FRI0145 BODY MASS DENSITY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Physiological processes, as ageing and menopause, natural influence (diet, physical activity) and many other factors are important in development of osteopenia (OPE) or osteoporosis (OPO). The possible influence of some previous diseases and medications on bone density was investigated, too.

Objectives To estimate bone density in patient with Systemic Lupus Erythematosus (SLE) and to investigate the influence of BMI, age at onset of SLE, duration of disease, age in time of study, duration of CS treatment as a possible risk factors for OPE/OPO.

Methods In follow-up study we investigated 57 female patients with SLE, mean age 44.73 ± 11.34 years (min22-max68), mean age at the onset of SLE 35.83 ± 11.18 yr.(15-64). The duration of SLE was 9.03 ± 7.22 yrs (1-32). Corticosteroide therapy was used for 8.40 ± 6.85 yr.(1-32). Body mass density was measured on L2-L4 segment of vertebral spine. DEXA LUNAR osteodensitometer was used. According to T score patients were classified as: normal (N group) 21 patients ($T > -1.0$), osteopenic (OPE group) 23 pts ($-2.5 < T < -1.0$), and ospeoporotic (OPO group) 13 pts ($T < -2.5$).

Results No difference were noted in: BMI and in duration of SLE in groups investigated. The borderline difference was existed between N and OPO group in duration of CS treatment ($p = 0.049$). The relation between particular data where statistical significance was obtained in groups investigated is presented in the Table 1.

Abstract FRI0145 Table 1

	N:OPE	N:OPO	OPE:OPO
Age at onset of SLE	ns	***	***
Age at the study	ns	***	***
BMD	***	***	ns

*** $p < 0.0001$.

Conclusion Low body mass density was found in elder group of patients with SLE, where the disease started later in perimenopause. Duration of disease, and duration of corticosteroid treatment did not influence BMD. Further studies will consider other factors possibly significant in development of osteoporosis in SLE (subsets of disease, immunological disturbances, cumulative dose of CS and known risk factors for osteoporosis).

FRI0146 DEFORMING ARTHROPATHY OF THE HANDS (JACCOUD'S ARTHROPATHY) IN 20 PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Background Jaccoud's arthropathy (JA) is a deforming but non erosive arthropathy that can affect patients with systemic lupus erythematosus (SLE).

Objectives To characterise SLE-associated JA (SLE-JA), and to compare the clinical and laboratory manifestations of SLE patients, with or without JA.

Methods From our cohort of 860 SLE patients, we selected all patients with clinical JA, as well as 86 patients without JA. Patients with erosive arthropathy were excluded. Clinical and laboratory manifestations were compared between the two groups.

Results We found 20 patients with SLE-JA (19 females, 1 male, all caucasians). Their mean age at SLE onset was 29.3 ± 12.5 yrs; mean duration of arthritis was 20.1 ± 8.6 yrs; mean number of 1982 ARA criteria for SLE was 5.9 ± 1.5 (range 4-9). Main deformations were ulnar drift (75%), swan neck deformities (85%), Z deformity of the thumbs (80%) and boutonniere deformities (5%). JA of the feet was present in 4 patients, with hallux valgus (15%) or hammer toes (5%) deformities. Major hyperlaxity of other joints was noted in 2 patients (10%) and tendon rupture in 5 (25%). Five patients underwent hand surgery for correction of deformities. Compared to SLE cases without JA, patients with SLE-JA had a higher frequency of Raynaud's phenomenon (50% vs 15%; $p < 0.002$) and IgM rheumatoid factor positivity (37% vs 15%; $p < 0.04$), and a lower frequency of lymphopenia (45% vs 71%; $p < 0.03$). No SLE-JA patient had antikeratin or antiperinuclear antibodies (ab). Anti-RA33 ab was absent in all 14 SLE-JA patients tested. The prevalence of other manifestations, including those related to antiphospholipid syndrome or SjöGREN'S syndrome, was not different in the two groups.

Conclusion SLE-JA seems a rare condition. Rheumatoid factor instantly identifies this SLE subset, but the absence of other RA-associated ab, such as antifilaggrin ab, helps to differentiate SLE-JA from RA associated with SLE.

FRI0147 BODY MASS DENSITY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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10.1136/annrheumdis-2001.182

Background Physiological processes, as ageing and menopause, natural influence (diet, physical activity) and many other factors are important in development of osteopenia (OPE) or osteoporosis (OPO). The possible influence of some previous diseases and medications on bone density was investigated, too.

Objectives To estimate bone density in patient with Systemic Lupus Erythematosus (SLE) and to investigate the influence of BMI, age at onset of SLE, duration of disease, age in time of study, duration of CS treatment as a possible risk factors for OPE/OPO.

Methods In follow-up study we investigated 57 female patients with SLE, mean age 44.73 ± 11.34 years (min22 max68), mean age at the onset of SLE 35.83 ± 11.18 yr.(15-64). The duration of SLE was 9.03 ± 7.22 yrs (1-32). Menarha were started in 13.73 ± 1.47 yr. (11-18). 27 pts were in menopause in 44.03 ± 4.24 yr.(34-53). Corticosteroide therapy was used for 8.40 ± 6.85 yr.(1-32). Body mass density was measured on L2-L4 segment of vertebral spine. DEXA LUNAR osteodensitometer was used. According to T score patients were classified as: normal (N group) 21 patients ($T > -1.0$), osteopenic (OPE group) 23 pts ($-2.5 < T < -1.0$), and ospeoporotic (OPO group) 13 pts ($T < -2.5$).

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Conclusion Low body mass density was found in elder group of patients with SLE, where the disease started later in perimenopause. Duration of disease, and duration of corticosteroid treatment did not influence BMD. Further studies will consider other factors possibly significant in development of osteoporosis in SLE (subsets of disease, immunological disturbances, cumulative dose of CS and known risk factors for osteoporosis).

FRI0148 2-YEARS BONE MINERAL DENSITY FOLLOW-UP IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background Systemic lupus erythematosus (SLE) and its treatment comprises several potential risk factors of osteoporosis.

Objectives We evaluated bone mineral density (BMD) in a cohort of ambulatory patients with SLE and determined the influence of corticosteroids and disease-related variables at the baseline and during 24-months follow-up.

Methods BMD of the lumbar spine, proximal femur, and total body was measured by dual energy X-ray absorptiometry (DEXA) in 61 SLE patients (52 premenopausal women, 9 men; mean age 32,3 and 36 years, respectively) and 61 healthy controls matched for age and sex. Several disease-related variables including treatment characteristics were recorded. 50 patients (40 women, 9 men) and 37 patients (31 women, 6 men) were followed for another 12 and 24 months, respectively.

Results With few exceptions the BMD values of all sites were significantly reduced in both women and men (p values $< 0,001-0,05$) as compared to controls. During 12 months of follow-up a significant BMD decrease was seen in neck (both women and men), total body (women) and in proximal femur (men). In women current corticosteroid dose adversely influenced total body mineral content development. Continuous BMD loss has been detected during another 12 months in a subgroup of patients taking >10 mg prednisone daily. Generally, there was no further BMD decline in the second year of study, presumably due to lower average daily prednisone dose compared to that at the start of study (10,0 vs. 14,3 mg in women, 11,3 vs. 22,4 in men).

Conclusion BMD in premenopausal women and in men with SLE is significantly reduced at all measured sites and is adversely influenced by duration of the illness (proximal femur) and

prednisone cumulative dose (lumbar spine, total body). This decline occurs presumably early during the corticosteroid treatment and further bone loss is limited to patients taking >10 mg prednisone daily.

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OP0100 INFECTIOUS COMPLICATIONS IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background In the last decades long time survival of patients with systemic diseases of connective tissue improved dramatically, not only due to new therapeutic methods but also thanks to prompt diagnostics of infections and their effective treatment.

In spite of this, infection complications constitute a considerable determinant of mortality in patients with systemic lupus erythematosus (SLE). In these patients, morbidity by bacterial, viral and fungal diseases is higher compared to patients suffering from other rheumatic diseases. There are many reasons why it is so, the most important include variability of infection agents virulence factors, immunopathogenic features of diseases (dysbalance of T-lymphocytes populations, cytokine dysbalance), activity of disease, factors related to it and also the therapy (corticosteroids and immunosuppressants).

Objectives Authors present detailed results of longitudinal retrospective analysis of morbidity and mortality caused by infections summarised from studies published up to now in the world literature as well as clinical analysis of infectious complications in a group of SLE patients treated in Research Institute of Rheumatic Diseases.

Methods A group of 135 patients with SLE diagnosed according ARA criteria was studied for infections induced by community acquired pathogens and opportune microorganisms. Clinical and laboratory predictors of infection development in these patients were assessed as well.

Results Actual morbidity for infection was 36,3% and mortality in connexion to the infection was 1,5%. From the community acquired pathogens the most frequent were infections caused by enterobacteria and *Staphylococcus aureus*. Fungal infections caused by *Candida* spp. were predominant in the group of opportune infections. Regarding anatomical site of infection the most frequent were infections of lower respiratory tract and urogenital system. Significant correlation between past infection, activity of the disease (evaluated by ECLAM and SLEDAI indices), proteinuria, leucopenia and high corticoids dosage were revealed. In multiple regression model only activity of the disease as a risk factor for development of infection in patients with SLE was designated.

Conclusion For effective control and prevention of infectious complications in systemic diseases of connective tissues, changing pathogenicity time trends and resistance to anti-infectious therapy (antibiotics, antifungal and antiviral agents) have to be considered.