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THU0671 PULMONARY INVOLVEMENT IN RHEUMATOID ARTHRITIS: PATTERNS AND EPIDEMIOLOGICAL CHARACTERISTICS FROM A MONOCENTRIC COHORT STUDY

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Background: Extra-articular manifestations (EAM) are not an uncommon finding in patients with Rheumatoid Arthritis (RA). Pulmonary involvement is a potential life-threatening EAM with deleterious effects on the quality of life and is reported in different occurrence among studies.

Objectives: To evaluate the frequency of pulmonary involvement in RA patients followed-up in a 15-years period.

Methods: 549 RA patients were diagnosed according to the ACR/EULAR classification criteria since 2003. A full clinical examination as well as a detailed laboratory and immunological evaluation has been carried-out at baseline. Furthermore, chest, hand and wrist but also feet radiographs had been obtained. All patients were followed-up at predefined times and were treated appropriately with conventional synthetic disease-modifying antirheumatic drugs (csDMARDs) and/or biologic (b)DMARDs. Any laboratory abnormalities or comorbidities were recorded and investigated appropriately at every visit. In addition, the disease activity score (DAS) using the 28-joints count (DAS-28) was recorded.

Results: Initial evaluation revealed 15 patients as having pulmonary abnormalities. Thus, these patients were excluded. From the rest, 37 (6.7%) patients manifested lung involvement. There were 26 males and 11 females, with mean age of 62.9 ± 3.4 years and disease duration of 8.5 ± 2.2 years. 14 were smokers and 10 ex-smokers. Dry cough and dyspnea on exertion were the main pulmonary symptoms. High resolution computed tomography (HRCT) scan of the chest revealed interstitial lung disease (ILD). More specifically, 23 patients showed usual interstitial pneumonia (UIP), 10 patients had nonspecific interstitial pneumonia (NSIP), while 4 had a mixed pattern. Six patients died 4 years after ILD development. ILD was associated with high DAS-28, seropositivity and male gender.

Conclusion: ILD is not a frequent EAM in patients with RA, but it carries a poor prognosis with high morbidity and mortality and it is associated with RA disease activity and male gender. UIP is the most prevalent pattern of ILD in RA patients.

Disclosure of Interests: None declared

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THU0672 PREVALENCE OF OSTEOPOROSIS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: A MULTICENTER COMPARATIVE STUDY OF THE FRAX AND WHO CRITERIA

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Background: Reduced bone mass or osteoporotic fracture are one of major complications in chronic inflammatory diseases including systemic lupus erythematosus (SLE). Fracture risk was found to be determined not only by conventional factors such as age and a lack of physical activity, but also by systemic inflammation, musculoskeletal symptoms, and administration of glucocorticoids.

Objectives: We evaluated the prevalence of osteoporosis and fracture risk in patients with systemic lupus erythematosus (SLE), and compared the fracture risk assessment tool (FRAX) criteria and bone mineral density (BMD) criteria established by the World Health Organization (WHO).

Methods: Data of 182 female patients with SLE were collected retrospectively in 5 hospitals between January 2012 and December 2016. The FRAX criteria for high-risk osteoporotic fractures were calculated including and excluding the scores in BMD, respectively. The high risk for fracture by FRAX criteria and BMD criteria by WHO was defined as 10-year probability of $\geq 20\%$ for major osteoporotic fracture or $\geq 3\%$ for hip fracture, and T score ≤ -2.5 or Z score ≤ -2.0 , respectively.

Results: The mean age was 51.1 ± 11.23 years, 114 (62.3%) were postmenopausal. Osteoporotic fractures were detected in 9 (4.9%) among the 127 patients taking T-L spine X-ray. The numbers of candidates for pharmacological intervention using the FRAX criteria with and without BMD

and the WHO criteria were 26 (14.2%), 23 (12.6%), and 51 (27.9%), respectively. Only 50–69.6% of the patients in the high-risk group using the FRAX criteria and the WHO criteria were receiving osteoporosis treatments. The following were associated with candidates for pharmacological intervention for fracture using the FRAX criteria without BMD and WHO criteria: Age (OR 1.422, 95% CI 1.22–1.659 and OR 1.157, 95% CI 1.083–1.236), and weight (OR 0.87, 95% CI 0.798–0.949 and OR 0.943, 95% CI 0.901–0.986), respectively. In addition, cumulative glucocorticoids dose (OR 1.073, 95% CI 1.024–1.123) was associated with candidates for pharmacological intervention for fracture using the FRAX criteria with BMD.

Conclusion: The proportion of SLE patients with a high risk of osteoporotic fractures by the FRAX criteria with and without BMD and the WHO criteria was 12.6%–27.9%. Among the candidate patients, only 50%–69.6% were taking osteoporotic medications. Independent risk factors for osteoporotic fractures in SLE patients were older age, lower weight and cumulative glucocorticoids dose.

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THU0673 CARDIOVASCULAR DISEASE AS A RISK FACTOR FOR DEVELOPMENT OF RHEUMATOID ARTHRITIS – A DANISH FOLLOW-UP STUDY

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Background: It is well-established that patients with rheumatoid arthritis (RA) have higher risk for development of atherosclerotic cardiovascular diseases (CVD) than the general population (1). The evidence shows that a CVD burden is already notable at the onset of RA (2). It is well-known, that atherosclerosis is an inflammatory condition (3). Therefore, we hypothesize that atherosclerotic CVD is positively associated with subsequent development of RA.

Objectives: To examine the risk of developing RA in persons who have had CVD, defined as acute myocardial infarction (AMI) or ischaemic stroke while controlling for established shared risk factors.

Methods: We conducted a population-based cohort study within the Danish Diet, Cancer and Health (DCH) cohort. The cohort was recruited 1993-97 and included individuals aged 50 to 64 years, born in Denmark and living in geographically defined parts of Denmark. Data on lifestyle factors and anthropometric measurements were collected at enrolment into the DCH. Information on incident AMI (ICD-10 code: I21), ischemic stroke (ICD-10 code: I63) and RA (ICD-10 codes: M05, M06 combined with ATC codes for DMARDs) was obtained from nationwide administrative registers. Participants were followed until development of RA, death, loss to follow-up or October 2016, whichever came first. Data were analyzed using Cox's proportional hazards regression models with delayed entry and age as the underlying time scale and cardiovascular disease (CVD) as a time-varying exposure variable, stratifying by gender. Established shared risk factors - smoking, body mass index and waist circumference - were included in the multivariable analyses.

Results: Complete data were available on 53287 subjects (52% female) without a AMI, stroke or RA diagnosis prior to their enrolment into the DCH. Median age at entry into DCH was 56 years. During follow-up (median 21 years), 4,627 participants developed CVD (37% female) and 516 participants developed RA (69% female). The risk for developing RA was 30% higher in women with CVD than in women without CVD (adjusted hazard ratio (HR) 1.30 (95% CI 0.70-2.38)) (Table 1). In men, there was no clear association between CVD and development of RA (adjusted HR 0.73 (95% CI 0.34-1.58)).