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AbstractBook

is eligible for treatment, then a woman with the same fracture probability but in the absence of a previous fracture should also be eligible. ITs were calculated for a woman of BMI 25 kg/m² aged 40-80 y with a previous fragility fracture sans other clinical risk factors. Fixed ITs were developed using a database of 1500 postmenopausal women who underwent DXA as part of routine clinical evaluation. MOFP and HFP were estimated using clinical risk factors and femoral neck BMD as input variables. Women were categorized to high risk and low risk groups according to the age dependent ITs. ROC analyses were performed with the risk category as the dependent variable and MOFP and HFP as independent variables. The best cut-points (fixed ITs) were determined considering the optimum sensitivity and specificity.

Results: The age dependent ITs of MOFP ranged from 1.8-6.9% and HFP ranged from 0.3-3% between 40-80 y of age. MOF IT of 3.75% and hip fracture IT of 1.25% were the best cut off values observed as the fixed IT and noninclusion BMD in the fracture risk estimations did not change the values. Hybrid IT for those <70 y was 3% for MOFR and 1% for HF. For those >70 y, the ITs are age-dependent.

Conclusion: ITs estimated in the current study are concordant with those reported from the neighboring countries. These can be used to identify high fracture risk patients in the Philippines.

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INCREASED URIC ACID VALUES IN PATIENTS WITH PSORIASIS: THE RISK OF DEVELOPING PSORIATIC ARTHRITIS

L.-I. Suiu¹, C. Criveanu², F. A. Vreju², A. E. Musetescu², P. L. Ciurea²

¹Doctoral School, University of Medicine & Pharmacy, ²University of Medicine & Pharmacy, Craiova, Romania

Objective: Psoriatic arthritis is a chronic inflammatory joint disease, which is part of the group of disease called spondyloarthritis, associated in most cases with skin damage. It is known for the diversity of its onset, evolution and response to treatment. Psoriasis is a chronic, inflammatory, systemic disease, with skin damage and with evolutionary potential for joint damage. The aim of this study is to identify a possible link between hyperuricemia present in patients with psoriasis and their risk of developing psoriatic arthritis.

Methods: A group of 37 patients diagnosed with psoriasis (21 men, 16 women) was studied, of whom 13 had psoriatic arthritis. The value of serum uric acid was measured by spectrophotometric method in all patients. The normal values are for men: <7 mg/dl, and for women: <5 mg/dl. The age of psoriasis was also assessed, ranging from 3-10 y.

Results: Of the 24 patients in the group with psoriasis who had not developed psoriatic arthritis, 2 (8.3%) were identified as having serum uric acid values above normal. Of the 13 patients diagnosed with psoriatic arthritis 3 (23%) had hyperuricemia. Two patients who had a disease history of 3 years

did not have hyperuricemia. From the rest of the patients, who had the disease of >3 y they had hyperuricemia as follows: one (20%) at 4 y of illness, and the rest at more than 6 y of illness.

Conclusion: It is known that psoriasis is associated with elevated serum uric acid. Following this study we can conclude that a higher percentage of patients with psoriatic arthritis had associated hyperuricemia than patients with psoriasis who did not develop arthritis. We can also conclude that a longer history of psoriasis could predispose the patient to hyperuricemia. Therefore, this correlation may influence the evolution of patients with psoriasis to psoriatic arthritis. More specialized studies are needed to support these conclusions.

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CHRONIC FATIGUE SCORES DEPEND ON THE LEVEL OF PHYSICAL ACTIVITY IN PATIENTS WITH RHEUMATOID ARTHRITIS

A. V. Aleksandrov¹, V. A. Aleksandrov², M. V. Nikitin³, N. V. Aleksandrova¹

¹Research Institute of Clinical & Experimental Rheumatology A.B. Zborovsky, Volgograd, ²Volgograd State Medical University, Dept. of Hospital Therapy, Volgograd, ³Sanatorium-Resort Complex "Vulan" - Scientific & Clinical Branch of the FSB Institution "National Medical Research Center for Rehabilitation and Balneology" of the Ministry of Health of the Russian Federation, Gelendzhik, Russia

Objective: Nonpharmacological treatment strategies can be used to reduce chronic fatigue in rheumatoid arthritis (RA) patients. This study aimed to evaluate the effect of a active lifestyle using aerobic exercise (walking) on changes in chronic fatigue in patients with RA in the short term.

Methods: 102 women with RA (mean age 54.8±11.3 y; duration of RA 9.5 [5;15] y; DAS28-SOE activity 2.85 [2.32;3.06] points; baseline fatigue on the VAS screening scale 71.2±9.1 points) were included in the study. Bristol Rheumatoid Arthritis Fatigue Numerical Rating Scales (BRAFF-NRS V2) was used to assess fatigue, 50-m walking test was used to assess the functional state of patients in dynamics. Patients' rehabilitation program (RP) (for 21 d) included morning hygienic exercises, dosed walking (daily, 30-60 min duration, taking into account physical exercise tolerance according to the 6MWD test) and walking in the air for up to 3-3.5 h/d.

Results: Patients were divided into two groups according to their level of physical activity (according to the average number of steps walked per day): group I (sedentary lifestyle) included patients with <5-6 thousand steps/d; group II (active lifestyle) included patients with ≥7-8 thousand steps/d. Physical parameters underwent significant changes in group II of RA patients (reduction of walking time and number of steps in 50-m test: p<0.001 and p=0.013, respectively) upon completion of RP. No significant changes were registered in patients with sedentary lifestyle (group I) (p=0.60 and p=0.54, respectively). In group I of RA pa-

tients, against the background of preserved fatigue scores on the NRS-severity and NRS-overcoming scales, there was even a slight increase in VAS fatigue ($p=0.008$) and NRS-effect ($p=0.01$). Patients with an active lifestyle (group II) demonstrated decreased fatigue severity on all scales: VAS ($p<0.001$), NRS-severity ($p<0.001$), NRS effect ($p<0.001$), and NRS-overcoming ($p=0.001$).

Conclusion: The BRAF-NRS is a useful research tool to identify the different aspects of fatigue most affected by nonmedicinal treatments. Increased physical activity with walking has a significant effect on fatigue in RA, suggesting a good short-term effect of aerobic exercise.

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AIR POLLUTION IS A PREDICTOR OF POOR RESPONSE TO BIOLOGICAL THERAPIES IN CHRONIC INFLAMMATORY ARTHRITIDES

G. Adami¹, A. Fassio¹, E. Bertoldo¹, O. Viapiana¹, D. Gatti¹, M. Rossini¹

¹Rheumatology Unit, University of Verona, Verona, Italy

Objective: There is increasing evidence that environmental air pollution is associated with both development of chronic inflammatory arthritides (CIA). The role of air pollutants on the treatment response of CIA (including psoriatic arthritis [PsA] and ankylosing spondylitis [AS]) is still unclear. The aim of the present study is to determine the association between the concentration of air pollutants and biological drug retention rates in CIA.

Methods: We retrieved longitudinal data of patients affected by CIA on biological therapies and of the daily concentration of air pollutants in the Verona area. We designed a case-crossover study to compare the exposure to pollutants in the 30-d and 60-d periods preceding a drug switch or swap due to disease progression referent to the 30-d and 60-d periods preceding a visit with stable treatment for at least 6 months.

Results: 1286 patients with CIA (888 with RA, 260 with PsA and 138 with AS) with 5454 follow-up visits were included in the study. 13,636 daily air pollution records were retrieved. We found an exposure-dependent relationship between exposure to air pollutants and CRP serum levels in CIA. At PM10 exposures of $>50 \mu\text{g}/\text{m}^3$ and $>40 \mu\text{g}/\text{m}^3$ we found a 150% and 65% higher risk of having CRP above 5 mg/L respectively (OR 2.564, 95%CI 2.114-3.110 and OR 1.659, 95%CI 1.440-1.910, respectively.). If the threshold was set at $>30 \mu\text{g}/\text{m}^3$ of PM10 (below the European Union health protection limit) we still found a 38% higher risk of having altered CRP (OR 1.383, 95%CI 1.206-1.588). Among CIA patients, 280 patients (21.7%) had at least 2 follow-up visits with at least one drug switch or swap due to drug inefficacy and one visit with stable treatment for at least 6 months, serving as our sample for the case-crossover study. We found that air pollutants concentrations were higher before a switch or swap due to drug inefficacy (Figure 1A). Figure 1B shows the receiver operating characteristic (ROC) curve for the prediction of switch or swap due to drug inefficacy.

Discriminatory capacity of disease activity alone was the highest (AUC 0.841) but when the prediction model included the concentrations of air pollutants in the 60 d before the visit the discriminatory capacity increased (AUC 0.879).

Conclusion: We found that environmental air pollution was a determinant of poor response to biological treatment in a cohort of patients with CIA followed over a 5-y period. An intervention aimed to decrease the fossil combustion emissions might have beneficial effects on biologics persistence rate of patients with CIA.

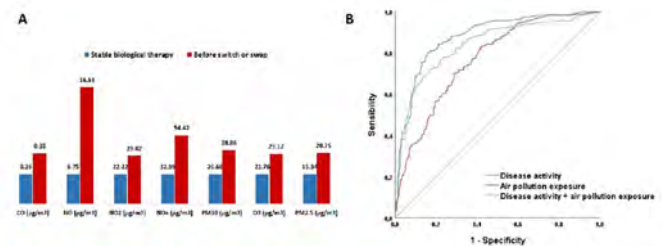


Figure 1. A) Mean concentrations of air pollutants in the 60-d period before switch or swap visit compared to the stable treatment visit. $p<0.001$ between all groups. B) ROC curves for the prediction of switch or swap due to drug inefficacy

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DIFFUSE IDIOPATHIC SKELETAL HYPEROSTOSIS (DISH) IS ASSOCIATED WITH POOR PROGNOSIS IN YOUNG PATIENTS WITH CORONARY ARTERY DISEASES (CAD)

G. Adami¹, A. Fassio¹, E. Bertoldo¹, O. Viapiana¹, D. Gatti¹, M. Rossini¹

¹Rheumatology Unit, University of Verona, Verona, Italy

Objective: DISH has been largely associated with metabolic syndrome. However, it is not clear if DISH poses a risk of developing cardiovascular diseases (CVD) independently from traditional CV risk factors. In addition, an association between the extension of vertebral calcification and the severity of CAD has never been demonstrated.

Methods: We conducted an observational study on patients undergoing diagnostic coronarography at the cardiology department of the University of Verona, Italy. We collected clinical and radiographical data of the patients in the study, as well as the SYNTAX II score. The SYNTAX II score characterizes the anatomical extent and prognosis of CAD in terms of the number of lesions, functional importance, and complexity, SYNTAX II >34 is commonly considered a poor prognostic factor for revascularization. To determine the association between severity of CAD and DISH we performed a binary logistic regression. Syntax II score