the groups I, B, and S showed significantly lesser intercepts than controls. Those differences were generally more significant for pre-menopausal women than for post-menopausal women or men.

Discussion: Despite of not affecting plasma glucose, the high FPI values would have enhanced all body weight, LM and BM. Assuming that LM reflects muscle mass, they would have also lowered the BMC/muscle proportion, perhaps reducing the bone/muscle ratio on the skeleton. This mechanical influence of muscle on the skeleton would evidence the influence of a shift in the set point (a typical bone tissue strain under the maximal customary loads of the bone 'mechanostat'). In addition, the apparent osteogenesis-dependence of the differences is congruent with the hypothesis that estrogens interact positively with that homeostatic system.

P424SU. VARIATION OF THE BONE MINERAL DENSITY IN WOMEN WITH OSTEOPOROSIS BEFORE AND AFTER TREATMENT: COMPARISON OF THE RESULTS BETWEEN DOMINANT AND NON-DOMINANT LIMBS


Introduction: Adequate physical exercise is a fundamental element in the prevention of osteoporosis and an auxiliary factor in its therapy.

Objectives: Evaluation of the influence of the preferred utilization of the dominant limbs in the daily tasks on the variation of the bone mineral density in postmenopausal women with osteoporosis undergoing anti-resorptive therapy.

Material and Methods: 80 postmenopausal women were distributed randomly to three groups receiving respectively the following therapies: 1. Calcium and Vitamin D3, 2. Calcium and Alendronate, 3. Calcium and Calcitonin. Osteodensitometric assessments were performed via DEXA (Hologic QDR 4500 Elite) of the lumbar column and in the proximal portion of the femur before and after 12 months of therapy. At the beginning of the study the mean values of the bone mineral density of the dominant and non-dominant limbs were evaluated. At the end of the survey the mean variation of the mineral osseous density was determined. The statistically significant differences of the mineral osseous density and the percent variation over 12 months between dominant and non-dominant limbs were analyzed using the Wilcoxon test.

Results: The mineral density of the bones at the beginning and the mean annual variation do not show any statistically significant difference between the dominant and non-dominant limbs.

Conclusion: The preferred use of the dominant limbs in the execution of daily tasks does not play a relevant role in the variation of the mineral mineral density in postmenopausal women with osteoporosis undergoing anti-resorptive therapy during one year.

P425SU. TOTAL HIP ARTHROPLASTY: CAN WE PREVENT BONE LOSS?

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We measured the femoral prosthesis bone mineral density in 33 total hip arthroplasties. It is a prospective, single-center controlled study, comparing 20 patients treated with Alendronate 10 mg (ALN) coupled with 900 mg calcium daily and 13 total hip arthroplasties used as controls. All patients were females, having physiological menopause, free of any disease known to influence bone metabolism, with a mean age of the Alendronate group of 45.3 years and a mean age for the control group of 62.6 years. The component used in all treated hips is cemented 28-mm head and stem. All patients were followed up for two years. The measurement was performed postoperatively at days four (D4), one (D1), 3, 5, 12 and 24 months after the operation. Measurements included the controlateral hip and the hip joint. Bone resorption was measured in all treated hips. In the treated group, Alendronate significantly reduced compared to controls. Alendronate might be useful in total hip arthroplasties, in reducing bone resorption and can preserve bone stock at least in early stages.

P427SU. INFLUENCE OF CALCIUM INTAKE, BASDAI AND BASMI INDEXES ON BONE MINERAL DENSITY IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Aims: Patients with ankylosing spondylitis (AS) seem to have a higher risk of osteoporosis. The aim of our study was to look at the influence of the dietary calcium content, disease activity and structural status on bone mineral density (BMD) in a group of patients with AS.

Methods: We examined 20 patients. 9 men and 11 women, with AS fulfilled the modified New York criteria. BMD was measured...