national database and treated with bDMARD between June 2008 and July 2020. Demographic, clinical and laboratorial data (including 25-hydroxyvitamin D [25-OHvitD]) at baseline and disease activity measures at 6 and 12 months of treatment with the first bDMARD were collected. Correlations between variables were evaluated by Spearman rank test, Mann-Whitney U test was used to the comparison analysis between groups and univariate logistic regression was used in the prediction analysis.

Results: A total of 195 SpA patients were included: 103 (52.8%) females, 47 (24.1%) smokers and 91 (46.7%) HLA-B27 positive; 139 (71.3%) had Ankylosing Spondylitis, 18 (9.2%) had Inflammatory Bowel Disease Associated SpA and 38 (19.5%) had Undifferentiated SpA. At the time of the first bDMARD, the mean age was 43.5 years (± 9.6) and the median disease duration was 12.4 years (0.7–52.7). The mean ASDAS-CPR (Ankylosing Spondylitis Disease Activity Score with C-reactive protein) was 3.9 (± 0.8) and, in addition, 61 (31.3%) patients had 25-OHvitD levels below 30 ng/mL and 12 (6.2%) had 25-OHvitD levels below 20 ng/mL. Fifty-three patients (27.2%) were taking NSAIDs (nonsteroidal anti-inflammatory drugs), 77 (39.5%) were under csDMARDs (conventional synthetic disease-modifying antirheumatic drugs). Adalimumab (56%) and golimumab (33.3%) were the most frequently initiated bDMARDs in the first line.

There were no statistically significant correlations between baseline 25-OHvitD levels and ASDAS-CRP at 6 ($r=0.031$; $p=0.714$) and 12 months ($r=0.035$; $p=0.672$) of bDMARD.

In the subgroup analysis: there were no statistically significant differences in the response to bDMARD at 6 and 12 months evaluated by ASDAS response and ASAS 20, 40 and 70 responses according to the baseline 25-OHvitD levels (25-OHvitD <20 ng/mL vs ≥ 20 ng/mL; 25-OHvitD <30 ng/mL vs ≥ 30 ng/mL); and there were no statistically significant differences in the baseline 25-OHvitD levels at baseline according to the response to bDMARD at 6 and 12 months of bDMARD (ASDAS: no response vs clinically important improvement or major improvement; ASAS 20: no response vs response).

In the line of these previous results, baseline 25-OHvitD levels did not predict the ASDAS response at 6 (OR 0.97 [0.95–1.00], 95% CI) or 12 (OR 0.98 [0.95–1.01], 95% CI) months of bDMARD.

Conclusion: Despite some data that suggest that lower levels of 25-OHvitD may be associated with higher disease activity in SpA, our results failed to demonstrate that the baseline 25-OHvitD levels can be related or predict treatment response after 6 and/or 12 months of therapy with the first bDMARD in real-life SpA patients.

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AB0836

DIAGNOSIS VALUE OF INTERLEUKIN 17 IN SPONDYLOARTHRITIS

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Background: Interleukin 17 (IL-17) is pro-inflammatory cytokine that plays a crucial role in spondyloarthritis via the Th17/IL-17 axis. (1)

Objectives: We aimed to study the diagnosis value of IL-17 serum in spondyloarthritis.

Methods: We conducted a case-control study, including 104 subjects divided into 2 groups:

-G1: 52 patients meeting the Assessment of SpondyloArthritis International Society (ASAS) criteria for spondyloarthritis (SA)

-G2: 52 healthy controls matched for age and sex.

The IL-17 level was measured using Enzyme-linked immunosorbent assay (ELISA).

We performed a ROC analysis and computed the area under the curve (AUC) at IL-17 to assess the ability of IL-17 to diagnose SA.

Statistical analysis was performed using "IBM SPSS Statistics" software version 25.

Results: Eighty per cent of the patients were men ($n=41$). The mean age was 44.96 ± 13.09 years. The mean age at the onset of the disease was 35.07 ± 12.66 years. The disease duration was 9.25 ± 8.09 years. Axial radiographic spondyloarthritis and peripheral involvement were found in 53.8% ($n=28$) and 44.2% ($n=23$) of cases, respectively. Psoriasis was noted in 46% of cases ($n=24$). The mean ASDAS-CRP was 3.21 ± 1.64 .

IL-17 level was significantly higher in patients compared to healthy controls (92.76 ± 71.85 pg/mL and 2.67 ± 9.01 pg/mL, respectively, $p<0.0001$).

As shown in Figure 1, the AUC value to distinguish between spondyloarthritis and healthy control was 0.987 ($p<0.0001$). IL-17 cut-off was 13.79 pg/mL (Sensitivity= 94.2%, specificity=98.1%).

Conclusion: According to previous studies, our study showed that serum IL-17 level is significantly higher in SA patients compared to healthy controls (2).

Figure 1. AUC at IL-17 between SA patients and healthy controls 0.987 ($p<0.0001$)

Interestingly, IL-17 was able to distinguish between SA patients and healthy controls with a cut-off of 13.79 pg/mL. This finding suggests that IL-17 may be useful for the diagnosis of SA.

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AB0837

SERUM YKL-40 LEVELS IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS: RELATION TO DISEASE ACTIVITY AND JOINT DESTRUCTION

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Background: YKL-40 (chitinase-3-like 1 protein, human cartilage glycoprotein 39) is one of the major proteins secreted locally in the arthritic joint by activated macrophages, chondrocytes, synoviocytes and neutrophils, YKL-40 an important marker for inflammation, cartilage remodelling and synovial hyperplasia is recognized as a possible auto-antigen in rheumatoid arthritis (RA).

Objectives: The aims of the study were to determine the serum level of YKL-40 in early RA and investigate his relationship with biomarkers of disease activity and joint destruction.

Methods: We studied 22 patients with early RA (ACR/EULAR 2010 classification criteria); 4 males, 18 females; median and interquartile range (25th–75th percentile) of age 55,0 (43,0–64,0) years, disease duration 7,0 (5,0–11,0) months, DAS28 4,9 (4,3–5,8); 86% IgM rheumatoid factor (IgM RF) +; 91% anti-cyclic citrullinated peptide antibody (anti-CCP) +. All patients were treated with methotrexate (MTX). Three (14 %) patients received low oral doses of steroids and intra-articular injections. The control group included 22 healthy donors (HC). Radiographs were scored according to the van der Heijde-modified Sharp score. YKL-40, matrix metalloproteinase-3 (MMP-3), anti-CCP were detected using commercially available enzyme-linked immunosorbent assays (ELISA). The serum levels of IgM RF, C-reactive protein (CRP), serum amyloid A (SAA) were measured by immunonephelometry.

Results: RA patients had significantly higher serum level of YKL-40 than HC (92.1; 68.5-153.1 pg/ml vs 54.0; 41.7-83.2 pg/ml, $p<0.01$). Serum YKL-40 concentration was positively correlated with DAS 28 ($r=0.5$; $p<0.05$), erythrocyte sedimentation rate (ESR) ($r=0.5$; $p<0.05$), CRP ($r=0.8$; $p<0.05$), SAA ($r=0.6$; $p<0.05$) and MMP-3 ($r=0.6$; $p<0.05$). We found no relationship between the level of YKL-40 and articular radiographic changes.

Conclusion: Elevated serum concentration of YKL-40 in early RA is associated with clinical and laboratory indicators of disease inflammatory activity and increased level of MMP-3 - an immunological marker of joint destruction.

Disclosure of Interests: Elena Aleksandrova: None declared, Alexander Novikov: None declared, Elena Luchikhina Speakers bureau: Abbvie, Roche, Pfizer, Biocad, MSD, Sanofi, Johnson & Johnson, Glaxo, UCB, Celgene, Novartis, Consultant of: Abbvie, Biocad, Sanofi, Celgene, Dmitriy Karateev Speakers bureau: Abbvie, Roche, Pfizer, Biocad, MSD, Sanofi, Johnson & Johnson, Glaxo, UCB, Celgene, Novartis, Paid instructor for: Abbvie, Pfizer, Biocad, Sanofi, Novartis, Lilly, Galina Lukina Speakers bureau: Abbvie, Roche, Pfizer, Biocad, MSD, Sanofi, Johnson & Johnson, Glaxo, UCB, Celgene, Novartis, Paid instructor for: Abbvie, Biocad, Sanofi, Celgene

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AB0838

ADHERENCE TO TREATMENT IN PATIENTS WITH RHEUMATIC PROFILE DEPENDING ON THE OPTION OF BASIC THERAPY

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Background: Treatment adherence is an important issue in actual clinical practice. As defined by the WHO, adherence to treatment is seen as the degree to which a patient's actions - taking medications, adhering to diet and other lifestyle interventions - correlate with following the doctor's recommendations. Treatment of patients with rheumatic diseases continues for many years, and often for life. The identification of factors associated with adherence to therapy will justify the implementation of a number of measures in order to increase the effectiveness of treatment of patients. Biological disease modifying antirheumatic drugs (bDMARDs) therapy involves more frequent visits of patients to a doctor with close monitoring of their condition, which may have an impact on adherence to treatment in this group of patients.

Objectives: To assess adherence to treatment of patients with rheumatological profile, depending on the basic therapy option.

Methods: A survey of 84 patients was conducted: 48 (57.1%) women and 36 (42.9%) men, mean age 51 years (36.8; 60.3). Most patients are observed with a diagnosis of rheumatoid arthritis - 48 (57.1%) people, with psoriatic arthritis - 26 (30.9%) and with ankylosing spondylarthritis - 10 (12.0%) people.

The patients were divided into 2 groups depending on the type of basic therapy: Group 1 (40 people) - patients receiving combined therapy with bDMARDs and methotrexate; Group 2 (44 people) - patients with methotrexate monotherapy.

Patients in group 1 received the following bDMARDs: 18 patients received sarilumab (200 mg sc once every 2 weeks), 22 people received secukinumab (150 mg sc once a month). All patients took methotrexate at an average dose of 17.5 (15.0; 20.0) mg / week and NSAIDs.

Adherence to treatment was assessed using the Morisky-Green scale. Each of the 4 points is evaluated according to the principle of answers to the question "yes-no", while the answer "yes" is estimated at 0 points, and the answer "no" - at 1 point. Patients who score 4 points are considered compliant (adherent); insufficiently committed and those at risk for the development of non-commitment - 3 points; not committed - 2 points or less.

Results: The majority of patients are seen by a doctor monthly - 45.2% (38) and once a quarter - 33.3% (28). Only 7.1% (6) people are observed once every 6 months and 4.8% (4) once a year, and 9.6% (8) are not observed at all.

The frequency of medical observations in the 1st group of patients was higher than in the 2nd: monthly - 60.0% (24) and 40.9% (18), every 3 months - 40.0% (16) and 45.5% (20), respectively ($p=0.072$ and $p=0.089$), and only patients of the 2nd group were observed once every 6 months (4.5% - 2 people) and once a year (9.1% - 4 people). There were no statistically significant differences in adherence indicators.

When assessing adherence to treatment according to the Morisky-Green scale: only 37.5% (15) of patients in group 1 and 29.6% (13) in group 2 ($p=0.12$) adhere to therapy, 30.0% are not adherent enough (12) and 22.7% (10) patients ($p=0.31$), not adhering to treatment - 32.5% (13) and 47.7% (21) people, respectively ($p=0.39$).

Conclusion: Thus, basic therapy bDMARDs with more frequent medical supervision does not affect adherence to treatment. Only about a third of patients are adherent to bDMARDs therapy.

Disclosure of Interests: None declared

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AB0839

A STUDY OF SERUM COMPLEMENT AND SERUM CALPROTECTIN LEVEL IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Serum calprotectin, also known as MRP8/14 or S100A8/A9, has gained attention in recent years as a candidate biomarker in inflammatory diseases like SLE.¹ Proteins of the complement pathway (serum C3 and C4) are linked to the pathogenesis of SLE and their levels have been measured as a means to assess the disease activity.²

Objectives:

- [1] To study the relation of serum complement and serum calprotectin levels to disease activity in SLE
- [2] To study the relation between serum complement and serum calprotectin level in SLE

Methods: Our study was a hospital based observational study conducted in a tertiary care centre in North-East India during the period of June 2019 to May 2020. A total of 102 patients of SLE were taken up for the study. Disease activity was assessed using SLEDAI-2K scores and serum calprotectin level was measured by ELISA. Serum C3 level was assessed by Nephelometric and C4 level by Turbidimetric immunoassay. The statistical significance was fixed at 5% level of significance ($p<0.05$) for all analysis.

Results: Our study found a predominantly female population (Female: Male ratio 24.5: 1) with majority of the patients (49.02%) in the 30-39 years age group. Higher calprotectin levels were seen in patients with higher disease activity (SLEDAI) and this relation was statistically significant ($r=0.84$, $p<0.001$). There was significant negative correlation between disease activity (SLEDAI) and serum C3 ($r=-0.35$, $p<0.001$) and serum C4 ($r=-0.4$, $p<0.001$) level. There was a significant negative correlation between complement levels and serum calprotectin levels ($r=-0.53$, $p<0.001$).

Conclusion: We found a significant positive correlation between serum calprotectin level and disease activity with a significant negative correlation between complement level and disease activity in SLE patients. There was a significant negative correlation between serum complement and serum calprotectin levels. These findings suggest serum calprotectin levels could be a substantial addition in the existing diagnostic array of tools in assessing lupus disease activity.

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AB0840

DIAGNOSIS VALUE OF INTERLEUKIN 23 IN SPONDYLOARTHRITIS

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Background: Interleukin 23 (IL-23) is a pivotal pro-inflammatory cytokine in the Th17/IL-23 axis which became the center of attention in researches during these last decades, especially during spondyloarthritis (1).

Objectives: We aimed to study the diagnosis value of IL-23 serum in spondyloarthritis.

Methods: We conducted a case-control study, including 144 subjects divided into 2 groups:

- G1: 72 patients meeting the Assessment of SpondyloArthritis International Society (ASAS) criteria for spondyloarthritis (SA)
- G2: 72 healthy controls matched for age and sex.

For each SA patient we collected the following parameters: BASDAI (Bath Ankylosing Spondylitis Disease Activity Index), ASDAS (Ankylosing Spondylitis Disease Activity Score), BASFI (Bath Ankylosing Spondylitis Functional Index), and BASRI (Bath Ankylosing Spondylitis Radiology Index).

The IL-23 level was measured using Enzyme-linked immunosorbent assay (ELISA).

Erythrocyte Sedimentation rate (ESR) and C-reactive protein (CRP) were also measured.

We performed a ROC analysis and computed the area under the curve (AUC) at IL-23 to diagnose SA patients.

Statistical analysis was performed using "IBM SPSS Statistics" software version 25.