Several studies revealed that RA is associated with systemic bone loss, and long-term glucocorticoid therapy is also known to affect CV events as well as bone health such as osteoporosis.

Especially in postmenopausal women, the prevalence of osteoporosis and its complications are important medical issues.

Objectives: In the present study, we investigated the bone mineral density (BMD) for the carotid plaque formation in RA patients in the Kyungpook National University Hospital Atherosclerosis Risk in Rheumatoid Arthritis (KARRA) cohort study.

Methods: After a baseline evaluation for KARRA enrollment, RA patients were prospectively followed up for 5 years or until deaths.

We analysed the demographic findings, conventional CV risk factors and RA disease activity.

Carotid ultrasound at baseline and year 5 was performed to evaluation of the intima-medial thickness (IMT) and presence and progression of carotid plaque.

A total 323 patients (272 female) with RA, who performed dual-photon x-ray absorptiometry and carotid ultrasound, were included.

We assessed disease activity of RA, risk factors for atherosclerosis including hypertension, diabetes mellitus and dyslipidemia, presence of carotid plaque, BMD and cumulative glucocorticoid doses.

Results: A total of 417 RA patients were included in the baseline KARRA cohort, and 327 patients with RA were followed for the 5 year period.

Of the 417 baseline RA patients, 212 patients had no carotid plaque. At year 5, new carotid plaque formation was found in 91 of 214 patients who underwent BMD examination.

The BMD in the l-spine, femur, and radius was significantly lower in patients with carotid plaques (n=154), compared to patients without plaques (n=172) (1.016 g/cm²±0.22 vs. 1.066±0.18, p=0.013 for l-spine; 0.817±0.15 vs. 0.865±0.14, p<0.001 for femur; 0.542±0.14 vs. 0.605±0.13, p<0.001 for radius).

In postmenopausal patients, the BMD was significantly lower in carotid plaque group (n=93) than non-plaque group (n=109) (0.962±0.171 vs. 1.056±0.174, p<0.001 for L spine; 0.780±0.14 vs. 0.857±0.12, p<0.001 for femur; 0.502±0.110 vs. 0.593±0.112, p<0.001 for radius).

The cumulative steroid dose was confirmed in postmenopausal female patients, and the glucocorticoid dose was correlated with new carotid plaque formation. (r=0.334, p=0.04). Multivariate logistic regression analysis revealed that but radius BMD (p=0.04) was independent risk factors for new carotid plaque formation during the 5 year followed period after correlation with cumulative glucocorticoid dose, but l-spine (p=0.06) and femur BMD (p=0.07) were not statistically significant.

Conclusions: This study shows formation of new plaques after long-term follow-up depends on the juxta-articular bone health in postmenopausal RA patients.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6694

THU0161

TRENDS IN THE INCIDENCE OF AMYLOIDOSIS IN PATIENTS WITH RHEUMATOID ARTHRITIS IN SPAIN: AN OBSERVATIONAL COHORT STUDY OF HOSPITAL DISCHARGES FROM 1999 TO 2015 (TREND-AR STUDY)

J.L. Morell Hita¹, R. Mazzucchielli², E. Perez Fernandez³, J. Quiros², C. Macía Villa⁴, N. Crespi⁵, M. Peña², C. Barbadillo⁶, M. Espinosa⁶, H. Godoy⁶, M. Fernandez Prada⁷, M. Galindo⁸, A. Garcia Vadillo⁹, O. Guzon Illescas², A. Herranz¹⁰, C. Martinez Prada¹¹, C. Morado Quiñoa¹¹, V. Villaverde¹², on behalf of TREND-AR. ¹Rheumatology, Hospital Universitario Ramón y Cajal;

²Rheumatology; ³Hospital Universitario Fundación Alcorcón; ⁴Rheumatology, Hospital Universitario Severo Ochoa; ⁵CS La Rivota; ⁶Rheumatology, Hospital Universitario Puerta de Hierro, Madrid; ⁷Rheumatology, Hospital Universitario de Guadalajara, Guadalajara; ⁸Rheumatology, Hospital Universitario Doce de Octubre; ⁹Rheumatology, Hospital Universitario La Princesa; ¹⁰Rheumatology, Hospital del Henares; ¹¹Rheumatology, Hospital Universitario Clínico San Carlos; ¹²Rheumatology, Hospital Universitario Móstoles, Madrid, Spain

Background: Treatment and evolution of Rheumatoid Arthritis (RA) have had an important change in the last years. However the trend of amyloidosis, habitually related to long-standing and active RA, in Spain is unknown.

Objectives: To analyse the incidence and trend of hospital admissions for amyloidosis in RA patients in Spain from 1999 to 2015.

Methods: We performed an observational retrospective population study analysing the Spanish administrative database that includes a Minimum Basic Data Set (MBDS) of hospital admissions of RA patients from 1999 to 2015. We selected the MBDSs for amyloidosis. Cases were identified by the presence in primary and secondary diagnosis of its ICD9 code. The population at risk was estimated with an estimated prevalence of RA of 0.5% (0.8% women and 0.2% men). Crude and adjusted rates were calculated, and the trend was analysed using the Generalised Linear Model (GLM) with the year as the analysis variable. SPSS version 20 (SPSS Inc, Chicago, IL) was used.

Results: 338.343 RA hospital admissions were detected, being 3085 (0.9%) due to amyloidosis with 2298 (74.5%) women and 787 (25.5%) men. Mean age 65.42 (SD 13.08). There were 366 (11.9%) deaths. Age-adjusted rate during the period was 122.87/10⁵ inhab. per year (98.96 women and 146.79 men). Amyloidosis age-adjusted rate decreased from 138.88/10⁵ inhab. per year in 1999 to 71.47 in 2015, both women (128.18 in 1999 to 61.35 in 2015) and men (162.36 in 1999 to 107.95 in 2015). An annual decrease in the amyloidosis rate of 4.6% is estimated (RRI 0.953; CI 95% 0.939–0.968).

Conclusions: In Spain from 1999 to 2015 amyloidosis hospital admissions in patients with RA decreased, with an estimation of 4.6% annual reduction. This finding concurs with a greater knowledge of RA and its treatment advances with "treat-to-target" strategies.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4812

THU0162

RESIDUAL SYNOVITIS IN ANKLES AND FEET DETECTED BY ULTRASONOGRAPHY IN PATIENTS WITH RHEUMATOID ARTHRITIS

J. Inamo, Y. Kaneko, K. Sakata, T. Takeuchi. Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan

Background: Twenty eight joints that are usually evaluated for disease activity score of rheumatoid arthritis (RA) do not include ankles and metatarsophalangeal joints. Although foot synovitis of patients in remission is clinically important in that it associates to relapse and worse physical function,¹ composite markers without an assessment of foot have demonstrated poor performance in detecting foot synovitis.²

Objectives: The aim of this study was to investigate the frequency and impact of residual synovitis in ankles and feet in patients with RA.

Methods: Patients with RA who underwent both physical examination and ultrasonography (US) on 44 joints including hands, fingers, ankles, and metatarsophalangeal joints between April 2016 and January 2018 in Keio University Hospital were enrolled. We compared patients with swollen joints of feet and ankles and those without, and then analysed those who did not have swollen joints by physical examination but were detected to have synovitis by US.

Results: Sixty one patients were enrolled in the study. The mean age was 58.5 years old, the disease duration was 7.1 years, and 85% were female. Among them, 21 patients had joint swelling in feet and ankles and 40 patients did not by physical examination. The patients in the former group showed significantly higher disease activity (DAS28 4.0 vs 2.4, p<0.05), higher doctor visual analogue scale (VAS, 33 vs 8 mm, p<0.05) and higher serum matrix metalloproteinase (MMP)–3 (165 vs 51 mg/dL, p<0.05). In the 40 patients with no swollen joints in ankles and feet by physical examination, 24 (60%) had active synovitis detected by US in those joints (US positive group) and the other 16 patients showed no synovitis in ankles and feet by US (US negative group). Whereas age and disease duration were not different between two groups, body mass index tended to be higher in the US positive group than the US negative group. Although the majority of both groups were in remission according to DAS28, fewer patients in the US positive group achieved remission according to Boolean criteria (29% vs 63%, p<0.05). The residual disease activity in ankles and feet was reflected in pain visual analogue scale most sensitively (33 mm vs 9 mm, p<0.05). The discordance in global assessments between patient and estimator of more than 30 mm was significantly frequent in the US positive group than the US negative group (33% vs 6%, p<0.05).

Conclusions: The residual synovitis in ankles and feet did not reflect in remission criteria by DAS28 but did by Boolean criteria. It caused a discordance in global assessments between patient and estimator.

REFERENCES:

- [1] Wechalekar MD, Lester S, Hill CL, Lee A, Rischmueller M, Smith MD, Walker JG, Proudman SM. Active Foot Synovitis in Patients With Rheumatoid Arthritis: Unstable Remission Status, Radiographic Progression, and Worse Functional Outcomes in Patients With Foot Synovitis in Apparent Remission. *Arthritis Care Res (Hoboken)* 2016;68(11):1616–1623.
- [2] Wechalekar MD1, Lester S, Proudman SM, Cleland LG, Whittle SL, Rischmueller M, Hill CL. Active foot synovitis in patients with rheumatoid arthritis: applying clinical criteria for disease activity and remission may result in underestimation of foot joint involvement. *Arthritis Rheum* 2012;64(5):1316–22.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3381