

Conclusions: Arg16Gly and Gln27Glu polymorphisms in the gene encoding Beta-2 Adrenergic Receptor (ADRB2) may be risk factors for reduced bone mineral density in females.

P03 -IDENTIFICATION OF NEUROPATHIC PAIN COMPONENT IN PATIENTS OF VARIOUS AGE WITH KNEE OSTEOARTHRITIS

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Introduction: Osteoarthritis-induced pain is a result of nociceptor stimulation, associated with local tissue damage and inflammation. Recent data suggest the presence of neuropathic pain symptoms in patients with osteoarthritis.

Objectives: The aim of this study was to estimate the structure of pain syndrome, reveal the presence of neuropathic pain (NP) component, symptoms and signs of NP in patients suffering from knee osteoarthritis.

Methods: We've examined 44 patients with knee osteoarthritis of the II-III stages by the Kallgren-Lawrence scale aged 47-85 years (average age 66.1 ± 1.5 years). To assess the NP component, we used screening scales painDETECT, LANSS, DN4 questionnaires. To assess intensity of pain, visual analogue scale (VAS) was used. Besides WOMAC and EuroQol-5D questionnaire were applied. For statistical analysis of results, ANOVA, correlation and regression analysis was applied.

Results: 4.6% of patients with knee osteoarthritis examined by painDETECT were likely to have the NP component. LANSS scale: 25% were probably to have NP. DN4 scale: 31.2% probably had NP. Moderate to significant correlations were found between intensity of pain by VAS data and Neuropathic Pain Scales (painDETECT, LANSS, DN4) data ($p < 0.05$). It was established that higher results of screening by painDETECT and DN4 positively correlate with a disturbance of physical function tested by WOMAC ($p < 0.05$). PainDETECT data have moderate to significant correlations with EuroQol-5D questionnaire ($p < 0.01$). Verbal descriptors as pins and needles, tingling, numbness and allodynia, pain from light touch which are revealed by 3 screening scales can significantly contribute to the likely neuropathic component in patients with knee osteoarthritis ($p < 0.05$). Burning pain ($p < 0.01$), pins and needles ($p < 0.05$) can be associated with a more severe pain in patients with knee osteoarthritis.

Conclusions: Thus, in patients with osteoarthritis the pain syndrome may reveal NP features. Identification of these would promote a targeted treatment strategy.

P04. EVALUATION OF BONE MINERAL DENSITY IN ADOLESCENTES WITH ANOREXIA NERVOSA

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Introduction: One of Anorexia Nervosa's (AN) most frequent complications is the loss of bone mass, which represents a serious problem in adolescence, as it may reduce the peak bone mass attained, leading to osteopenia and osteoporosis.

Objectives: The objective of our study was to evaluate the prevalence of the reduction of Bone Mineral Density (BMD) in adolescents with AN, and its relation to anthropometric data (weight, height and BMI).

Methods: 66 adolescents with AN, referred to the Santo António Hospital Nuclear Medicine service between 2008 and 2015, were

retrospectively studied. A Hologic QDR-4500 densitometer was used to calculate BMD, Z-score and BMC. The correlation between variables was determined by linear regression analysis. The significance level was established at $p \leq 0.05$.

Results: The studied population presented average values of 0.86 ± 0.11 g/cm² of BMD, -0.67 ± 1.21 of Z-score and 26.82 ± 15.05 g of BMC. 14% of patients presented with bone mineralisation values below the variation expected for the age (Z-score < -2), it being that 40% of patients had a reduction of bone mass, defined, in this study, by a Z-score < -1 . Further, there was a significant correlation between the anthropometric data and bone mineral density, more notorious in relation to weight and to BMC.

Conclusions: The results showed that, in an adolescent population with AN, more than half of the individuals show no significant changes in BMD. These results are similar to those of previous studies and demonstrate that, in the disease's initial stages, BMD is relatively maintained. This study stresses the importance of early diagnosis of AN in adolescents, so as to find strategies to prevent loss of bone mass in this age group and impede the reduction in peak bone mass expected, which could leave to future severe complications.

P05. OSTEOPOROSIS IN NEUROLOGICAL DISORDERS

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Introduction: Neurological disorders, notably stroke, Parkinson's disease and spinal cord injury are associated with increased falls risk and fracture risk.

Objectives: The aim of the research is to define the bone mineral density in patients, with neurological disorders.

Methods: We examined 48 men and women with Parkinson's disease (duration of Parkinson's disease was at list 5 years and all were on L-dopa treatment), 52 stroke patients (men and women), 21 patients with chronic spinal cord injury (AIS score A, B) and healthy people of appropriate age.

Results: BMD of patients with Parkinson's disease was significantly lower compared with BMD of healthy persons, both men and women (BMD lumbar spine women = 1.00 ± 0.15 vs 1.11 ± 0.15 g/cm², $p < 0.05$, the difference of BMD was about 15%, and BMD lumbar spine men = 1.16 ± 0.24 vs 1.29 ± 0.24 g/cm², $p < 0.05$). BMD stroke patients was also significantly lower compared with BMD of healthy persons: (BMD lumbar spine = 1.13 ± 0.20 vs 1.28 ± 0.46 g/cm², $p < 0.05$, BMD total hip = 0.97 ± 0.18 vs 1.09 ± 0.25 g/cm², $p < 0.05$). In women the difference was significant at the level of the total body and distal forearm. In men, the difference was significant only in the group of the patients with moderate and severe paresis. BMD SCI patients was dramatically low (BMD lumbar spine = 1.14 ± 0.19 vs 1.24 ± 0.26 g/cm², $p < 0.05$, BMD total hip = 0.82 ± 0.28 vs 1.07 ± 0.27 g/cm², $p < 0.05$), the difference of BMD was about 23%.

Conclusions: BMD in men and women with neurological disorders (Parkinson's disease, stroke and spinal cord injury) was significantly lower than in healthy persons of the same age.

P06. EVIDENCE OF ISOFLAVONES USE IN OSTEOPOROSIS PREVENTION

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Osteoporosis is characterized by decreased bone mass and microarchitectural deterioration of bone, increasing fracture risk.

Menopause is a risk factor, in long term, to the increased incidence of osteoporosis. Attending to this subject importance, and in order to determinate the level of evidence of isoflavones prescription in osteoporosis prevention in postmenopausal women, it was considered pertinent the preparation of this review. We performed a literature search in databases of National Guideline Clearinghouse, Cochrane Library, Canadian Medical Association Practice Guidelines InfoBase, DARE, Bandolier, Evidence based Medicine online and Pubmed in the last decade studies in English and Portuguese, using the terms MeSH: "Isoflavones" and "Bone Density." For stratified the level of evidence and strength of recommendation, the SORT scale of the American Academy of Family Physicians was used. Inclusion criteria: PICO (Population: postmenopausal women; Intervention: isoflavones; Comparison: other treatments or no one; Outcome: prevention of decreased bone density). 282 articles were founded and 11 were selected for review, including 4 meta-analyzes, 3 systematic reviews and 4 randomized controlled trials. Analyzed studies revealed the existence of controversy in this subject. One meta-analysis and 3 systematic review concluded that isoflavones may prevent osteoporosis in postmenopausal women, however this effect will depend on factors such as the dose, the treatment duration and the time since menopause. It is also necessary to consider possible interactions between isoflavones and anti-osteoporotic drugs, so it is premature to recommend the prescription of these supplements. A meta-analysis was inconclusive. 4 clinical trials and 2 meta-analyzes concluded there is no benefit in supplementation with isoflavones in the prevention of osteoporosis. With this review we concluded that isoflavones may have some effect in preventing osteoporosis but there is insufficient evidence to justify their prescription for this purpose (level of evidence 1, grade A of recommendation).

P07. EARLY MENOPAUSE AND DECLINE OF BONE MINERAL DENSITY – A CLINICAL REPORT

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Osteoporosis is the most common bone disease characterized by increased loss of bone mass and deterioration of its microstructure, increasing the risk of fracture. There are multiple risk factors for its development, particularly affecting women after menopause. We report the case of 35 years old woman that came to our general practice consultation in January 2016, with complaints of intense back pain and low back pain without irradiation, with months of evolution, without history of previous trauma and pain with mechanical characteristics. From her case history stands out: early menopause when she was 21, secondary to chemotherapy and radiation therapy due to invasive ductal carcinoma of the breast in 2001; Acute lymphoblastic leukemia in 2006 followed by new chemotherapy, radiation therapy, long term corticosteroid therapy and bone marrow transplant in 2007; bilateral hip prosthesis after aseptic necrosis in 2008, with dysmetria of members. She remains being followed by Oncology. Bone densitometry in 2015 compatible with osteopenia, having as chronic medication calcium and cholecalciferol. On the objective examination, is observed limbing, without pain on palpation of the spinous process of vertebra or others changes. We prescribed topical anti-inflammatory, oral muscle relaxant and analgesic therapy. The radiography of column and bilateral hip excluded osteoporotic fractures. The osteoarticular complaints in this context could be attributed to an osteoporotic fracture, and bone metastasis, but this probability is reduced by frequent follow-up in oncology. Considering to early menopause and osteopenia, it is indicated supplementation with calcium and vitamin D. Furthermore, hormone replacement therapy is contra-indicated in this patient. The family doctor, with his holistic approach and continuity of care,

is essential in the early detection of the disease, taking into account the risk factors of this patient, and also in reinforcement of the implementation of long-term preventive measures (pharmacological and non-pharmacological).

P08. EPIDEMIOLOGY OF LOWER LIMB FRACTURES IN UKRAINIAN POPULATION

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Introduction: Fractures are a considerable public health burden but information on their epidemiology in Ukraine is limited.

Objectives: The aim of the study was to establish the incidence of lower limb fractures in Ukrainian population.

Methods: We identified 665 subjects from 76,765 citizens, living in Vinnitsa region, who had a first time (incident) diagnosis of lower limb fractures recorded in the regional Hospital database from 1.01.2011 to 31.12.2011.

Results: Frequency the lower limb fractures of was 42.4% from the total fractures in all patients and 44.4% from the total fractures in patient aged 50 years and older. The most common anatomic site of lower limb fractures was the tibia and/or fibula (48.9% of all incident lower limb fractures), followed by the hip (29.5%), and the tarsal/metatarsal bones (21.6%). Incidence of fracture in patient 50 years and old was 519.8 per 10,000 patient for lower limb fractures, 212.3 per 10,000 patient for tibia and/or fibula fractures and 226.9 per 10,000 patient for hip fracture. Lower limb fractures were more common among males than among females in the younger age groups (up to 39 years old). Among subjects 50 years and older the incidence of lower limb fractures was higher in women than in men, and the difference increased with increasing age. Incidence of the tibia and/or fibula fractures was 340.7 per 10,000 patient in the age group 60-69 years old, 44.9 per 10,000 patient in age group 70-79 years old, and 102.4 per 10,000 patient in age group 80-89 years old.

Conclusions: Our study provided the new information about the epidemiology of lower limb fractures in Ukrainian population according the age. This information is important for planning of the prevention and treatment strategy in patients of different ages.

P09. FEMORAL FRACTURE, REALITY IN A FAMILY HEALTH UNIT

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Introduction: Osteoporosis is characterized by low bone mass and deterioration of bone microarchitecture, weakening the bone and increasing the risk of fracture. Post-menopausal women and elderly men and women are the groups which are at greater risk of suffering from osteoporotic fractures.

Objectives: To assess the prevalence of hip fracture at the Family Health Unit and verify the indication for bone osteodensitometria.

Methods: Cross-sectional study. We analyzed all patients coded with the diagnosis of hip fracture (L75 coding) during the year of 2015. The data were obtained from the MIM@UF program.

Results: In the year of 2015, a total of 13 patients were coded with femoral fracture, with a prevalence of 0.13%. Regarding the sample of users, 4 were males and 9 of the patients were female. Patients were between 57 and 105 years old, with an average age of 83.7 years. Of the total patients evaluated, none previously had a bone osteodensitometria prescription or pharmacological treatment with anti-resorptive therapy.