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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 FM. Assuming that LM reflects muscle mass, they would have also lowered the BMC/muscle proportion, perhaps reducing the mechanical influence of muscles on the skeleton. This would evidence the induction of a shift in the setpoint (a typical, -0.2% bone tissue strain under the maximal customary loads) of the bone 'mechanostat'. In addition, the apparent estrogen-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 THERAPY. COMPARISON OF THE RESULTS BETWEEN DOMINANT AND NON-DOMINANT LIMBS

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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 execution of the daily tasks on the variation of the bone mineral density in postmenopausal women with osteoporosis undergoing anti-reabsorbing therapy.

Material and Methods: 80 postmenopausal women were distributed randomly to three groups receiving respectively the following therapeutics: 1. Calcium and Vitamin D3, 2. Calcium and Alendronate, 3. Calcium and Calcitonin. Osteodensitometric assessments were performed via DEXA (Hologic QDR 4599 Élite) of the lumbar column and in the proximal portion of the femur and the distal portion of the forearm 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 execution of daily tasks does not show any relevance/ is not reflected in the variation of the mineral osseous density in postmenopausal women with osteoporosis undergoing anti-reabsorbing therapy during one year.

54. P425MO. THE ORTHOPAEDIC SURGEON AS A CLINICAL DENSITOMETRIST: EVALUATION OF COST AND TIME EFFECTIVENESS

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We feel an orthopaedic surgeon can efficiently and economically perform the duties of a clinical densitometrist. This hypothesis reflects a philosophy that orthopaedic surgeons must take a more active role in evaluating patients for osteoporosis, and initiating treatment or referring them for treatment. We evaluated the cost/time effectiveness of an orthopaedic surgeon and his medical assistant in completing reports and related correspondence for dual-energy x-ray absorptiometry (DXA) scans. Templates were

used to prepare scan reports for primary care providers (PCPs) and patient letters. Analysis of time-log data from 114 scans (106 new scans; 8 follow-up scans) showed that the surgeon required 9.8 ± 2.8 minutes to complete a report, and the medical assistant required 5.5 ± 2.5 minutes for clerical/correspondence duties, including addressing and mailing envelopes, making telephone calls about previous bone-density reports, calling patients about their PCP and/or calling the patient's PCP. Radiology technician time was not analyzed. The surgeon was able to complete 5 to 6 new scan reports per hour. Follow-up scans required 15 to 20 minutes for report preparation. Cost analysis demonstrated that the time required to create reports for initial scans was an efficient use of a surgeon's time. However, greater than 15 scan reports/week were considered by the surgeon to be excessively burdensome, and cost analysis revealed that >15 /week was an inefficient use of the surgeon's time. A more cost/time efficient system may be for an adequately trained medical assistant to perform most of the clerical and interpretive (report) duties required in completing DXA reports. This system is considered essential when scan volume exceeds 50-60/month. But for this system to work, close supervision by the orthopaedic surgeon is required to ensure accuracy and quality control.

P426SA. TOTAL HIP ARTHROPLASTY: CAN WE PREVENT BONE LOSS?

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We measured the femoral periprosthetic bone mineral density in 38 total hip arthroplasties. It is a prospective, single center controlled study, comparing 20 patients treated with Alendronate 10 mg (ALN) coupled with 600 mg calcium daily and 18 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 for the Alendronate group of 63.3 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 prostheses. All patients were followed up for two years. The measurement was performed postoperatively at day four (D 4), 1, 3, 6, 12 and 24 months after the operation. Measurements included the contralateral hip and the A/P spine. Bone resorption in hips treated with ALN was 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 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