

psoriatic arthritis (PsA). However, these findings are mainly based on materials from an era of less active treatment of the IJD's and thus progress in this theory may have happened. Further, many cases fail to fulfil any classification criteria. We found no published data on CV risk in unspecified arthritis (UA).

Objectives: To investigate the association between the five most common IJDs and CHD based on a nationwide large register data in Finland during 2000–14.

Methods: From the register maintained by the Social Insurance Institution (SII), we collected data on all Finnish patients granted a new special reimbursement (SR) on medications for the following IJDs during 2000–14: seropositive RA (ICD10 code M05), seronegative RA (M06), UA (M13), spondyloarthritis (SpA) (M45–46), and PsA (L40). For these patients, Population Register Centre matched three controls, standardized for age, sex, and place of residence. The index date was determined to be the date when the SR for IJD came effective. From the case and control groups we analysed the frequency of individuals that had SR also for CHD (ICD10 codes I20–25) at the index date, or to whom it was granted by SII during the observation period.

Results: Altogether 201 776 individuals (50 444 cases and 151 332 controls) were identified. The frequencies of the individuals having CHD by the index date and the incidences of CHD during follow-up are presented in table 1.

Conclusions: Compared to general population, CHD was overrepresented at RA diagnosis, especially in seropositive men and seronegative women, while other patients had comparable rates of CHD with the population. After the index date, the incidence of CHD was increased in all patient groups except for men with seronegative RA and women with seropositive RA or SpA. Thus, the CV risk associated to IJDs remains in this millennium, and also pertains to UA.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2027

THU0164 **SUBCLINICAL ATHEROSCLEROSIS AND CARDIOVASCULAR EVENTS IN ITALIAN PATIENTS WITH RHEUMATOID ARTHRITIS: RESULTS FROM MULTICENTER GIRRCS (GRUPPO ITALIANO DI RICERCA IN REUMATOLOGIA CLINICA E SPERIMENTALE) STUDY**

P. Ruscitti¹, D.P.E. Margiotta², L. Navarini², F. Macaluso³, D. Iacono⁴, F. D'Onofrio⁵, G. Emmi⁶, F. Atzeni⁷, M. Prete⁸, F. Perosa⁹, P. Sarzi-Puttini⁷, L. Emmi⁶, F.P. Cantatore⁵, G. Triolo³, R. Giacomelli¹, G. Valentini⁴.
¹Rheumatology Section, Department of Biotechnological and Applied Clinical Science, University of L'Aquila, L'Aquila; ²Clinical Medicine and Rheumatology Department, Campus Bio-Medico University of Rome, Rome; ³Rheumatology Section, Department of Internal Medicine, University of Palermo, Palermo; ⁴Rheumatology Section, Department of Clinical and Experimental Medicine, Second University of Naples, Naples; ⁵Rheumatology Section, Department of Medical and Surgical Sciences, University of Foggia Medical School, Foggia; ⁶Department of Experimental and Clinical Medicine, University of Florence, Florence; ⁷Rheumatology Section, L. Sacco University Hospital, Milan; ⁸Systemic Rheumatic and Autoimmune Diseases Unit, Department of Biomedical Sciences and Human Oncology, University of Bari Medical School, Bari, Italy

Background: Several studies showed a close relationship between Rheumatoid Arthritis (RA) and accelerated atherosclerosis [1,2]. At the best of our knowledge, no such study has been carried out in a large Italian series.

Objectives: To investigate the prevalence of presence of subclinical atherosclerosis and history of cardio-cerebrovascular events (CVEs), in 1266 patients consecutively admitted to Rheumatology Units throughout the whole Italy.

Methods: From 01/01/2015 to 31/12/2015, 1266 consecutive patients admitted to GIRRCS centres, satisfying ACR/EULAR criteria for RA were investigated for: i. traditional cardiovascular risk factors: gender, age, smoking habit, cholesterol, triglycerides, glycaemia, systemic arterial hypertension (SAH), metabolic syndrome (MS), type 2 diabetes (T2D); ii. RA aspects: disease duration as assessed from the first symptom, disease activity as evaluated by DAS28, radiographic damage by joint X-ray, and joint surgery; iii. subclinical atherosclerosis, as assessed by ultrasound technique and/or atherosclerotic peripheral lesions; iv. history of CVEs. **Results:** We evaluated 1176 patients out of 1266, that were investigated for both CVEs and subclinical atherosclerosis. They were mostly females (80.52%), with a median age of 60 years (range 18–91 years), a median disease duration of 12 years (range 0.8–25 years), seropositive in 69.21%. Nineteen percent were in remission; 17.51% presented low disease activity; 39.45% moderate disease activity, 22.61% high disease activity.

Out of 1176 patients, 217 (18%) showed evidence of subclinical atherosclerosis: a figure lower than that reported worldwide (32.7%) [2]. Eighty-two patients (6.9%) had a history for CVEs (58 myocardial infarction, 38 heart failure, 10 ischemic transitory attack, 7 Stroke), too this figure is lower than that reported worldwide (8.5%) [3,4]. In multivariate analysis, older age (p=0.0001, OR:1.069, CI95%:1.05–1.09), MS (p=0.0001, OR:3.417, CI95%:2.16–5.40) and SAH (p=0.0001, OR:3.714, CI95%:2.23–6.17) and high disease activity (p=0.001, OR:2.117, CI95%:1.35–3.32) were significantly associated with the presence of subclinical atherosclerosis. Male gender (p=0.0001, OR:3.465, CI95%:1.94–6.185), MS (p=0.005, OR:2.542, CI95%:1.29–4.52), T2D (p=0.007, OR:2.324, CI95%:1.29–4.29) and SAH (p=0.001, OR:4.921, CI95%:2.14–11.45) and higher disease activity (p=0.003, OR:1.316, CI95%:1.15–1.68) were significantly associated with a history of CVEs.

Conclusions: This is the first Italian multicenter study on subclinical and clinical

atherosclerosis in patients with RA. We pointed out a low prevalence of both subclinical atherosclerosis and history of CV events. Nonetheless, a high disease activity and presence of cardiovascular risk factors were found to play a role, similarly to other countries.

References:

- [1] Ruscitti P, et al. *PLoS One*. 2017;12:e0170108.
- [2] Ambrosino P, et al. *Thromb Haemost*. 2015;113:916–30.
- [3] Solomon D et al. *Ann Rheum Dis*. 2010;69:1920–5.
- [4] Avina-Zubieta JA, et al. *Ann Rheum Dis*. 2012;71:1524–9.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.4733

THU0165 **RISK OF HERPES ZOSTER IN PATIENTS WITH RHEUMATOID ARTHRITIS IN THE BIOLOGICS ERA BASED ON THE IORRA COHORT**

R. Yamaguchi¹, A. Nakajima¹, E. Inoue², M. Ochiai¹, Y. Shimizu¹, N. Sugimoto¹, E. Tanaka¹, K. Ikari¹, A. Taniguchi¹, H. Yamanaka¹. ¹Institute of Rheumatology, Tokyo Women's Medical University, Tokyo, Japan; ²National Center for Child Health and Development, Center for Clinical Research for Development, Tokyo, Japan

Background: A high incidence of herpes zoster (HZ) in patients with rheumatoid arthritis (RA) has been reported (1). According to our previous report on the incidence of HZ in Japanese patients with RA enrolled in the IORRA (Institute of Rheumatology, Rheumatoid Arthritis) cohort from 2005 to 2010, the standardized incidence rate (SIR) of HZ per 1,000 patient-years was 9.1 (95% confidence intervals [95% CIs]: 6.2–12.9) (2). In that study, 3.0% of patients used biologics at baseline. Subsequently, the use of biologics has increased, and many new potent disease-modifying antirheumatic drugs (DMARDs) have been introduced. The treatment strategy for RA has progressed in recent years; thus, it is important to investigate whether there is a change in the HZ incidence rate and the risk factors for HZ with the expanded use of biologics.

Objectives: To elucidate the incidence of HZ and risk factors for HZ in RA patients in the IORRA cohort.

Methods: The IORRA cohort is a large, single institute-based, observational cohort of RA patients established at the Institute of Rheumatology, Tokyo Women's Medical University, in 2000. Among patients with RA enrolled in the IORRA surveys from 2010 to 2015, the incidence of HZ was extracted based on patients' self-report and confirmed by the medical records. The SIR with 95% CIs was calculated and risk factors for HZ were analyzed using a Cox regression analysis.

Results: For 7,815 patients with RA (female, 84.7%) who were analyzed, the median [interquartile range (IQR)] age was 61.0 [49.7–68.9] years, and disease duration was 10 [4–18] years. Baseline drugs (median dose [IQR]) included prednisolone (PSL, 4 [2–5] mg/day) in 36.8%, methotrexate (MTX, 8 [6–10] mg/week) in 70.4%, and biologics in 14.7% of patients. Among 7,815 patients with 25,863 patient-years of observation (male, 3,828; female, 22,035), 340 HZ events were confirmed in 309 patients (21 patients had multiple events). The SIR per 1,000 patient-years was 8.5 (95% CI: 6.9–10.5) in total, 6.0 (95% CI: 3.7–9.2) in males, and 11.0 (95% CI: 8.7–13.7) in females. The following hazard ratios (HR) were found: unit increase of age, 1.14 (95% CI: 1.03–1.26, p<0.05); J-HAQ score 0.5–1.5 (reference J-HAQ score =0), 1.51 (95% CI: 1.09–2.10, p<0.05); MTX use, 1.58 (95% CI: 1.06–2.36, p<0.05); and biologics use, 1.88 (95% CI: 1.44–2.47, p<0.01). PSL use was not a risk factor (PSL dose <5 mg/day: HR 1.17 [95% CI: 0.91–1.51, p=0.22]; PSL dose ≥ 5 mg/day: HR 1.17 [95% CI: 0.72–1.91, p=0.52]; the reference PSL dose =0 mg/day).

Conclusions: The drugs that were a risk factor for HZ were PSL and MTX in our previous study when the use of biologics was not prevalent. In this study, the drugs that were a risk factor for HZ were MTX and biologics, but not PSL in the era when the use of biologics became frequent.

References:

- [1] Wolfe F et al. *Rheumatology (Oxford)*. 2006;45:1370.

- [2] Nakajima A et al. *Mod Rheumatol* 2015;25:558.

Disclosure of Interest: R. Yamaguchi: None declared, A. Nakajima Consultant for: Bristol-Myers, Mitsubishi Tanabe Pharma, Nippon Kayaku Co. Ltd., Novartis Pharma, Pfizer, Siemens Healthcare Diagnostics K.K. and Takeda Pharmaceutical Company., Speakers bureau: Bristol-Myers, Mitsubishi Tanabe Pharma, Nippon Kayaku Co. Ltd., Novartis Pharma, Pfizer, Siemens Healthcare Diagnostics K.K. and Takeda Pharmaceutical Company., E. Inoue: None declared, M. Ochiai: None declared, Y. Shimizu: None declared, N. Sugimoto Speakers bureau: Takeda Pharmaceutical and Bristol Myers Squibb., E. Tanaka Consultant for: Abbvie, Eisai Pharmaceutical, Chugai Pharmaceutical, Bristol Myers Squibb, Astellas Pharmaceutical, Pfizer, Takeda Pharmaceutical, and Ayumi Pharmaceutical., K. Ikari Grant/research support from: Astellas, UCB, Bristol-Myers, Pfizer, Eisai, Tanabe-Mitsubishi, Chugai, AbbVie, Janssen Pharmaceutical, Otsuka, Kaken, Asahi-Kasei, Hisamitsu and Takeda., Speakers bureau: Astellas, UCB, Bristol-Myers, Pfizer, Eisai, Tanabe-Mitsubishi, Chugai, AbbVie, Janssen Pharmaceutical, Otsuka, Kaken, Asahi-Kasei, Hisamitsu and Takeda., A. Taniguchi Grant/research support from: AbbVie, Eisai, Takeda, Tanabe-Mitsubishi, Teijin Pharma, Pfizer., H. Yamanaka Grant/research support from: MSD, Ayumi, AbbVie, Eisai, Ono, Astellas, Daiichi-Sankyo, Taisyo-Toyama, Takeda, Tanabe-