sulfasalazine. Sixty-nine patients were achieved an excellent pain control outcome with these agents (Group A). Sixty-four patients who complained of intractable low back pain were switched to anti-TNF- α treatment (Group B). Twelve radiographic parameters were measured. Clinical outcome was assessed with the Bath AS Disease Activity Index (BASDAI), erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP). All parameters were measured at enrolment, upon changing treatment agents, and every 6 months during follow-up.

Results: Mean ESR, CRP, BASDAI, and thoracic kyphosis at baseline were significantly higher in group B. After treatment, group B had significantly higher lumbar lordosis and significantly better clinical outcomes. Correlation analysis revealed significant relationships between radiologic parameters and BASDAI. On multiple regression analysis, lumbar lordosis was a significant predictor of BASDAI.

Abstract AB0839 – Figure 1

Conclusions: This study demonstrated a clear association between treatment agents and radiologic parameters in AS. Anti-TNF- α treatment improved lumbar lordosis and slowed thoracic kyphotic progression with improvement of clinical outcomes. Lumbar lordosis was a significant predictor of clinical outcome in AS patients treated with anti-TNF- α .

Disclosure of Interest: None declared

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AB0840

DETERMINATION OF SERUM LEVELS OF AND ANTI-DRUG ANTIBODY PRODUCTION AGAINST TNF INHIBITORS IN ANKYLOSING SPONDYLITIS: TESTING MAY BE USEFUL FOR THE ASSESSMENT OF COMPLIANCE BUT NOT THAT OF TREATMENT EFFECTIVENESS

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Background: Targeted therapies, such as TNF-alpha inhibitors revolutionised the treatment of spondyloarthritis including ankylosing spondylitis (AS).

Objectives: To determine the correlation between serum TNF-alpha inhibitor levels of patients receiving biological therapy and concentration of anti-drug antibodies, disease activity (treatment effectiveness), age of patients and elapsed time since the onset of the diagnosis and from the initiation of the therapy.

Methods: Serum levels of TNF-alpha inhibitors (mg/ml) and concentration of anti-drug antibodies (AU/ml) were measured in 37 AS patients. Altogether 12 patients were treated with infliximab (IFX), 15 received adalimumab (ADA) and 10 received etanercept (ETN). Demographic data and parameters measuring disease activity (BASDAI) were also included in the analysis.

Results: A strong negative correlation was found between the concentration of anti-drug antibodies and drug serum levels (IFX: $R^2=0.833$; ADA: $R^2=0.426$; ETN: $R^2=0.587$). On the other hand, similar correlation could not be demonstrated between serum concentrations of IFX, ADA or ETN and other factors, such as age of the patient (IFX: $R^2=0.050$; ADA: $R^2=0.090$; ETN: $R^2=0.016$), BASDAI (IFX: $R^2=0.099$; ADA: $R^2=0.071$; ETN: $R^2=0.015$), disease duration (IFX: $R^2=0.024$; ADA: $R^2<0.001$; ETN: $R^2=0.182$) and time since the initiation of therapy (IFX: $R^2=0.008$; ADA: $R^2=0.052$; ETN: $R^2=0.062$).

Conclusions: As anti-TNF-alpha antibodies decrease the serum concentration of TNF inhibitors. In our study, drug serum levels and anti-drug antibody concentrations significantly correlated with each other. However, similarly to some other reports, drug levels did not correlate with treatment efficacy. Therefore, routine assessment of serum drug and anti-drug antibody levels should not be recommended in the everyday practice in order to determine treatment effectiveness. However, the parallel evaluation of drug and anti-drug antibody levels may be effectively used in order to determine patient compliance in the case of subcutaneously administered drugs.

Disclosure of Interest: None declared

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AB0841

ASSESSMENT OF RELATIONSHIP BETWEEN LONELINESS, PERCEIVED SOCIAL SUPPORT, DEPRESSION AND MEDICATION ADHERENCE IN ANKYLOSING SPONDYLITIS PATIENTS

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Background: Ankylosing spondylitis (AS) is a chronic, progressive, inflammatory disease which can cause labour loss and deformities and requiring long-term treatment. Loneliness, perceived social support, depression, patients' beliefs about medicines and treatment may affect their medication adherence and treatment success.

Objectives: In this study, we aimed to investigate the relationship between loneliness, perceived social support, depression and medication adherence in AS patients.

Methods: This cross-sectional study was conducted in a tertiary rheumatology outpatient clinic. One hundred and nineteen AS patients were enrolled to the study. The socio-demographic and clinical features of the patients agreeing to participate were recorded to the "Patient Assessment Form". The patients' disease activity and functional status were determined with the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), and the Bath Ankylosing Spondylitis Functional Index (BASFI), respectively. The pain and global assessment of the patients' were assessed with a numerical visual analogue scale (nVAS; 0–10 cm). The medication adherence of the patients was assessed with the Morisky Green Levine Scale (MGLS). The UCLA Loneliness Scale, the Multidimensional Scale of Perceived Social Support (MSPSS) and the Beck Depression Inventory (BDI) were used to determine loneliness, perceived social support, and depression of the patients.

Results: One hundred five patients (88.2%) were male, the mean age was 35.80 ± 9.08 years, and the mean disease duration was 9.88 ± 6.34 years. The mean BASDAI, BASFI and patient global assessment scores were; 4.57 ± 2.63 , 3.23 ± 2.76 , and 4.13 ± 3.23 , respectively. According to the MGLS medication adherence groups, patients with low medication adherence had higher BASDAI, spinal pain, spinal pain at night, fatigue and patient global assessment scores and had lower mean ages ($p<0.05$). Among the MGLS medication adherence groups, patients with low medication adherence had lower MSPSS scores, and had higher UCLA Loneliness Scale and Beck Depression Inventory scores ($p=0.037$, $p<0.001$, $p=0.022$, respectively) (table 1).