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 NovaLis 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.

Results: A total of 166 SLE patients participated to the study (93.4% female, 97% Caucasian); mean age ($\pm$ standard deviation) at enrollment was 45.4 years $\pm$ 13, mean disease duration resulted 14.3 $\pm$ 10 years. Overall, disease activity at enrollment as expressed by the SLEDAI score resulted quite low (median SLEDAI 2, IQR 0–4) and 27.3% of patients presented an active disease (SLEDAI >4). At least one organ damage according with the SLICC/DI was present in 111 patients (56.35%) with a median score of 2 (IQR1–4). In the pilot test, 80% of patients answered to all the questions; 93% of the patient declared no difficulty in completing the questionnaire and the median time required resulted 5 min.^{3–5} BILDit showed very high reliability (test-retest α >0.8). The BILDit scores in our sample showed a strong positive correlation with SLICC/DI (ρ =0.69; p <0.001); by comparing the single BILDit and SLICC/DI items, we found a significant concordance for all but retinopathy and cerebrovascular disease that resulted underestimate by patients. BILDit scores showed a positive linear relation with age (p <0.01) and disease duration (p <0.01); in a multivariate analysis, a significant inverse correlation was found between BILDit scores and FACIT scores (p <0.01) and with both physical and mental components of the SF-36 (p <0.01).

Conclusions: BILDit demonstrated to be acceptable, comprehensible, feasible and reliable in our routine clinical setting; it also showed good correlation with physician's driven instruments and quality of life measures. The BILDit can be considered a useful screening tool for the assessment of organ damage as perceived from the patient's point of view before the standard visit.

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AB1360

RANGE AND CONSISTENCY OF OUTCOME MEASURES REPORTED IN RANDOMISED TRIALS IN DERMATOMYOSITIS: A SYSTEMATIC REVIEW

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Background: Dermatomyositis – an idiopathic inflammatory myopathy- can be resistant and unresponsive to initial treatments and require chronic therapy. Symptoms including muscle weakness and skin rash can lead to severe complications and impair quality of life. There are a paucity of randomised trials in dermatomyositis, which may not consistently report outcomes that are important to patients and their clinicians.

Objectives: To assess the scope and consistency of outcomes reported in randomised trials in dermatomyositis.

Methods: MEDLINE, Embase, CINAHL, PsycINFO were searched to February 2017 for randomised trials in children and adults with dermatomyositis. The frequency and characteristics of the outcome domains and measures reported were then analysed. Similar outcomes were grouped into outcome domains and classified as surrogate, clinical or patient-reported outcomes. The frequency and characteristics of the outcome domains and measures reported were then analysed.

Results: We included 18 trials (n=844 participants), reporting 680 outcome measures. These were grouped into 27 different outcome domains; including 12 (44%) clinical outcomes, 9 (33%) surrogate/biochemical outcomes, and 6 (22%) patient-reported outcomes. The 5 most frequently reported outcome domains were: physical function (13 trials, 72%), muscle strength (12, 67%), muscle inflammation (12, 67%), biomarkers (11, 61%), and composite i.e. myositis disease activity (10, 56%).

Conclusions: The majority of outcomes reported in trials in dermatomyositis are clinical outcomes and few are patient-reported. Establishing a core set of patient-important outcomes may improve the consistency and relevance of outcomes reported in trials in dermatomyositis to inform decision-making.

Disclosure of Interest: None declared

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AB1361

SEASONAL SENSITIVITIES OF DISEASE ACTIVITY INDICES IN RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is a chronic and progressive autoimmune disease which is primarily characterised by the inflammation of synovial joints. In rheumatoid arthritis, evaluation of the disease activity is very important in monitoring the disease progression and effectiveness of the treatment

Objectives: The aim of this study was to evaluate the seasonal sensitivity of disease activity indices (DAS28-ESR, DAS28-CRP, SDAI and CDAI) in rheumatoid arthritis. In addition, we investigated the presence of seasonal variation in disease activity in rheumatoid arthritis and its relation to vitamin D levels.

Methods: This is a prospective study. This study included female RA patients, who were diagnosed/verified according to 2010 ACR/EULAR criteria, with a diagnostic history of 5 years or older. The seasons were identified as spring (March, April, May), summer (June, July, August), autumn (September, October, November) and winter (December, January, February), and the study was completed with 85 patients. We assessed the disease activation with DAS28-ESR, DAS28-CRP, SDAI and CDAI scales, functional status with HAQ questionnaire, quality of life with the 36-Item Short Form Health Survey (SF-36), and presence of depression with beck depression inventory (BDI). Blood samples from patients were kept at appropriate storage conditions at –80 °C, and serum levels of 25-OH vitamin D were analysed by the chemoluminescence assay method at the end of each season.

Results: The assessment of mean of DAS28-ESR and DAS28-CRP scores found that the disease activity showed statistically significant seasonal differences (p <0.05). Although the assessment of mean of SDAI and CDAI scores showed that the disease activity was higher in the autumn season, this difference was not statistically significant (p >0.05). There was no statistically significant correlation between the mean vitamin D levels and mean of DAS28-ESR, DAS28-CRP, SDAI, CDAI scores in any season (p >0.05).

Conclusions: These results suggest that there may be seasonal variation in disease activity in RA and that DAS28-ESR and DAS28-CRP may be more sensitive than CDAI and SDAI in establishing this variation. There was no correlation between seasonal changes in disease activity and changes in serum 25-OH Vitamin D levels

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AB1362

SPECIFIC FEATURES OF THE CLINICAL COURSE AND OUTCOMES OF ERYTHEMA NODOSUM, ASSOCIATED WITH INFECTION

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Background: Erythema nodosum (EN) is the most common type of septal panniculitis (Pn) without vasculitis. The prevailing identifiable cause of EN in paediatric population is bacterial infection (*Streptococcus*), while in adults sarcoidosis and streptococcal infection are considered to be the most common etiological factors.

Objectives: The aim of the current study is to evaluate specific features of the clinical course and outcomes of EN, associated with infection, in rheumatology practice.

Methods: The study included 121pts (112 females—92,6%, 9 males—7,4%, mean age 38,9 $\pm$ 12,6 y) who were on the record at VA Nasonova Research Institute of Rheumatology during 7 years with referral diagnosis «erythema nodosum». The disease duration varied from 1 week to 20 years. Patient's assessment included general clinical examination, immunological and serological tests for *Chlamidia* (*Chl. Pneumoniae*, *Chl. trachomatis*), *Mycoplasma* (*M. pneumoniae*, *M. hominis*), *Ureaplasma*, Herpes viruses type I and II, Cytomegalovirus, Epstein-Barr virus, *Yersinia*, HBV and HCV, HIV, anti-streptolysin O (ASO) using ELISA and immunoturbidimetry. The outcomes were assessed in 1–6 years.

Results: EN association with infection was identified in 32 pts (30 females, 2 males, mean age 39,6 $\pm$ 13 y). Chronic conditions prior to EN onset were found in 12 pts (37%): tonsillitis—in 8 pts (25%), endometriosis—in 1 (3%), bronchitis—in 1 (3%), colpitis—in 1 (3%), toxoplasmosis—in 1 (3%). Elevated ASO titers were documented in more than half cases (18 (56,25%) pts). "Blooming bruise" symptom was characteristic for this population (p <0,0001). Clear clinical and laboratory