Objectives: We conducted a retrospective study of the incidence of falls in patients with RA, who are more prone to fractures and falls, using fall risk medications, especially hypnotics and anxiolytics, which aimed to determine the relationship between falls and fall risk medications in patients with RA.

Methods: This study is a retrospective cohort study conducted in Showa University Hospital between December 1, 2019 and March 31, 2020. We included RA patients who visited the outpatients and fulfilled the American College of Rheumatology (ACR)/European League against Rheumatism (EULAR) classification 2010 criteria. The main exposure was the fall risk medication. The fall risk medication group was defined as RA patients who were prescribed fall risk medication (sedative/hypnotic, antidepressants, antipsychotics, and anxiolytic (benzodiazepines) drugs) for all the observational period. The comparison group was defined as RA patients who had never been prescribed any fall risk medications. Outcome measure was the prevalence of fall incidents in the past one year, obtained by using questionnaires to patients. Logistic regression analysis was performed to investigate the relationship between the prevalence of fall incidents and the use of fall-risk medications. The co-variables we selected were as follows: age, sex, stroke, dementia, diabetes and osteoarthritis as covariates.

Results: We obtained data from 331 patients, of which 303 were included in the analysis. Among the 303 patients, the median age was 67 years (56-75), and 78.5% were women. Of the 303 patients, 45 patients used fall risk medication and 69 patients experienced at least one fall in a year. Of the 45 patients who used fall risk medication, 18 patients experienced at least one fall in a year. Of the 69 patients who experienced falls, 30 patients experienced twice or more falls in a year. Of the 18 patients who used fall risk medication and experienced falls, 9 patients experienced twice or more falls. 4 patients were admitted to the hospital as result of falls, 2 patients used fall risk medication. These results are shown as percentages in Figure 1. The group of fall risk medication was significantly higher than using non fall risk medication. (adjusted odds ratio (AOR) 2.31, 95% Confidence Interval (CI) 1.14-4.68, p=0.02).

Figure 1.

Conclusion: Use of fall risk medications may have increased falls for patients with RA.

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Disclosure of Interests: None declared


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**AB0243**

ASSOCIATIONS BETWEEN JOINT DEFORMITY, DISEASE DURATION, DISEASE ACTIVITY, ACTIVITIES OF DAILY LIVING, QUALITY OF LIFE, PAIN, AND FATIGUE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Patient with rheumatoid arthritis (RA) have disease-related problems such as joint deformity, disease duration, disease activity, activities in daily life (ADL), quality of life, pain, and fatigue. All these problems correlate interactively.

Objectives: Aim of this study is to clarify association among these problems statistically using retrospective cohort data.

Methods: Patients with RA who were followed up more than three years were recruited. Their EuroQol-5th dimension (EQSD) as an indicator of quality of life (QOL), simplified disease activity index (SDAI) as an indicator of disease activity, Health Assessment Questionnaire Disability Index (HAQ) as an indicator of ADL, pain score using visual analog scale (PS-VAS), and fatigue score using visual analog scale (FS-VAS), were monitored every three months. Sharp/van der Heijde score (SHS) as an indicator of joint deformity was calculated annually. Association among average values of these factors and patient’s sex, age, disease duration (DD), and anti-citrullinated peptide antibodies (ACPA) titer were evaluated using multivariate linear regression analysis. Statistical significance was set within 5%.

Results: A total of 447 patients, in whom 120 male and 327 female included, were analyzed. Mean age, disease duration, EQSD score, SDAI score, HAQ score, SHS, PS-VAS, and FS-VAS during follow-up were 71.8-year-old, 12.9 years, 0.831, 4.26, 0.413, 46.9, 22.5, and 23.2, respectively.

EQSD score correlated significantly with age, HAQ score, SDAI score, SHS, PS-VAS, FS-VAS, and DD using univariate models. In these, age, HAQ score, and FS-VAS correlated significantly using multivariate model (correlation coefficients (CC): 0.927). HAQ score correlated significantly with age, EQSD score, SDAI score, SHS, PS-VAS, FS-VAS, and DD using univariate models. In these, EQSD score, SHS, and FS-VAS correlated significantly using multivariate model (CC: 0.910). SDAI score correlated significantly with female gender, EQSD score, HAQ score, SHS, PS-VAS, and FS-VAS using univariate models. In these, SDAI score and FS-VAS correlated significantly using multivariate model (CC: 0.685). PS-VAS correlated significantly with EQSD score, SDAI score, SHS, and FS-VAS using univariate models. In these, SDAI score and FS-VAS correlated significantly using multivariate model (CC: 0.732). FS-VAS correlated significantly with EQSD score, HAQ score, SDAI score, and SHS using univariate models. In these, EQSD score, HAQ score, and PS-VAS correlated significantly using multivariate model (CC: 0.715). ACPA did not correlated with any factors significantly.

Conclusion: These results suggested that EQSD score, namely QOL is influenced by various disease-related factors and aging, especially correlated with ADL and fatigue closely. The HAQ score, namely ADL level is influenced by fatigue level and joint deformity directly. The SDAI score, namely disease activity level correlated with pain level and joint deformity level, and correlates with the other factors indirectly. A schematic figure that represents relationships among factors were shown in Figure 1. These information would be beneficial for conducting treatment protocol of RA.

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**AB0244**

MEDICATION ADHERENCE AND BELIEFS ABOUT MEDICATION IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Consistent immunosuppressive treatment of rheumatoid arthritis (RA) with disease-modifying anti-rheumatic drugs (DMARDs) is crucial for reduced progression and improved long-term outcome of the disease. Therefore, drug adherence is a prerequisite, which is often insufficient according to literature.

Objectives: Our aim was to investigate the relationship between adherence and beliefs about medication in patients with RA.
Methods: The study included 137 RA patients (102 female, 35 male; age range 28-86 years, Ø 64.8 ± 12.6 years; SDAI Ø 9.9 ± 6.8; 61 % DMARD monother-apy, 31 % DMARD combination therapy, 8 % currently treated without DMARD). Medication adherence was measured with the Compliance-Questionnaire-Rheu-matology (CQR). This is a self-report questionnaire with 19 items (4 response options each). The sum score is mapped to a scale from 0 to 100 % (CQR%), where 100 % corresponds to optimal adherence. A CQR% ≥ 80 % was defined as satisfactory adherence. In addition, the specific part of the Beliefs about Med-icines Questionnaire (BMQ) was used to assess patients’ opinions about the necessity of their medication therapy and their concerns. Besides correlational analyses (Spearman-Rho) multiple linear regression was applied to determine factors influencing adherence (coefficient of determination: adjusted R²).

Results: Adherence was satisfactory in 93 RA patients (67.9 %) and insufficient in almost one-third (n = 44, 32.1 %). Analyses showed that adherence was significantly related to belief in necessity (r = 0.46; p < 0.001) and concerns about drug side effects (r = 0.27; p < 0.001). Furthermore, it became apparent that adherence is closely linked to the age of the patient (r = 0.30; p < 0.001). Younger RA patients (< 60 years) had significantly lower CQR%-scores than older RA patients (≥ 60 years; p < 0.01). Belief in the necessity of therapy, medication concerns and patient age accounted for almost half of the patient-specific variability in adherence (each p < 0.001; R² = 42.9 %), suggesting a strong dependence of adherence on these three factors.

Conclusion: Adherence is insufficient in about one-third of RA patients. Addi-tionally, adherence appears to be strongly dependent on the patient’s belief in the necessity of therapy, medication concerns and age. Physicians should strive for adherence on these three factors.

Disclosure of Interests: None declared

References:

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AB0246 EXAMINATION OF THE FACTORS CONSTITUTING DEPRESSIVE STATE IN RA-PATIENTS AND THEIR ASSOCIATIONS.

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Background: About 15% of patients with rheumatoid arthritis (RA) have depression, with an odds ratio of 1.42 (95% CI: 1.3-1.5) compared with healthy controls. In previous reports, depressed mood and sleep disorders were reported separately, and no report has examined the factors that constitute depression. In addition, there is no report that examines the relationship between them.

Objective: In the present study, we investigated the factors that constitute depression in RA patients.

Methods: One hundred and twenty-four patients with RA attending Showa University Hospital who gave written consent to the study were included in the study. Age, gender, body mass index, smoking history, presence of hypertension, presence of diabetes, steroid use, methotrexate use, enoxymuce sedimentation rate, CRP, and serum MMP-3 levels were investigated. The simplified disease activity index (SDAI) was used to assess disease activity in RA, the health assessment questionnaire disability index (HAQ-DI) was used to assess activity of daily living, and the Hamilton depression rating scale (HAMD) was used to assess depression. All patients were interviewed for the HAM-D by the same interviewer, and the relationship between SDAI and HAQ-DI was examined.

Results: Forty-two patients (33.9%) reported experiencing “Depressed mood.” On the other hand, a higher percentage of patients reported “Anxiety Somatic” (79, 63.7%), “Somatic Symptoms General” (69, 55.6%), “Work and Activities (57, 46.0%)” “Hypochondriasis (53, 42.7%),” and “Genital Symptoms (49, 36.5%)” than depressed mood. Depressed mood” was correlated with SDAI (r = 0.31) and HAQ-DI (r = 0.26), while “Somatic Symptoms General” was correlated with SDAI (r = 0.30) and HAQ-DI (r = 0.29). “Somatic Symptoms General” correlated with SDAI (r = 0.30) and HAQ-DI (r = 0.29). “Anxiety Somatic” correlated only with age (r = 0.24), and other factors showed no correlation.

Conclusion: Higher percentage of RA patients reported “Somatic Symptoms” than “Depressed mood” as a factor of depression. These factors were mildly correlated with RA disease activity and HAQ-DI.

Disclosure of Interests: None declared

AB0247 THE ROLE OF AUTOIMMUNITY ON THE RELATION BETWEEN EROSIONS AND BONE MINERAL DENSITY IN RHEUMATOID ARTHRITIS: A CLINICAL RESEARCH

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Background: Rheumatoid arthritis (RA) is the most frequent chronic inflammatory rheumatism. It is characterized by peripheral articular destruction and it is...