Conclusions: Work impairment is highly prevalent in contemporary rheumatoid arthritis patients. It is significantly correlated with mental health, even after adjusting for disease severity factors. Baseline mental health also predicts progression of work impairment. The relationship is likely bidirectional, and future research is justified to evaluate whether mental health interventions could improve work outcomes.

Disclosure of Interest: None declared

THU0101 TISSUE METABOLITE OF TYPE I COLLAGEN, C1M, AND CRP PREDICTS STRUCTURAL PROGRESSION OF RHEUMATOID ARTHRITIS

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Background: Biomarkers of rheumatoid arthritis (RA) disease activity typically measure inflammation or autoimmunity (e.g. CRP, rheumatoid factor (RF)). Another class of biomarkers are structural proteins of the joint, C1M and C3M, metabolites of type I and III collagen, and are such biomarkers. These biomarkers have previously been documented to provide additional value as compared to standard inflammation biomarkers, for prognosis and prediction of response to treatment1.

Objectives: We investigated the relationship of high serum levels of C1M or C3M to radiographic progression, and benchmarked to CRP levels and RF status, demonstrated to be associated with structural progression2.

Methods: Placebo treated patients of the OSK123 studies (Ph3 clinical trials testing efficacy of tofacitinib) with baseline serum biomarkers C1M, C3M, CRP and RF were included (n=214). Van der Heijde mTSS was calculated at baseline and 24 week (n=194, 264). Progression was defined as moderate or rapid (>=0.5 or >5 mTSS units/year). Patients were divided into subgroups: low, high or very high C1M, C3M and CRP (above/below median and highest quartile), or RF negative, positive and high positive (>110 U/L). Difference in clinical parameters were analysed by Mann-Whitney/Chi-squared tests, and multivariate predictive calculations with Classification And Regression Tree analysis including covariates (age, BMI, gender and disease activity assessment scores).

Results: High C1M, C3M and CRP levels were significantly associated with measures of disease activity (p<0.05) and patient reported scores (p<0.05). RFpos was also associated with disease active scores (p<0.05), RFneg and CRP (p<0.001), as well as C1M and C3M (p<0.05), were significantly associated with mTSS at baseline. For prognostic measures, there were 2.5 and 4-fold as many rapid progressors in the C1Mhigh and CRPhigh (p<0.05), and in the C1Mveryhigh and CRPveryhigh groups (p<0.001) compared C1Mlow and CRPlow respectively. C1M and CRP performed similarly in the predictive analysis with AUCs of 0.67 and 0.69 (table 1). The best model involving C1M in predicting rapid progressor included BMI, SJJC and HAQ (AUC 0.85), whereas the best model for CRP included CRP, BMI, SJJC and HAQ (AUC 0.85). C3M and RF did not provide prognostic value.

Conclusions: Of the four markers analysed only C1M and CRP were associated with structural progression. They seem to perform equally well, but reflect two different aspect of disease pathogenesis (tissue turnover vs. inflammation), thus may provide individual, but supplementary, information. These simple measures may be important for enrichment of clinical trials with structural progressors.

REFERENCES:


THU0102 HIGH RATES OF RESIDUAL DISEASE ACTIVITY DESPITE CURRENT THERAPIES IN A REAL LIFE RHEUMATOID ARTHRITIS COHORT: DATA FROM 1096 PATIENTS


Background: Despite current therapies in a real life rheumatoid arthritis (RA) cohort, disease activity tends to be high in patients with long duration of disease, irrespective of biologic or conventional diseasemodifying anti-rheumatic drugs (bDMARDs) monotherapy or polytherapy with or without concomitant non-biologic DMARDs. Large multicenter longitudinal cohorts are therefore needed to enrich the evidence with structural progressors.

Objectives: To study the longitudinal changes in disease activity in a large, real life, longitudinal RA cohort.

Methods: Multicenter (11 hospitals, 3 private offices), prospective, RA epidemiological study in Greece. Demographics, disease characteristics, treatments and co-morbidities were collected via a web-based platform in registered patients at baseline and one year after their 1st visit.

Results: Among 2096 RA patients with available paired evaluations one year apart (mean interval: 13.4±3.6 months) were included (women: 78%, mean age: 62.8 years, mean disease duration: 11 years, RF and/or anti-CCP positive: 60%, mean HAQ: 0.44±0.56). At baseline, 50% (n=548) of patients were on conventional DMARDs (csDMARDs) alone, 35% on cs- and b-DMARD combination (n=379) and 11% on bDMARD monotherapy (n=124). Among bDMARD treated patients, 60% were

References: