Abstract THU0108 – Figure 1. Concordance between physician- and patient-DAS-28 using the Bland and Altman method.

The physician-patient DAS-mean is plotted on the X-axis. The physician-patient DAS-difference is plotted on the Y-Axis. The horizontal black line corresponds to the mean DAS difference (-0.09 [95% CI -0.14; -0.04]). The horizontal blue lines correspond to ± 1.96 SD. The vertical red line corresponds to the DAS-28 cut-off for remission (2.6).

Disclosure of Interests: None declared

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Rheumatoid arthritis – comorbidity and clinical aspects

THU0109 INCREASED MODIFIED HEALTH ASSESSMENT QUESTIONNAIRE (MHAQ) SCORE IS INDEPENDENTLY ASSOCIATED WITH HIGH RISK OF SEVERE INFECTION IN RHEUMATOID ARTHRITIS (RA) PATIENTS

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Background: Severe infections that complicate rheumatoid arthritis may cause significant morbidity and mortality. The Modified Health Assessment Questionnaire (MHAQ) is one of the scores most used for measuring the functional status of rheumatoid arthritis (RA) patients. However, the relationship between the MHAQ score and severe infection risk has not been well studied [1].

Objectives: To examine the relationship between disease-associated functional status (MHAQ) and severe infection events (SIE) in rheumatoid arthritis patients.

Methods: We used data from the “MiRAi” cohort in Japan. In total, 2174 RA outpatients were examined at the Osaka Minami Medical Center between January 2012 and October 2017. The risk factors were identified and evaluated by multivariate logistic regression, linearity analysis. Interactions of SIE risk between MHAQ and treatment were also observed.

Results: The cohort contributed to 8206 patient-years of follow-up. Overall, 251 SIEs were observed and the incidence of SIE was 3.0 infections per 100 patient-years. The mean age at first observation was 61.7 years and the mean disease duration was 10.3 years. The use of glucocorticoids (GCs), methotrexate (MTX), and biologic and targeted synthetic disease-modifying antirheumatic drugs (bDMARDs/tsDMARDs) was 59.2%, 63.8%, and 40.3%, respectively. The mean Clinical Disease Activity Index (CDAI), Simplified Disease Activity Index (SDAI), Disease Activity Scores of 28 joints (DAS28), and MHAQ at first observation were 9.76 ± 6.39 , 10.1 ± 6.87 , 2.67 ± 0.96 , and 0.43 ± 0.58 , respectively. Disease duration, the MHAQ score, and prednisolone dose ($p = 0.015$, 0.007 , and <0.001 , respectively) were significantly associated with SIE risk (Figure). Age, sex, stage, bDMARDs/tsDMARDs use, DAS28-CRP, and MTX dose (mg/week) did not predict a significant increase in SIE. The risk of SIE increased linearly with the MHAQ. The SIE risk increased rapidly from 0 to 5 mg of prednisolone, and then increased gradually over 5 mg. The SIE risk peaked at around 20 years disease duration. No significant interaction between MHAQ and bDMARDs/tsDMARDs or glucocorticoid use were observed ($p = 0.307$, 0.282 , respectively).

Conclusion: An increased MHAQ score was linearly associated with SIE, and did not show significant interactions with bDMARD/tsDMARD use or the oral glucocorticoid dose. Therefore, the MHAQ score is considered to be a strong, independent risk factor for infection in RA patients.

Abstract THU0109 – Figure 1.

REFERENCE:

- [1] Yamanaka H, Asklung J, Berglund N, Franzen S, Frisell T, Garwood C, Greenberg JD, Ho M, Holmqvist M, Novelli Horne L, et al: Infection rates in patients from five rheumatoid arthritis (R017, 3(2):e000498A) registries: contextualising an RA clinical trial programme. *RMD Open* 2017, 3(2): e000498.

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THU0110 DISEASE ACTIVITY AND PATIENT-REPORTED OUTCOMES IN PATIENTS WITH RA WITH SJÖGREN'S SYNDROME ENROLLED IN A LARGE OBSERVATIONAL US REGISTRY

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Background: Sjögren's syndrome (SS) is known to occur secondary to RA diagnosis, but its impact on RA outcomes is poorly understood. In the US-based Corrona registry, SS has a prevalence rate of 0.30 in patients (pts) with RA.¹

Objectives: To compare disease activity and patient-reported outcomes (PROs) in pts with and without SS, in a national sample of pts with RA.

Methods: We identified adult pts with rheumatologist-diagnosed RA from a large observational US registry (Corrona RA), with at least one visit with known SS status between 22 Apr 2010 and 31 Jul 2018 and a visit 12 (± 3) months after index date. SS status was captured using physician forms at enrollment and follow-up visits. The index date was the date of first capture of SS diagnosis, or first visit in which SS status was recorded for pts without a diagnosis of SS (non-SS pts). Both those with and without SS were required to have initiated a targeted synthetic (ts) or biologic (b)DMARD. Non-SS pts had to be enrolled for ≥ 12 months. Pts were frequency matched 1:1 based on RA duration prior to 1:1 propensity score matching (PSM) based on variables associated with treatment response. Outcomes 12 months after index visit were compared in pts with and without SS. Primary outcome was mean change in CDAI score from index visit to Month 12; secondary outcome was mean change in PROs (pain, fatigue, pt global assessment and morning stiffness).