Parameter	Estimate (95% CI)	P-value
Smoking (vs non-smoking)	0.60 (0.19 to 1.00)	0.01
Subcutaneous MTX administration route (vs oral)	-0.17 (-0.40 to 0.05)	0.13
MTX dose (mg/week)	-0.01 (-0.02 to -0.00)	0.00
bDMARD use (vs no bDMARD use)	0.45 (0.19 to 0.70)	0.00
DAS28 at baseline	0.36 (0.22 to 0.50)	0.00
Time	-0.25 (-0.27 to -0.23)	0.00
Time ²	0.01 (0.01 to 0.01)	0.00
BMI (mg/kg ²)	0.03 (-0.02 to 0.07)	0.26
Female gender (vs male)	-0.48 (-0.86 to -0.10)	0.02
Negative RF test status (vs positive)	-0.22 (-0.60 to -0.16)	0.25

Outcome measure: DAS28 over 2 years; CI: confidence interval; MTX: methotrexate; bDMARD: biological disease modifying anti-rheumatic drug; BMI: body mass index; RF: rheumatoid factor. A positive estimate reflects a higher DAS28 over time, corrected for baseline DAS28, and thus a lesser effect of the concomitant prednisone therapy

Conclusions: To our knowledge, this is the first time that smoking is shown to be a negative predictor for clinical response to pred in RA patients. Cessation of smoking needs to be encouraged in patients initiating bDMARDS, MTX and pred and in those already on these drugs

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THU0120 VITAMIN D IN INDIVIDUALS BEFORE ONSET OF RHEUMATOID ARTHRITIS – RELATION TO VITAMIN D BINDING PROTEIN AND ITS ASSOCIATED GENETIC VARIANTS

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Background: Vitamin D has been implicated as being involved in the aetio-pathogenesis of several autoimmune diseases including rheumatoid arthritis (RA). Previous studies present contradictory results. Vitamin D binding protein (DBP), the major transport protein, is also involved in various inflammatory processes.

Objectives: The aim of this study was to investigate the relationship between circulating levels of 25-hydroxyvitamin D [25(OH) D], DBP and polymorphisms in group-specific component (GC) in pre-symptomatic individuals and matched controls within prospective cohorts of the Northern Sweden.

Methods: Blood samples donated to the Medical Biobank prior to the onset of symptoms of RA (n=515, mean [SD] time before the onset of symptoms 6.2 [9.3] years) and from matched (2:1) population-based controls (n=267) were used. Plasma 25(OH) vitamin D levels were analysed using liquid chromatography tandem-mass spectrometry and DBP levels were analysed using enzyme-linked immunosorbent assay. GC polymorphisms (rs4588 and rs7041) were analysed with TaqMan assays (Applied Biosystems).

Results: Levels of 25(OH) D or DBP were not statistically different between pre-symptomatic individuals and controls in a crude, or a multiple-adjusted logistic regression model. However, an increased risk for future RA was found in females of DBP (OR 1.0001 [95%CI 1.000–1.0003]), adjusted for carriage of the minor allele of rs4588, in a multiple-adjusted model (p<0.05).

Conclusions: This study indicated that vitamin D is not associated with the future risk of RA although increasing levels of DBP were however, associated with an increased risk of disease in females carrying the minor allele of a DBP encoding SNP.

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Disclosure of Interest: None declared

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THU0121 MORTALITY RATE AND PREVALENCE OF CARDIOVASCULAR DISEASE IN RHEUMATOID ARTHRITIS: 5-YEAR KARRA PROSPECTIVE STUDY

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Background: Rheumatoid arthritis (RA), which is an autoimmune chronic arthritis, leads to elevated rates of disability and mortality.

The main causes of mortality identified among RA patients are increased incidences of cardiovascular (CV) disease, which accounts for one-third to one-half of the premature deaths, infection and cancer.

In our previous study, we identified that cumulative inflammatory burden contributes to the development of carotid atherosclerosis through a synergistic interaction with conventional CV risk factors in patients with RA.

During the 2 years follow-up period, the mortality rate was 2.4% (10/412), and the main causes of death were infection (4/10) and CV disease (3/10).

Objectives: To investigate the incidences of mortality and CV disease in patients with RA in the 5 year Kyungpook National University Hospital Atherosclerosis Risk in Rheumatoid Arthritis (KARRA) prospective study.

Methods: A total of 372 patients with RA and 162 healthy controls were followed up for 5 years or until deaths in a prospective KARRA cohort study (412 patients and 221 controls at baseline).

To detect the presence and progression of carotid atherosclerosis, we performed carotid ultrasound at baseline and 5 year.

We analysed the incidence of CVD, conventional CV risk factors, RA disease activity and severity markers, medication histories, mortality rate, and causes of death.

Results: During 5 year follow-up period, the mortality rate was 10.7% (44/412) in RA patients and 1.4% (3/221) in healthy controls (p<0.001), while the incidence of CVD were 11.4% (47/412) in RA patients and 0.9% (2/221) in healthy controls (p<0.001).

Among CVD in RA patients, cerebrovascular accident (CVA) and cardiovascular event (CVE) were 17 (36.2%) and 30 (63.8%) events, respectively.

Major causes of death included infection (21/44, 47.7%), CVD (12/44, 27.3%), and others (11/44, 25%).

The mean age, presence and number of carotid plaques, functional class, modified Korean version of the HAQ (mKHAQ), tender joint count (TJC), swollen joint count (SJC), ESR and CRP, and conventional CV risk factors at baseline and cumulative ESR (ESR area under the curve), DAS28-ESR and DAS28-CRP at year 5 were significantly associated with mortality in RA patients.

Multivariate logistic regression analysis showed that the presence of carotid plaque (OR 6.22 [95% CI 1.08–24.99; p=0.031]), mKHAQ (OR 1.04 [95% CI 1.01–1.12; p=0.014]), and ESR (OR 1.09 [95% CI 1.03–1.16; p<0.001]) at baseline and cumulative ESR (ESR area under the curve) (OR 1.047 [95% CI 1.01–1.13; p=0.048]) and DAS28-ESR (OR 1.55 [95% CI 1.08–2.21; p=0.016]) at year 5 were independent risk factors for mortality of RA patients.

Conclusions: During the follow-up period of 5 years, the mortality rate and prevalence of CV disease were significantly increased in RA patients, compared to the controls. Furthermore, main causes of death were infectious disease and CV disease. Furthermore the risk factor for CVD and mortality is carotid plaque which is determined by disease activity and CV risk factors.

Disclosure of Interest: None declared

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THU0122 IMAGING CHARACTERISATION OF REMISSION IN RHEUMATOID ARTHRITIS

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Background: Remission in rheumatoid arthritis (RA) is now achievable in a significant proportion of patients using a combination of a treat to target strategy and biologic therapy. A number of clinical assessment tools exist for assessing remission. Several reports have shown that ultrasound (US) may have a role in better characterising this group of patients suggesting that subclinical synovitis increases the risk of erosive disease and flares in patients in DAS28 remission.^{1–3}