WORLD CONGRESS
ON OSTEOPOROSIS,
OSTEOARTHRITIS AND
MUSCULOSKELETAL
DISEASES

VIRTUAL CONGRESS
March 24-26, 2022

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BILATERAL ADRENAL TUMORS AND LONG-TERM ANTIOSTEOPOROTIC MEDICATION

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Objective: The majority of bilateral adrenal tumours (BAT) are non-secreting adenomas. However, it is important to assess the influence on bone mass considering that even nonsecreting tumours can have autonomous cortisol secretion. (1-5) We aim to introduce a female patient with bilateral adrenal tumours and specific considerations in terms of osteoporosis therapy.

Methods: This is a case report. The patient agreed for anonymously use of her medical records.

Results: This is a 70-y patient who is admitted for adrenal and bone status follow-up. She was diagnosed with bilateral nonsecretory adrenal tumours 5 y ago when she also was recognized with osteoporosis (other diagnostics are gallstones, liver hemangioma, dyslipidemia, 2 episodes of kidney stones, hyperuricemia, chronic venous insufficiency). At first presentation, when BAT were detected, a part form low-normal values of CrossLaps and osteocalcin, bone metabolism assays were normal: 25OHD=35 ng/mL (N:30-100), CrossLaps=0.3 ng/mL (N: 0.33-0.782), P1NP=37 ng/mL (N: 20.25-76.31), osteocalcin=15 ng/mL (N:15-46), PTH=39 pg/mL (N: 15-65). Due to prevalent vertebral fractures, she had severe osteoporosis with DXA showing: lumbar L1-4 BMD(g/cm^2)=0.909, T-score(SD)=-2.5, Z-score(SD)=-1.2; femoral neck BMD(g/cm^2)=0.794, T-score (SD)=-1.8, Z-score (SD)=-0.6; total hip BMD (g/cm^2)=0.818, T-score (SD)=-1.5, Z-score (SD)=-0.7; 1/3 distal radius BMD(g/cm^2)=0.560, T-score (SD)=-2.1, Z-score (SD)=-0.8. She started teriparatide treatment (2-y protocol). After 2 y, there was no incidental fracture and DXA showed a BMD improvement: lumbar L1-4: BMD(g/cm^2)=0.984, T-score(SD)=-1.6, Z-score(SD)=-0.1; femoral neck BMD(g/cm^2)=0.797, T-score (SD)=-1.7, Z-score (SD)=-0.3; total hip BMD (g/cm^2)=0.848, T-score (SD)=-1.3, Z-score (SD)=-0.1. She continued for 3 y with ibandronate every 3 months, with continuing the increase of BMD-DXA: lumbar L1-4 BMD(g/cm^2)=0.959, T-score(SD)=-1.8, Z-score(SD)=-0.5; femoral neck BMD(g/cm^2)=0.807, T-score (SD)=-1.7, Z-score (SD)=-0.3; total hip: BMD (g/cm^2)=0.833, T-score (SD)=-1.4, Z-score (SD)=-0.3; 1/3 distal radius BMD(g/cm^2)=0.494, T-score (SD)=-3.1, Z-score (SD)=-1.4. The same antiosteoporotic regime was recommended.

Conclusion: In this case, we mention: BAT might have a mild intermittent cortisol excess without clear diagnostic of Cushing syndrome (as we found in this patient over the years), thus it is essential to pay attention to bone status in menopausal women, unless bilateral adrenalectomy is decided. TPT might be the first option of therapy under these specific circumstances.

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PREVALENCE OF METABOLIC DISORDERS IN PATIENTS WITH RHEUMATOID ARTHRITIS AND PSORIATIC ARTHRITIS

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Objective: To study associated metabolic disorders in patients with inflammatory rheumatic diseases (IRD).

Methods: The study included 100 patients with rheumatoid arthritis (RA) aged 18-69 years old (91% women; mean duration of disease 9 [3.5;15] y) and 60 patients with psoriatic arthritis (PsA) aged 26-67 years old (85% women; mean duration of disease 10.2 [4;17] y). The presence of metabolic syndrome (MS) was diagnosed using the National Cholesterol Education Program / Adult Treatment Panel III (NCEP/ATPIII; 2004) criteria. Thyroid dysfunction (TD) was determined by biochemical and ultrasound examinations. Osteodensitometry (Lunar DPX, GE, USA) with estimation of BMD was used to diagnose osteoporosis (OP).

Results: Data from the cross-sectional study showed a high percentage of detectable MS signs in patients with both RA (46%) and PsA (70%) (p=0.003). The prevalence of OP in patients with RA was significantly higher than in patients with PsA (32% and 15%, respectively, p=0.017). There were no differences in the prevalence of TD in patients with different IRD (18% in RA vs. 26.7% in PsA). Signs of subclinical hypothyroidism (SH) occurred in both RA and PsA (6/18; 30.3% and 8/16; 50%, respectively). Subclinical hypothyroidism was more common in women with PsA than with RA (p<0.001). Recently, there has been an increased incidence of new cases of hypothyroidism as a manifestation of thyroid dysfunction in patients with RA and PsA, especially in women with metabolic disorders. The combination of SH and low BMD was determined more frequently in RA patients with MS than in PsA

patients (9/46; 19.6% vs. 2/42; 4.8%, p=0.036). The possible benefits of therapeutic effects on MS components in such patients remain to be evaluated.

Conclusion: The high incidence of comorbidities (MS, OS, SH) in patients with IRD requires following the existing recommendations for their timely detection and treatment, as well as endocrinologist consultation. The frequent combination of hypothyroidism with RA and PsA characterizes it predominantly as a concomitant pathology rather than as an isolated chronic thyroid disease.

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ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH LOW-ENERGY FRACTURES USING THE RUSSIAN NATIONAL REGISTRY FOR THE PATIENTS ENROLLED INTO FRACTURE LIAISON SERVICES

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Objective: The results of many studies show that fragility fractures cause the significant loss of quality of life and prolonged recovery from injury. We aimed to assess quality of life in patients before osteoporotic fracture and 4-6 months after trauma.

Methods: Russian Association on Osteoporosis (RAOP) developed of a registry PROMETHEUS of the patients recruited into fracture liaison services. We used the EQ-5D questionnaire to assess patients' quality of life before the fracture and 4-6 months after injury, using the data from the registry. We used Fisher exact test, analysis of variance (ANOVA) and Student t-test.

Results: As of 29.12.2021, data on 521 patients were introduced in the registry, mean age is 72.6±10.00 y. Prefracture quality of life score was significantly lower in women compared with men (0.71 vs. 0.79, p<0.05). Depending on the patient's age, no significant differences were obtained. Patients with hip fracture had an EQ-5D score 0.70, it was lower than in patients with humerus (0.78, p<0.01) and distal forearm (0.77, p<0.05) fractures. Patients with

vertebral fracture had an EQ-5D score 0.72, it was lower than in patients with humerus fracture, p<0.05. In the presence of 3 or more chronic diseases, quality of life was significantly lower than in patients without any other diseases or in presence of 1-2 diseases, p<0.05. 196 patients were interviewed in the period 4-6 months after fracture. We revealed significantly decreased quality of life in men comparing with the data before the fracture (0.61 vs. 0.77, p<0.05). Also it was significantly reduced in patients with hip fracture (0.60 vs. 0.69, p<0.05) and in patients over 80 years old (0,53 vs. 0,61, p<0.05). In women, patients in younger groups, in those who fractured vertebrae or bones of upper extremity, EQ5D score in 4-6 months after the fracture was similar to the data before the fracture.

Conclusion: In patients with low-energy fractures quality of life measured by EQ-5D before the fracture was significantly lower in women, in patients who had more chronic diseases and who got hip and vertebrae fractures. During the period of 4-6 months after fracture, quality of life remained significantly lower than it had been marked before injury in men, patients aged 80 years and over, and those who suffered from hip fracture.

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SEASONALITY OF HIP FRACTURES BEFORE AND DURING COVID-19 PANDEMIC: A RETROSPECTIVE STUDY

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Objective: Osteoporotic fractures are prevalent worldwide. Regarding hip fractures, some studies suggest a seasonal pattern, namely higher rates in the Winter, probably attributed to adverse climacteric conditions. With the advent of the pandemic, people were forced to stay at home, which theoretically decreased their susceptibility to those adverse conditions.

The purpose of our study is to evaluate whether there is a seasonal pattern in hip fractures occurrence before the COVID-19 pandemic and whether that pattern remains present in the first year post-COVID-19.

Methods: Retrospective study of patients with hip fractures between January 2019 to March 2021. Patients were divided into two groups according to fracture timing: prepandemic (January-December 2019) and pandemic (April 2020-March 2021). Fractures happening between January-March 2020 were excluded. Number of fractures, demographic data, comorbidities, and clinical results were collected. Descriptive analysis was performed, using medians and interquartile range for continuous data and frequencies