COVID-19 pandemic response to limit virus transmission was characterized by mandated lockdowns and quarantines, resulting in significant stressors for rheumatology patients and potentially threatening their disease.

Conclusion: In a large survey population of RA patients during the COVID-19 pandemic, multiple aspects of stress were found to correlate with RA disease activity and flare.

Table 1. Current RA flare at time of survey completion

<table>
<thead>
<tr>
<th>Current Flare</th>
<th>Current Flare Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>N=719</td>
</tr>
<tr>
<td>N=409</td>
<td>P-Value</td>
</tr>
<tr>
<td>RA duration (mean ± SD) years</td>
<td>15.6 ± 12.3</td>
</tr>
<tr>
<td>Patient Global (mean ± SD), range 0-10</td>
<td>3.5 ± 2.5</td>
</tr>
<tr>
<td>RAPID3 (mean ± SD) range 0-30</td>
<td>6.1 ± 5.6</td>
</tr>
<tr>
<td>Patient-Reported Remission, no. (%)</td>
<td>404 (51.7%)</td>
</tr>
<tr>
<td>RA-FQ Score, (mean ± SD), range 0-50</td>
<td>13.4 ± 11.4</td>
</tr>
<tr>
<td>PSS-4, (mean ± SD)</td>
<td>5.2 ± 3.9</td>
</tr>
<tr>
<td>Overall stress level (%)</td>
<td>62.3%</td>
</tr>
<tr>
<td>Increased</td>
<td>28.5%</td>
</tr>
<tr>
<td>Unchanged</td>
<td>10.7%</td>
</tr>
</tbody>
</table>

RA duration (mean ± SD) years was compared across different time periods: (i) 2005-2007; (ii) 2008-2010; (iii) 2011-2013; (iv) 2014-2017. Clinical characteristics were collected according to standardised assessments. Data were analysed in the total population and after stratification for the autoantibody status (double negative for rheumatoid factor, RF, and anti-ccr3/lymphocytic antibodies, ACAP vs RF and/or ACAP positive).

Results: In all, the diagnostic delay collectively increased from a mean (SD) of 21.8 (20.5) weeks before 2010 to 24.4 (20.6) weeks thereafter (p=0.02), and the proportion of patients diagnosed within 12 weeks non-significantly decreased from 39.3% to 35.3%. Still, patients presented with progressively milder inflammatory markers despite unchanged joint tenderness and patient-reported outcomes (PRo). Trends were, however, remarkably different in different autoantibody subgroups. In RF/ACPA-positive patients, a stable proportion of 41-44% was diagnosed within 12 weeks (Figure 1A). At presentation, patients had fewer SJs and lower C-reactive protein (CRP) levels; the mean decrease of SJs and CRP from 2005-2007 to 2014-2017 were -5.6 and -1.1 mg/dl, respectively (Figure 1B). The improvement in PRo was smaller but still significant over time (Figure 1C).

Collectively, our data indicate that a large proportion of patients with RA still lack early diagnosis despite dedicated early access to rheumatology care; from 2010 onwards, autoantibody-positive patients are diagnosed with a milder and less disabling disease, while autoantibody-negative patients are at increased risk of delayed diagnosis, and remain burdened with severe disease.

Disclosure of Interests: Ludovico De Stefano Speakers bureau: Gilead, Bernardo D’Onofrio: None declared, Carasilia Sakellaris: None declared, Antonio Manzo: None declared, Carlomaurizio Monteucco Speakers bureau: AbbVie, Bristol-Myers Squibb, Eli Lilly, Gilead, Pfizer, Roche, Sanofi, Serena Bugatti Speakers bureau: AbbVie, Bristol-Myers Squibb, Eli Lilly, Gilead, Pfizer, Sanofi, Grant/research support from: Pfizer DOI: 10.1136/annrheumdis-2022-eular.2873
Disclosure of Interests: Daniel Furst Consultant of: Corbus; Galapagos; Novartis; Amgen; Grant/research support from: Actelion; Galapagos; National Institutes of Health; GlaxoSmithKline; Sanofi; Corbus; Pfizer; Novartis; Amgen; Bristol Myers Squibb; Roche/Genevant; Nicolette T Morris: None declared, Angela G Pharm: None declared, Thasia Woodworth: None declared, David Elashoff: None declared, Jenny Brook: None declared, Veana Ranganath Grant/research support from: Bristol Myers Squibb; Mallinckrodt Pharmaceuticals


POS0610
THE RELATIONSHIP BETWEEN SYSTEMIC MANIFESTATIONS OF RHEUMATOID ARTHRITIS AND THE STRUCTURAL GEOMETRY OF THE MYOCARDIUM.

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Background: In recent years, chronic inflammatory diseases, including rheumatoid arthritis (RA), have been perceived as independent risk factors for cardiovascular diseases. In addition to influencing the development of atherosclerosis, rheumatic diseases are accompanied by changes in the myocardium.

Objectives: to determine the relationship between systemic manifestations of RA and structural changes of the heart.

Methods: The 282 patients (240 women and 42 men) with verified RA were examined. In addition to standard diagnostic tests, all patients underwent echocardiography with tissue Dopplerography of the myocardium.

Results: Structural and geometric remodeling of the heart was detected in 146 patients (51.8%), of which 29 had concentric remodeling, 35 had concentric hypertrophy, and most often, 82 people had eccentric hypertrophy. The average age was 57.9±8.55 years in the group with cardiac remodeling and 47.2±11.92 years in individuals with normal heart geometry, respectively (p<0.0001). Among 136 patients (48.2%) with normal heart geometry, 39 people suffered from arterial hypertension, 73 patients had various systemic manifestations of rheumatoid arthritis (Sjogren’s syndrome, rheumatoid nodules and/or cryoglobulinemia). Among those with cardiac remodeling, arterial hypertension was diagnosed more often – in 107 people (p<0.0001), and systemic manifestations of rheumatoid arthritis - in 87 patients (p<0.1). A comparison was made between a group with eccentric hypertrophy (82 people) and a combined group of patients with concentric remodeling and concentric hypertrophy (64 people). In the first group, the age was higher and amounted to 58.6±5.2 years, and in the second – 57.2±7.96 years (p<0.05). In the first group, systemic extra-articular manifestations of rheumatoid arthritis were found in 56 individuals (68.3%), and in the second group – in 33 people (51.6%) (p=0.04).

It is worth noting that in the second group, patients with concentric hypertrophy made the greatest contribution: of 35 people, systemic manifestations of rheumatoid arthritis were detected in 23 people (65.7%), which is comparable to the frequency among people with eccentric hypertrophy. In this regard, for the research purpose, we combined individuals with normal geometry and concentric remodeling into one group (165 people), and patients with concentric and eccentric hypertrophy into another group (117 people). When compared, it was found that regardless of the type of myocardial hypertrophy these individuals are significantly more likely to suffer from systemic manifestations of rheumatoid arthritis: 53.9% and 67.5%, respectively (p=0.02).

Conclusion: the formation of myocardial hypertrophy in patients with rheumatoid arthritis is associated with more frequent development of extra-articular manifestations of this disease.

REFERENCES:

Disclosure of Interests: None declared


POS0611
THE SIGNIFICANCE OF DETERMINING THE LEVEL OF THE ST-2 MARKER OF HEART FAILURE IN PATIENTS WITH RHEUMATOID ARTHRITIS.

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Background: The heart failure in patients with rheumatoid arthritis differs in its genesis from that in the general population. It has been established that the increased risk of congestive heart failure in patients with RA cannot be explained by the high frequency of risk factors for cardiovascular diseases, including coronary heart disease. While 80% of chronic heart failure in the general population is associated with classical risk factors for cardiovascular diseases, in RA these same predictors explain only 40% of cases.

Objectives: to establish the prevalence of diastolic dysfunction of preclinical signs of heart failure in patients with rheumatoid arthritis.

Methods: The 282 patients with verified rheumatoid arthritis were examined, including 240 women and 42 men. All patients underwent standard diagnostic tests, two-dimensional transesophageal echocardiography with tissue Dopplerography of the myocardium, determination of the level of ST-2, stimulating growth factor, a marker of heart failure, in blood serum.

Results: The Tissue Dopplerography in combination with two-dimensional echocardiography allowed us to identify patients with diastolic myocardial dysfunction and form the following subgroups. 1 – with normal heart geometry and without diastolic myocardial dysfunction (91 people), 2 – with normal heart geometry and with diastolic dysfunction (45 people), 3 - with structural and geometric remodeling of the heart and without diastolic myocardial dysfunction (73 people), 4 – with structural -geometric remodeling of the heart and with diastolic dysfunction (73 people). Among patients with altered heart geometry (3rd and 4th subgroups), the prevalence of diastolic dysfunction was higher than among those with normal geometry (1st and 2nd subgroups): 50% and 33.1%, respectively (p=0.004). We conducted a comparison between the subgroups depending on the presence of diastolic myocardial dysfunction. The average age of patients with rheumatoid arthritis who showed signs of diastolic dysfunction with normal heart geometry was higher (54 [49; 57] years) than in the compared subgroup (45.5 [35.3; 53.5] years (p<0.0001). They also had significantly higher ST-2 levels of the ST-2 marker, which indicates an early preclinical sign of heart failure: 70.1 [39.5; 106.5] and 42.2 [29.6; 61.5]ng/ml (p<0.01). Apparently, despite the absence of cardiac remodeling, with age, patients with rheumatoid arthritis are more likely to develop not only diastolic dysfunction, but also diastolic type of heart failure.

Conclusion: Thus, in patients with rheumatoid arthritis, it is advisable to conduct tissue Dopplerography in addition to standard echocardiography to detect diastolic dysfunction, which in these patients may develop in the absence of structural and geometric changes.

REFERENCES:

Disclosure of Interests: None declared


POS0612
COMORBIDITIES IN RHEUMATOID ARTHRITIS DO NOT INFLUENCE BIOLOGICS DRUG RETENTION: DATA FROM THE NATIONAL HEALTH INSURANCE FUND OF TUNIS

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Background: the advent of biologics in the late 1990s radically changed the profile of inflammatory diseases, in particular rheumatoid arthritis (RA). The survival of these innovative therapies is an indicator, in clinical practice, of their long-term efficiency in patients with RA.

Objectives: To study the influence of comorbidities on biologics drugs retention rates.

Methods: We conducted a cross-sectional, observational study. Data were identified from the files of the National Health Insurance Fund of Tunis. It included patients with RA on biologics. Epidemiological characteristics such as age, sex, and comorbidities, were collected. Comorbidities were assessed by the Charlson Comorbidity Index (CCI). The therapeutic maintenance rate at 12, 24, 36, and 48 months as well as the biologics survival were analyzed using Kaplan-Meier survival curves and compared using the Log-Rank test.

Results: Three hundred and seventy-four files were selected. The average age of our cohort was 55±12.54 years [20-90]. A female predominance was noted with a sex ratio M/F=0.147. The average duration of RA was 11.7±6.76 years.