

Methods: Children diagnosed with cerebral palsy and satisfying the inclusion criteria was selected for the study, severity and frequency of drooling (Thomas-Stonells drooling scale) drooling quotient and drooling impact scale was used as outcome measure.

Results: Paired t-test of significance will be used to estimate the difference in the drooling severity and frequency, drooling quotient and impact of drooling before and after treatment. There was a significant reduction in drooling frequency, severity, drooling quotient and drooling impact scale post treatment As the p value was <0.0001

Conclusion: The study concludes that sensory motor stimulation, kinesiotope and activities are effective in controlling drooling in cerebral palsy children.

P530

IMPACT OF RHEUMATOID ARTHRITIS ACTIVITY AND ANTICYCLIC CITRULLINATED PEPTIDES IN BONE MINERAL DENSITY DYNAMICS DURING THE 12 MONTHS THERAPY OF DENOSUMAB

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Objective: As it known the inflammation in rheumatoid arthritis (RA) leads to local and generalized bone loss. The use of such new antiresorptive drug as denosumab (monoclonal antibody that binds RANKL) decreases an osteoclast activity, increases BMD and also has potential influence on erosive process in RA. The aim of this study was to evaluate the effects of denosumab on BMD depending on RA activity and anticyclic citrullinated peptides (aCCP) positivity/negativity.

Methods: 66 postmenopausal women (mean age 59.6±7.4) with RA (mean duration 17.7±10.4 y) and osteoporosis (OP) received s/c denosumab 60 mg every 6 months pro 12 months. At baseline and after 12 months it was carried out DXA at 3 sites: lumbar spine (L1-L4), hip neck (HN) and distal forearm (DF) and x-ray of hands and feet (Sharp/van der Heijde score). RF-positive were 47 (72%), aCCP – 48 (74%) patients. 34 (49%) patients have continued glucocorticoids (GC). In previous studies we showed the significant evaluation of BMD in general (regardless of GC intake), the influence of different factors on BMD dynamics. The present study analyzed the BMD change in aCCP ± groups of patients and with different RA activity levels. The mean DAS-28 was 4.01±1.02 and it was not changed significantly after 1 y of therapy. According to DAS-28, 5 (7.6%) patients had 0 level of RA activity, 7 (10.6%) – 1, 45 (68.1%) – 2 and 9 (13.6%) – 3, respectively.

Results: After therapy it was noted that in group of patients with RA activity level 0 it was not any significant changes of BMD, probably because of small number of group. In group 2 (RA activity level 1) BMD in L1-L4 was significantly increased (p=0.02). In group 3, the largest group of patients in this study, the significant increase of BMD (p<0.05) was noted in L1-L4, hip neck and total hip. In group 4 the significant increase of BMD was noted in L1-L4 and total hip. In aCCP “+” patients the mean BMD was significantly increased (p<0.05) in L1-L4, hip neck, total hip and distal forearm while in aCCP “-“ patients the mean BMD was significantly increased only in L1-L4 and total hip.

Conclusion: Our study showed that the increase of BMD after the 12 months of denosumab therapy did not depend on initial RA activity. The increase of BMD in L1-L4 was noted in patients with low, moderate and high activity, as well as in hip in patients with moderate and high activity. Also it was shown that the increase of BMD in main sites of the skeleton is observed regardless of aCCP positivity/negativity.

P531

FRAX BASED OSTEOPOROSIS MANAGEMENT PATHWAY FOR UKRAINIAN MEN

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Objective: Ukrainian FRAX model for Ukraine was launched in 2016 and intervention thresholds for women were published in 2019. The impact of intervention thresholds for Ukrainian men was not explored. The aim of this research was to assess the impact of the use of these thresholds in Ukrainian men.

Methods: 653 men (age 60.5±11.8, range 40-88 y) referred as outpatients to the Dmitry F. Chebotarev Institute of Gerontology of the National Academy of Medical Sciences of Ukraine for the evaluation of skeletal status were studied. The 10-y probabilities of hip fracture and a major osteoporotic fracture were calculated using the Ukrainian FRAX model (version 4.2) with and without femoral neck BMD.

Results: 174 of 653 men (26.6%) had a prior fragility fracture and would be eligible for treatment on this basis. From the 479 males without a prior fracture, 447 were at low risk (68.5%) and were not be eligible for further assessment of fracture probability. The intermediate category of risk comprised 32 men (4.9%) in whom FRAX was recalculated with the inclusion of femoral neck BMD. Of these 23 were categorized at low risk (3.5%) and 9 at high risk (1.4%). Fracture probability calculated with BMD was higher than that without BMD. The disposition of the cohort in men was markedly different from that for women. 28% of men and 57% of women were eligible for antiosteoporotic treatment. The eligibility for treatment by FRAX alone was higher in women than in men (6.1 vs. 1.4% had a prior fragility fracture and were eligible for treatment). The requirement for BMD testing was also higher in women than in men (18.3 vs. 4.9%, respectively).

Conclusion: We have examined the assessment of fracture risk in Ukrainian men and compared their disposition with that of a referral population of women. 27% of men referred for skeletal assessment had a prior fracture that categorized eligibility for treatment, and this characteristic was less frequent than in Ukrainian women (51% of referrals).

P532

BURDEN ON CAREGIVERS OF HIP FRACTURE SURVIVORS: A SYSTEMATIC REVIEW

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Objective: To determine the caregivers' (CG)' burden of hip fracture (HF) patients and factors associated with CG burden.

Methods: A systematic search was done in PubMed using the terms “caregiver burden” or “caregiver outcome” or “caregiver stress” and “hip fracture” or “femur fracture” or “osteoporotic fracture”. Original studies (English language) on CG burden of HF patients published during last 10 y were selected. Review articles, meta-analyses and case reports were excluded and we followed the PRISMA guidelines.

Results: The original search resulted in 100 publications and based on selection criteria 11 studies (3 qualitative and 8 quantitative) were considered for this study. Quantitative studies have used different tools such as CG burden questionnaire, Zarit burden interview, SF-36 survey and pain scales. The majority of primary CG were either spouse or daughter of the patient and unemployed. CG had experienced moderate to high level of physical and emotional burden and limitations of personal freedom, emotional stability and self-efficacy. They have reported physical pain, limited rest and sleep, lack of social support and exposure to information and high medical costs. CG burden has shown significant associations

with system related factors (health care cost for treatments and palliative care, available health facilities, social support), patient related factors (existing comorbidities, functional status and activities of daily living, cognitive status) and CG related factors (age, self-efficacy and lack of exposure to information).

Conclusion: CG of HF survivors report moderate to high level of burden with limitations of physical, emotional and general health status. CG burden is associated with a multitude of factors related to system, patient and CG.

P533

HOW OFTEN DO MEDICAL DOCTORS ASSESS CALCIUM AND PHOSPHATE LEVEL IN THE BLOOD SERUM IN PATIENTS WITH VITAMIN D DEFICIENCY?

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Objectives: Vitamin D is required to maintain a normal blood level of calcium and phosphate, which are of crucial importance for normal bone mineralization, muscle contraction, nerve conduction, and general cellular function in all cells of the body. Vitamin D deficiency causes a decrease in the efficiency of intestinal calcium and phosphorus absorption. Adequate levels of calcium and phosphate ensure optimum PTH secretion, which in turn, stimulates the production of 1,25 dihydroxyvitamin D3 by the kidney. The aim of our survey was to find out the level of awareness on the need for assessment of calcium and phosphate in patients with vitamin D deficiency among healthcare providers.

Methods: We conducted a national online-based survey to collect the data on how frequently medical doctors evaluate calcium status by measuring total calcium, ionized calcium, calcium corrected for albumin and phosphate levels in patients with vitamin D deficiency. The survey included 704 physicians who specialized in various fields. Endocrinologists accounted for 80% of them.

Results: According to the survey results, the rate of physicians who measure total serum calcium, ionized calcium, calcium corrected for albumin and phosphate level in patients with vitamin D deficiency accounted for 70.5%, 69.1%, 41.9%, and 65.6% of medical doctors respectively. The survey revealed that 92.3% of all questioned endocrinologists assess calcium and phosphate metabolism.

Conclusion: Sequestration of the assessment of the parameters of calcium-phosphorus metabolism before the isolated determination of the level of vitamin D, including in the dynamics of its correction, is dangerous due to the potential underdiagnosis of various forms of hyperparathyroidism and the potentiation of hypercalcemia. Our survey revealed that endocrinologists assess calcium and phosphate levels in the blood serum more frequently in compare with other medical professionals. Raising awareness among health care providers in various fields on this matter will prevent mismanagement in terms of bone and mineral metabolism and will assist to prevent deleterious effects on patient's wellbeing.

P534

EFFICIENCY OF PHARMACOTHERAPY FOR LOWER JAW FRACTURES

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Objective: Acute maxillofacial trauma, accompanied by fractures of the lower jaw, more or less pronounced damage to the surrounding soft tissues, blood vessels and nerves, affects the entire body of the victim. Bone densitometry methods allow quantitatively, with high accuracy (from 2-5%) to determine the loss of bone mass in various parts of the skeleton at the stages of a person's life. This study aimed to study the structural and functional state of bone tissue in patients with mandible fracture and the effect of osteogenon preparation on fracture consolidation and bone tissue remodeling.

Methods: The study included 80 male patients with mandible fracture, aged 18-58 y. All patients first underwent splinting of bone fragments with a splint-brace with hook loops according to Tigerstedt. The teeth were set in the bite and fixed with a rubber rod.

Osteogenon (osseine-hydroxyapatite complex), used for systemic osteoporosis's prevention and treatment. Course is 2 tablets 2t/d for 14 d. In group II, treatment was carried out according to the generally accepted method (splinting, anti-inflammatory therapy). To assess bone metabolism, blood calcium and phosphorus were examined.

Results: From the initial data on the structural and functional properties of bone tissue in patients with mandible fracture made it possible to note that 40 (50%) of them had osteopenic syndrome, with high degree of reliability in comparison with the norm. Decreased levels of calcium and phosphorus in blood were noted. After treatment, the densitometric parameters significantly increased in group I. It remained within the normal range, but had a tendency to decrease in group II. Positive changes in mineral metabolism, was more pronounced in group I. So, we noted that group I treated with osteogenon had a double effect on bone tissue metabolism with stimulating and inhibitory effect on osteoblasts and osteoclasts respectively which is accompanied by an increase in calcium absorption.

Conclusion: Initial osteopenia with corresponding changes in densitometric and metabolic parameters is a predisposing factor in the development of mandible fracture. The greatest effect on the restoration of the structural and functional properties of bone tissue by the use of the drug osteogenon.

P535

LEVELS OF BONE METABOLISM MARKERS IN ADOLESCENTS WITH IDIOPATHIC SCOLIOSIS

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Objective: The steady increase in the incidence of idiopathic scoliosis (IS) in young people necessitates the search for informative prognostic markers of the progression of this pathology, which is required for their early treatment and prevention. This study aimed to study the levels of markers of bone metabolism in young people with IS.

Methods: We observed 152 adolescents aged 15-16 y (62 boys, 90 girls) with varying degrees of spinal deformity and 20 volunteers in control group. The average age of the patients were 15.26±0.04 y. The levels of markers of inert metabolism, such as osteocalcin in the blood serum (an indicator of osteosynthesis) and deoxyypyridinoline in the urine (an