(group C). RP severity was evaluated through a visual analogue scale (VAS) from 0 to 10. Group A and C patients were evaluated at baseline and after 3 months. Group B were evaluated at every infusion for 3 months. Environmental temperature for each patient was calculated as the mean temperature during the week before the evaluation in the place of residence (data supplied by Meteo Operations Italia (MOPI) Srl – Centro Epson Meteo). Moreover for each participations demographic and disease characteristics were collected at baseline.

Results: 96 patients were enrolled in the study: 52 in group A, 24 in group B, and 20 in group C. Of these 35, 21 and 16 respectively completed the study.

RP VAS was related to the average temperature observed the week before the evaluation at place of residence. In group A, VAS RP decreases of -0.072 for a growth of one grade of the temperature (IC 95%: -0.206 – -0.061 , p -value= 0.297). In group B, VAS RP decreases of -0.278 for a growth of one grade of the temperature (IC 95%: -0.397 – -0.160 , p -value <0.001). In group C, VAS RP decreases of -0.053 for a growth of one grade of temperature (IC 95%: -0.201 – -0.095 , p -value= 0.483).

Conclusions: RP severity, as assessed by VAS, showed a correlation with the environmental temperature. This information could support the seasonal administration of IV ILO only during the coolest periods of the year.

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AB1354 RHEUMATOID ARTHRITIS IN ADULTS IN AN URBAN AREA: TRENDS FOR INCIDENCE, PREVALENCE AND HOSPITALISATION RATES FOR A 10-YEAR PERIOD

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Background: Rheumatoid arthritis (RA) is the most common inflammatory polyarthropathy. According to the previously published data its prevalence was 0.3%–1.5% and incidence – about 0.01%–0.02%^{1,2} with some variations due to genetic and ethnical factors.³ During last decades significant progress has been achieved in early diagnostic and treatment of RA. Nevertheless a tendency for the increase of both incidence and prevalence of RA was reported lately by some national registers.⁴

Objectives: We estimated incidence, prevalence and hospitalisation rates for RA in Minsk (the Republic of Belarus) for a 10 year period.

Methods: Minsk is a typical urban area which is considered to be representative for the urban population of the whole country. The data on the new onset RA and the first visit for RA in a corresponding year were collected from all rheumatologic services of Minsk for the period 2005–2015. Only patients older than 18 years old with the diagnosis of RA according to the ICD-10 (M05-M06) were included. Demographic data on the population of the Republic of Belarus were obtained from the annual Statistical bulletins of the National Statistical Committee. Hospitalisation rates were calculated on the base of statistical reports on discharges for the corresponding years.

Results: Population size for adults in Minsk in 2005 was 1467390 with 135 new onset RA cases revealed and corresponding RA incidence was 9.2 (CI_{95%} 8.6–9.8) per 100 000 adults. Population size in 2010 increased to 1529470, 131 new onset RA cases were revealed and RA incidence was 8.6 (CI_{95%} 8.4–8.7) per 100 000 adults. Population size in 2015 also increased at the same rate and amounted to 1598120, 206 new onset RA cases were revealed and corresponding RA incidence increased to 12.9 (CI_{95%} 12.7–13.1) per 100 000 adults ($p<0.001$).

There were registered 2745 first visits for RA in 2005 with corresponding RA prevalence 187.1 (CI_{95%} 186.4–187.7) per 100 000 adults. There were registered 3373 first visits for RA in 2010 and 4315 visits in 2015, RA prevalence rates were 220.5 (CI_{95%} 219.9–221.2) and 270.0 (CI_{95%} 269.3–270.7) per 100 000 adults, correspondingly. These data suggest a steady increase of RA prevalence for the last 10 years ($p<0.001$).

There were 7147 hospitalizations in Minsk for RA for the period 2010–2015. Hospitalisation rates for RA increased from 75.4 (CI_{95%} 73.8–77.1) to 79.2 4 (CI_{95%} 77.5–80.9) per 100 000 adults ($p<0.001$) with the same provision of the population with the specialised rheumatologic beds – 15.7 (CI_{95%} 14.9–16.5) and 15.0 (CI_{95%} 14.3–15.8) per 100 000 adults (NS) in 2010 and 2015,

correspondingly, while hospitalisation rates among RA patients decreased from 34.2% to 29.3% ($p<0.001$).

Conclusions: We revealed the significant increase (1.4 times) in incidence and prevalence of RA in adults in Minsk (Belarus) for the period 2005–2015. Hospitalisation rates for RA in the population had the same trend for the study period.

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AB1355 BONE MINERAL DENSITY, T-SCORE AND Z-SCORE IN YOUNG MEN WITH JUVENILE IDIOPATHIC ARTHRITIS

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Background: Juvenile Idiopathic Arthritis (JIA) is term used to classify a group of heterogeneous paediatric rheumatic diseases. Many of these conditions remain active until adulthood. Presences of chronic inflammatory disease together with glucocorticoid treatment are the risk factors of development of osteoporosis in young adult males.

Objectives: Aim: to study the bone mineral density (BMD), T-score, Z-score in young adult males with JIA.

Methods: The study included 50 adult men aged 19 to 25 years, divided into two groups: I – 25 practically healthy young males; II – 25 young men from different regions of Ukraine with a history of JIA in childhood regardless of the presence or absence of active inflammation at the time of the observation. Two-energy X-ray densitometry (Prodigy, GE Lunar, Madison, USA) was performed on the basis of the Institute of Gerontology, Ukrainian Research Centre of Osteoporosis Problems with analysis of BMD, T- and Z-scores in different skeletal areas.

Results: Young men with JIA and healthy individuals did not differ in age, height, weight and BMI. In assessing the number of fractures in patients with JIA were identified 4 patients (16%), while in the control group were no fractures. Negative impact of the JIA on the BMD was found in the I group compared with II group. Lumbar spine BMD in I group was lower ($p<0.01$) than in healthy subjects, as well as the Z-score ($p<0.001$) in the L1-L4 lumbar spine region. BMD, T-score and Z-score in femoral neck region were lower in I group than in II ($p<0.001$, $p<0.001$, $p<0.01$ correspondingly). Reliable differences between the two groups were found in total body BMD ($p<0.001$), T-score ($p<0.01$), Z-score ($p<0.05$). Patients with JIA had lower ($p<0.01$) BMD and T-score ($p<0.05$) in ultradistal area of forearm. Reduction of BMD up to the level of osteopenia (Z-score <2 SD) was found in 5 out of 25 (20%) patients at the level of L1-L4 lumbar spine, in 2 (8%) patients at the level of femoral neck, in 3 (12%) patients at total body and in 2 (8%) patients at the level of ultradistal area of forearm.

Conclusions: Young men with JIA aged 19–25 years had reduced total body BMD, T-score, Z-score, which indicates the negative impact of the disease on the bone tissue compared with healthy men of the corresponding age.

Disclosure of Interest: None declared

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AB1356 AGE PECULIARITIES OF BONE MINERAL DENSITY IN YOUNG FEMALE WITH JUVENILE IDIOPATHIC ARTHRITIS

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Objectives: Aim: to study the bone mineral density (BMD) in young adult females with juvenile idiopathic arthritis (JIA) depending on the age.

Methods: 99 females aged 19–39 (40 patients with JIA and 59 practically healthy persons) were examined. All surveyed were divided into 2 groups by age: I group–20–29 years old and II group–30–39 years old. The age of disease onset, delay in diagnosis, disease duration, ILAR-variant of JIA, BMD, T-score and Z-score were estimated.

Results: The onset of JIA was at the age of 11.16 ± 4.34 years, delayed diagnosis– 23.52 ± 21.37 months, the disease duration– 11.9 ± 9.4 years, persistent

oligoarthritis was detected in 25% of patients, RF-negative polyarthritis—in 22.5%, extended oligoarthritis—in 10%, RF-positive polyarthritis—in 10%, systemic-onset JIA—in 12.5%, enthesitis-related JIA—in 15%, undifferentiated arthritis—in 2.5%, psoriatic arthritis—in 2.5% of patients. BMD ($p<0.000001$) in the lumbar spine (LS) were lower in female with JIA than in healthy people. Femoral neck (FN) BMD ($p<0.000001$), total body (TB) BMD ($p<0.000001$) were lower in patients with JIA than in healthy people. The BMD was significantly lower at the LS ($p<0.001$) and at the TB ($p<0.01$) in both groups, and at the FN ($p<0.001$) in patients aged 20–29 years in comparison with healthy group. Z-score <-2 SD in young females was detected in 40% of patients in the LS, in 25% of patients in the FN, in 35% of patients in the TB and 52.5% of patients in ultradistal forearm, and T-score <-2.5 in 2.5% in LS, 2.5%–FN, 37.5%–TB, 22.5%–ultradistal forearm. Osteopenia by T-score at the LS was found in 42.5%, of the FN–42.5%, TB–37.6%, ultradistal forearm–22.5% of patients.

Conclusions: The presence of JIA in childhood had negative effects on the formation of peak bone mass and BMD at young female.

Disclosure of Interest: None declared

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AB1357 RISK FACTORS FOR CYTOMEGALOVIRUS REACTIVATION IN PATIENTS WITH CONNECTIVE-TISSUE DISEASE; SINGLE-CENTRE PROSPECTIVE COHORT STUDY

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Background: Cytomegalovirus (CMV) reactivation is one of serious opportunistic infections for immunosuppressed patients, therefore, identifying patients at risk for CMV reactivation is of importance. However, no prospective study about CMV reactivation in connective tissue disease (CTD) has been reported.

Objectives: To identify risk factors relevant with CMV reactivation in patients with CTD during remission-induction therapy.

Methods: Consecutive CTD cases who started immunosuppressive therapy from February until December 2017 were enrolled. Serum CMV-IgG was measured before the induction therapy, and subsequently, CMV pp65 antigen was monitored weekly. Patients were divided into 2 groups according to the presence or absence of CMV reactivation, and risk factors for CMV reactivation were analysed.

Results: Sixty six cases were enrolled. Mean age was 59.9 $\pm$ 17.9 y/o, and female was 68.2%. The underlying diseases were following; anti-neutrophil cytoplasmic antibody-associated vasculitis 18, systemic erythematosus 11, polymyositis/dermatomyositis 9, IgG4-related disease 7, giant cell arteritis 6, and others 15. The initial dose of glucocorticoid (GC) was 50.8 $\pm$ 11.5 mg/day (0.92 $\pm$ 0.15 mg/kg/day) as prednisolone (PSL) with additional methylprednisolone (mPSL) pulse therapy being conducted in 17 (25.8%). Concomitant immunosuppressive therapies were intravenous cyclophosphamide (IVCY) in 25, mycophenolate mofetil 9, and calcineurin inhibitor 7, tocilizumab 2, infliximab 1, abatacept 1, and rituximab 1. None of 10 CMV-IgG negative patients developed CMV reactivation. Among 56 CMV-IgG positive patients, CMV reactivated in 20 patients (35.7%). Among those, CMV infection occurred in 2 patients (hematopoietic injury and hepatitis). Previous history of GC administration ($p=0.032$), initial GC dose ($p=0.033$), mPSL pulse therapy ($p=0.018$), IVCY ($p=0.003$), and low lymphocyte count 1 week after treatment initiation ($p=0.023$) were significantly related with CMV reactivation.

Abstract AB1357 – Figure 1. Patient flow of this study.

Conclusions: While no CMV reactivation occurred in CMV-IgG negative cases, treatment regimen and low lymphocyte count were associated with CMV reactivation in CMV-IgG positive CTD cases.

Disclosure of Interest: None declared

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Validation of outcome measures and biomarkers

AB1358 INFECTIOUS ANTIBODIES REPERTOIRE IN RHEUMATOID ARTHRITIS

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Background: The incidence of infectious diseases in the RA ADAPTERA study by ELISA antibody screening and the differences in infectious distribution in active or low active disease patients was explored.

Methods: Sera from 88 naive RA patients out of the ADAPTERA study cohort, disease duration <6 months, were tested for antibody titers against: Herpes simplex virus 1 and 2 (HSV1 +2, IgG and IgM) Helicobacter pylori (HP, IgA and IgG), Cytomegalovirus (CMV, IgG and IgM), Toxoplasma gondii (Toxo, IgG), Adenovirus (IgG and IgM), Epstein Barr virus (EBV, IgG and IgM), and Parvovirus B19 (P-B19, IgG) were determined by using NovaLISA from NovaTec Immundiagnostica GmbH, GERMANY. Borrelia (IgG and IgM) titers were determined by AESKULISA and confirmed by Western blot (AESKUBLOTS) by AESKU.DIAGNOSTICS GmbH and Co. KG, GERMANY.

Results: 82% RA patients were found to be positive for HSV1 +2 IgG (2% IgM positive), 8% for Adenovirus (IgA, 77% (IgG), and 1% (IgM). 99% for EBV-IgG (no IgM positive). 53% (IgG), and 26% (IgM) for CMV. 38% for HP-IgG and 15% for IgA and 79% for P-B19-IgG (3% IgM). 6% for Borrelia-IgM and 14% for IgG. A slightly increase was found for EBV sera positivity (99% IgG), compared to the normal population.

Conclusions: Limited evidence exists regarding the impact of the disease activity on the susceptibility for infections, possibly due to the close association of RA disease activity and therapy dependent dosage of immunosuppressive treatment. Still, some infections may present memory contact, presenting an epiphenomenon. On the contrary, they might play an active role in RA pathophysiology.

Disclosure of Interest: None declared

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AB1359 TRANSLATION, CULTURAL ADAPTATION AND VALIDATION OF THE ITALIAN VERSION OF THE BILD: THE BILDIT

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Background: Evaluation of organ damage is one of the most important assessments in SLE patients; the SLICC/DI is a physician –driven instrument widely used to assess organ damage in SLE. Patient-reported outcomes (PROs), self-assessments that are not being interpreted by a clinician, are gaining a central role as outcome measures. Among these, the Brief Index of Lupus Damage (BILD) is a patient-reported instrument for the assessment of organ damage in SLE.¹

Objectives: The aims of the present study are translation, cultural adaptation and validation of an Italian version of the BILD.

Methods: The process of translation and cultural adaptation followed published guidelines.² The final version of the questionnaire (BILDit) was pretested in a group of 30 SLE patients to evaluate acceptability, comprehension and feasibility. The validity of the BILDit was evaluated by its administering to consecutive patients attending the outpatients clinic or the inpatients wards. The external validity was tested toward the SLICC/DI scored by a physician blinded to the BILDit results. Correlation with other PROMs (FACIT, SF-36) was also tested. In a subgroup of 30 patients the questionnaire was administered twice at 2 weeks interval to assess their reliability.