Conclusion: In early arthritis patients, during 5 years treated to target drug free DAS-remission, disease flares with loss of DAS-remission were common. Although the majority of patients who flared were still in LDA, most reported more pain, morning stiffness, increased disease activity and a diminished global health. On average, deterioration in HAQ only exceeded the minimum clinically important difference (delta HAQ >=0.22) in case of a >=0.6 increase in DAS, independent of the previous DAS. Depending on the definition of flare, up to 45% of patients lost DAS LDA, and in this group the functional deterioration significantly more often exceeded the MCID as compared to the patients that flared but were still in LDA. More research is needed to find out which patients are most at risk for clinically relevant flares, and to evaluate the impact of flares in patients with remission on long term outcomes.

Acknowledgements: We would like to thank all patients for their contribution as well as the rheumatologists who participated in the IMPROVED-study group. We would also like to thank all other rheumatologists and trainee rheumatologists who enrolled patients in these studies, and all research nurses for their contributions.

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POS0480

ASSOCIATION OF NEUTROPHIL LYMPHOCYTE AND PLATELET LYMPHOCYTE RATIOS WITH JOINT INFLAMMATION IN RHEUMATOID ARTHRITIS

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Background: Some patients with rheumatoid arthritis (RA) have high disease activity scores (DAS) and low synovial inflammation, and others have high synovial inflammation and low DAS (subclinical synovitis)[1]. It would be clinically useful to identify blood biomarkers of synovial inflammation. Neutrophil-lymphocyte (NLR) and platelet-lymphocyte ratios (PLR) have been reported to distinguish RA patients with moderate/high DAS28 scores from low DAS28 [2]. However, it is not known if these inexpensive, accessible tests are associated with inflammation in synovial tissue at the histological level.

Objectives: The objective of this study was to evaluate the relationship of pre-operative NLR and PLR with synovial inflammation of the operative joint in RA patients undergoing arthroplasty.

Methods: 230 patients meeting ACR/EULAR 1987 and/or 2010 criteria were recruited prior to elective total hip, knee, shoulder, and elbow replacement. Demographics, RA characteristics, medications, disease activity, and routine tests including complete blood tests (CBC) were collected pre-operatively. Hematoxylin and eosin (H&E) stains were prepared from the synovium of the operative joint and systematically scored by a pathologist as described previously [3]. Synovial lymphocytic inflammation was graded as none, mild, moderate, marked, or band-like. Linear regression was performed to distinguish differences in the NLR, PLR, and CRP in patients with synovial lymphocytic inflammation (SLI).

Results: As expected, patients on glucocorticoids (GCs) had higher NLR (mean 5.52 (SD 7.68) vs mean 2.82 (SD 1.66) <0.001) and higher PLR (mean 233.73 (SD 237.21) vs mean 162.93 (SD 65.35) <0.04) and those patients (N=82) were therefore excluded from downstream analyses. On the remaining 138 patients, we tested for associations of PLR, NLR and CRP with SLI using linear regression. In all the models the highest category for synovial lymphocytic inflammation was found to be statistically significantly associated with NLR, PLR and CRP, separately (Table 1).

Table 1. Results from linear regressions evaluating the association of NLR, PLR, and CRP with synovial lymphocytic inflammation.

<table>
<thead>
<tr>
<th>Linear regression Results</th>
<th>NLR</th>
<th>PLR</th>
<th>CRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference</td>
<td>Coef (95% CI)</td>
<td>Coef (95% CI)</td>
<td>Coef (95% CI)</td>
</tr>
<tr>
<td>Mid</td>
<td>0.31 (-0.51, 1.13)</td>
<td>26.54 (-8.83, 61.90)</td>
<td>-1.00 (-2.37, 0.36)</td>
</tr>
<tr>
<td>Moderate</td>
<td>0.73 (-0.18, 1.64)</td>
<td>28.66 (-10.22, 67.53)</td>
<td>0.46 (-1.99, 2.01)</td>
</tr>
<tr>
<td>Marked</td>
<td>0.21 (-0.80, 1.22)</td>
<td>24.62 (-22.80, 72.05)</td>
<td>0.81 (-0.87, 2.49)</td>
</tr>
<tr>
<td>Band-like</td>
<td>1.92 (0.81, 3.02)</td>
<td>80.42 (31.46, 129.38)</td>
<td>2.32 (0.49, 4.16)</td>
</tr>
</tbody>
</table>

OR= Odds ratio, Coef = Coefficient, NLR= neutrophil lymphocyte, PLR= platelet lymphocyte ratio, CRP= C-reactive protein
All significant associations are bolded.

References:


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DOES OLDER REALLY MEAN WISER?

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Background: One of the main challenges in Rheumatoid arthritis (RA) is to maintain remission or low disease activity by adhering to the prescribed treatments. However, it is believed that adherence to long term treatments is inadequate in chronic diseases. Does this apply to older people too?

Objectives: To assess treatment adherence among an elderly RA population and to study determining factors of non-adherence.

Methods: A cross-sectional study over a period of 4 months was conducted in a rheumatology clinic (September 2020–December 2020). Consenting elderly over the age of 65 presenting with RA were included. Exclusion criteria involved associated connective tissue diseases and troubles communicating. During clinical visits, sociodemographic information, clinical, radiological and therapeutic data were collected. Treatment adherence was assessed by the 8-item compliance questionnaire of rheumatology (COQ-8). Patients were also asked about the degree of satisfaction vis-à-vis the therapeutic effect detected. Univariate and multivariate analysis were conducted using the statistical tool SPSS 20.

Results: Forty patients consented to join the study. 82.5% of them were women. The median of age was 66.5 years old with a minimum of 65 and a maximum of 83. Comorbidities were noted in 55% of the patients. 75% of the patients had health insurance. The mean pain score was 5 out of 10 on a visual analog scale (VAS). The mean DAS 28 was 4.65±1.77 with 72.5%