WORLD CONGRESS
ON OSTEOPOROSIS,
OSTEOARTHRITIS AND
MUSCULOSKELETAL
DISEASES

VIRTUAL CONGRESS

August 20-22, 2020

IOF International Osteoporosis Foundation

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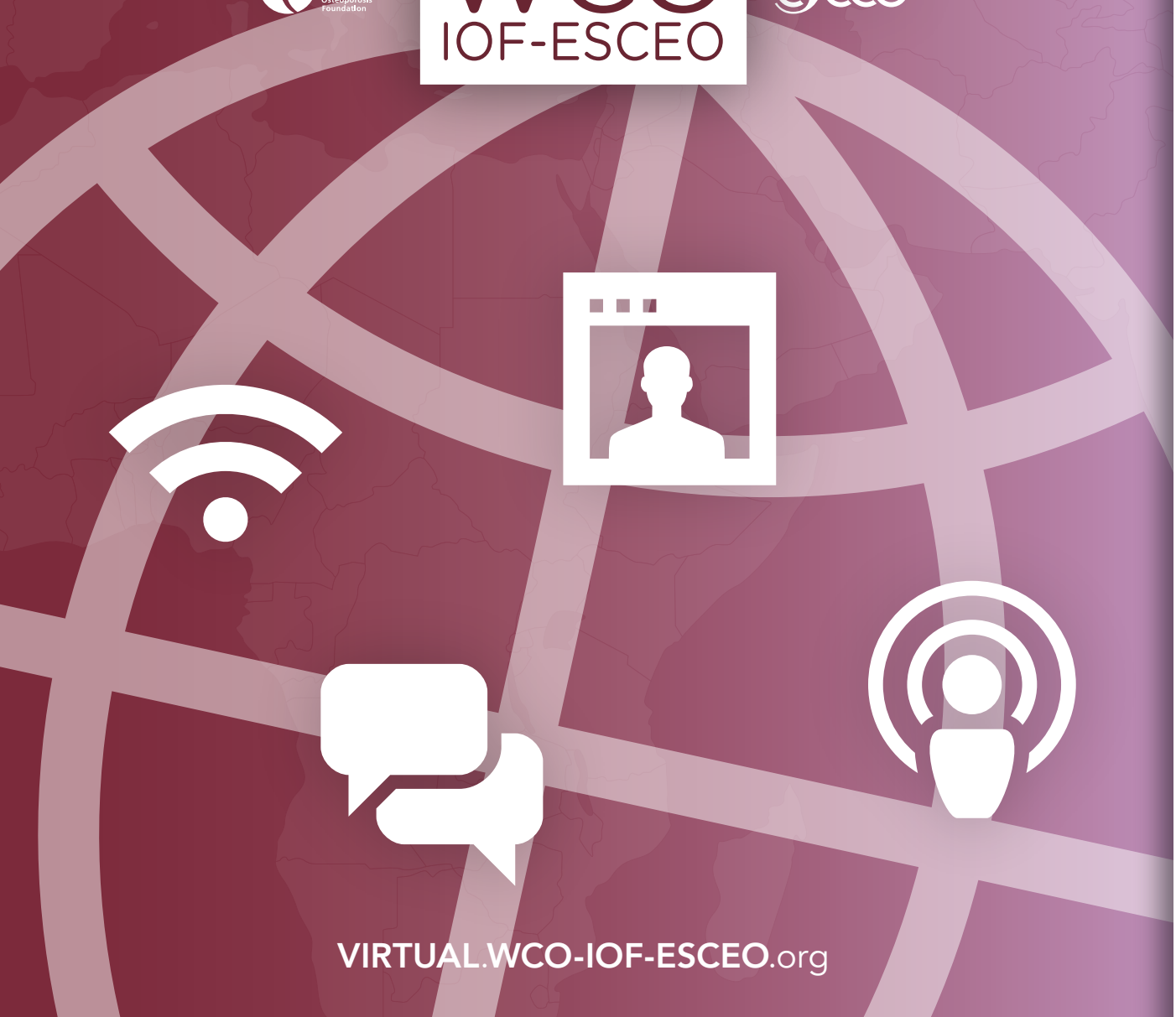

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AbstractBook

Centre of Vojvodina. BMD assessment on the Lunar Prodigy apparatus was performed using the DXA method while fracture risk assessment was performed using the FRAX questionnaire.

Results: The mean age of subjects with osteoporosis and osteopenia was 68.14±8.51 and 66.21±10.76, respectively. 70 (50%) subjects in the osteoporosis group had bone fracture, while only 40 (33.33%) had fracture in the osteopenia group. In the osteoporosis group, 18 (12.86%) patients had a positive family history of hip fracture, compared to 12 (10%) in the osteopenia group. In relation to alcohol consumption, 120 (85.71%) subjects in the osteoporosis group and 100 (83.33%) subjects in the osteopenia group reported no consumption. 34 (24.28%) patients in the osteoporosis group were smokers and 32 (26.66%) from the osteopenia group were active in some type of sports. Lower body mass was observed in subjects with osteoporosis (21.93±4.13 vs. 26.87±5.25) (t=2.646, p=0.009). The risk of major fracture in the osteoporosis group was 12.49±6.19, and in the group with osteopenia 10.21±6.30 (t=-2.217, p=0.028). There was a statistically significant difference in the risk of hip fracture among subjects in osteoporosis and osteopenia groups. Subjects with osteoporosis had a higher risk of hip fracture than subjects with osteopenia (4.92 vs. 3.67; t=-2.001, p=0.047).

Conclusion: The most significant risk factors in patients with reduced BMD and osteoporotic fractures in our study were the existence of earlier fractures and low body weight. A higher fracture risk was found for major osteoporotic fractures and hip fractures in patients with osteoporosis.

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EFFICACY OF PHYSICAL THERAPY IN PATIENTS WITH LATERAL ELBOW TENDINOPATHY

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Objective: To examine the efficacy of physical therapy in the treatment of patients with diagnosed lateral elbow tendinopathy (LET).

Methods: Prospective study includes 58 patients with diagnosed LET. All patients were treated with a combined physical procedures lasting 15 therapeutic days: extracorporeal shockwave therapy (once a week, the repetition frequency of shock wave pulses was 10-12 Hz, and medium energy level 0.08-0.13 mJ/mm^2), low level laser therapy (once a day, wavelength of 810 nm, power 500 mW, irradiation time of 10 min), ice treatment (once a day, duration 5 min), wrist extension splinting, and rest. Patients were evaluated at baseline, and 1 month following treatment. The outcome measures were the visual analog scale (VAS), patient-rated tennis elbow evaluation (PRTEE), and Short Form-36 (SF-36) health survey questionnaire.

Results: A total of 58 patients with LET participated in the study, including 56.28% men and 43.72% women, 48±11 years old, BMI (kg/m^2) 26.21±2.18, with dominant hand right/left 47/11 (81.03%/18.97%) and disease duration 29.59±8.15 d. Before the use of physical therapy, total score of VAS was 7.8±1.7, and total score of PRTEE was 61.5±21.3. One month following treatment total score of VAS was 3.6±2.4 (p<0,05), and total score of PRTEE was 42.5±17.3 (p<0,05). Quality of life measured by the SF-36 questionnaire significantly increased in all subscales, compared with the pretreatment scores (p<0.05).

Conclusion: The application of physical therapy has led to statistically significant reduction in pain and improvement in the functional status of patients with lateral elbow tendinopathy.

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CHANGES OF XANTHINE OXIDASE AND XANTHINE DEHYDROGENASE ACTIVITIES AFTER NSAIDS USAGE IN RHEUMATOID ARTHRITIS

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Objective: To evaluate the changes of xanthine oxidase and xanthine dehydrogenase activities in plasma, lysed lymphocytes and lysed red blood cells of rheumatoid arthritis (RA) patients related to NSAIDs treatment.

Methods: 46 RA patients and 30 healthy individuals were included in the study. The diagnosis of RA was verified using the ACR/EULAR criteria (2010). All patients have moderate DAS28 disease activity scores. RA patients were randomized into 2 groups comparable in gender, age and the principal clinical manifestations. Diclofenac sodium (Hemofarm), average dose 75 mg/d, and ketoprofen (Sandoz Novartis), average dose 100 mg/d, were administered intramuscularly in the respective groups. Xanthine oxidase (XO, EC 1.17.3.2) and xanthine dehydrogenase (XDG, EC 1.17.1.4) activities were measured in plasma, lysed lymphocytes and lysed red blood cells by spectrophotometric method as previously described [1]. The changes of these enzymes activities were studied in RA patients before and after the injection of NSAIDs. Statistical comparison tests were selected in according to common guidelines, differences were considered significant when p<0.05.

Results: Mean age of patients in diclofenac sodium group (± SEM) was 42.9±1.0 years, and mean RA duration (± SEM) was 7.5±0.25 y. Mean age of patients in ketoprofen group (±SEM) was 45.1±1.2 y, and mean RA duration (± SEM) was 7.7±0.3 y. Significant increase of XDG activity and decrease of XO activity were observed in plasma and lysed lymphocytes of RA patients just after the injection of either NSAID. However enzymatic activity did not reach the level of healthy controls. Changes of the enzymatic activities in plasma and lysed lymphocytes were more pronounced in ketoprofen group. Changes of both enzymatic activities in lysed red blood cells were conversely greater in diclofenac treated patients. Magnitude of changes of XO and XDG plasma activities was significantly higher than in lymphocytes and erythrocytes in both groups.

Conclusion: Treatment with diclofenac sodium and ketoprofen can affect the balance of XO/XDG activity and increase the antioxidant potential of the blood.

Reference: 1. Zborovskaya IA et al. Russ J Pain 2018;3:47

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MONOCYTE EXTRACELLULAR TRAPS IN RHEUMATOID ARTHRITIS

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Objective: To study the propensity of circulating monocytes for spontaneous and induced formation of extracellular traps in rheumatoid arthritis (RA).

Methods: The study was performed according to bioethical standards. 15 patients over 18 years old with verified RA, disease history less than 2 years, and DAS28 score not exceeded 2.6 were included in the study. The 2010 ACR/EULAR criteria were used for verification. 9 patients (60%) were positive for anti-citrullinated protein antibodies (ACPA). 15 healthy volunteers were included in the control group. RA patients and healthy volunteers were comparable by sex and age. Circulating monocytes were isolated using density gradient centrifugation of buffy coat (700 g, 15 min) over slightly hyperosmolar ficoll-amidotrizoate gradient with density 1068 kg/m^3. We induced the extracellular traps formation using 100 nM PMA in PBS. The extent of extracellular traps formation by monocytes was assessed using fluorescent microscopy. Results are expressed as percent of netting cells in the specimen. Central tendencies and variabilities are expressed as Mean (95%CI).

Results: Mean age of patients was 56.2 y, mean disease duration was 1.4 y. The average proportion of monocytes with spontaneous trap formation was significantly higher in RA patients 8.4% (6.6-12.0) comparing with the control group 5.8% (3.8-7.0) ($p<0.05$). The frequency of spontaneous trap formation by monocytes in ACPA-positive RA patients with RA is similar to their negative counterparts. The average proportion of monocytes with induced trap formation was significantly higher in RA patients 27% (20.1-33.2) comparing with the control group 17.6% (15.3-21.7) ($p<0.05$). Significant morphological differences between monocyte extracellular traps in RA patients and control group are not revealed.

Conclusion: RA is a systemic inflammatory autoimmune disorder. The pathogenesis of RA is complex. The formation of extracellular traps by the monocytes/macrophages may be one of the links in the pathogenesis of RA.

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DATA ANALYSIS OF THE "REGISTRO ESPAÑOL DE FRACTURAS" FLS SEIOMM (REFRA)

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Bone fragility fractures represents a major public health issue that, currently, does not have the adequate procedures of prevention, diagnosis, assessment, intervention and monitorization of the patients. The mortality associated to fragility fracture in the EU countries is higher than in many other chronic diseases. In Spain in 2017 there were around 330 000 fragility fractures, with a sanitary cost of 4 200 million euros. The ongoing and prospective Registro Español de FRActuras (REFRA-FLS SEIOMM) started in 2018. The aim was to create a multicentric register of the epidemiologic, clinic, functional and healthcare features of the fragility fracture patients, as well as their monitorization. The aim of this communication is to get to know the first preliminary descriptive data.

Attended people with fragility fracture diagnosis in some of the REFRA participant hospitals between July 2018 and December 2019, was included. In the statistical analysis was used the mean and the standard deviation or the mean and the interquartile ranks for the numeric variables; and the percentage for the categorical variables.

It was registered 1556 bone fragility fracture patients; with a mean age of 79, 80% of women and 20% of men. Only 25.89% had the osteoporosis diagnostic, and only 12.08% osteoporosis treatment; although 32.78% of the patients had a previous fracture, with the prevalence of radius distal and vertebral. Fracture index recollected is 59.14% hip, 10.30% radius distal, 12,74% vertebral, 7.91% humerus, 3.39% pelvic, 6.25% others. The average time to fracture capture is 140.9 d. Cardiovascular and endocrine diseases are the most frequent comorbidities associated. The 60.78% of the patients have a high fall risk and fracture risk, through FRAX, for fracture higher than 16.16% and for hip fracture of 9.08%.