$ 5).

The first biological drug was etanercept (40.7%), followed by adalimumab (17.6%), abatacept (15.7%), rituximab (7.4%), tocilizumab (7.4%) and infliximab (4.6%). 57.4% discontinued the first biologic: secondary failure (58.1%) or adverse effects (20.6%).

65.7% (71 patients) developed some EAM during disease evolution and 14.8% appeared during the first year. During this first year, secondary Sjögren (37.5%) was the most frequent, followed by rheumatoid nodules (18.7%), EPID (18.7%) and osteoporosis (18.7%). Two or more EAMs were present in 33.3% of patients.

Fifty-four patients (56.3%) did not present any EAM at the beginning of the biological treatment and 29.6% (21 patients) developed EAM afterwards, with an average of 1 ± 3 years. Pulmonary involvement was the first EAM to appear after the onset of biological treatment, followed by anemia (both in the first year).

Summarizing the data of all patients over time, the most frequent EAMs were: osteoporosis (28.7%, mean appearance: 5 years from diagnosis); secondary Sjögren syndrome (27.8%, mean 6 years); normochromic normochromic anemia (21.3%, mean 8 years) and pulmonary involvement (17.6%, mean 4 years), presented as EPID (63.3%), NINE (25%), NIU (8.3%) and pulmonary nodules (8.3%). Other EAM observed were: cutaneous involvement in the form of rheumatoid nodules (15.7%, mean 5 years); ophthalmological involvement (6.5%, mean 18 years) (PUK 2.8%, uveitis 1.9%, scleritis 0.9%, episcleritis 0.9%); amyloidosis (3.7%, mean 16 years) and vasculitis (2.4%, mean 14 years).

Conclusion: EAM have a high prevalence in RA patients receiving biologic treatment (76.6%). A third part of patients had 2 or more EAMs. 14.8% develop the first EAM during the first year of evolution of RA and 30% in the first 5 years. The most frequent are osteoporosis and Sjögren's syndrome, according to what is described in the literature. Pulmonary involvement is the most rapid during the evolution of RA with an average of 4 years.

REFERENCES

- [1] Marcucci E, Bartoloni E, Alunno A, Leone MC, Cafaro G, Luccioli F, et al. Extra-articular rheumatoid arthritis. *Reumatismo*. 2018 Dec 20;70(4):212–224

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