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seems to be a promising approach. In our cohort, a cut-off value of 19 pg/ml at 24h after surgery showed a good sensitivity and specificity. Serum vitamin D levels were not performed preoperatively. This can be considered a limitation of our study.

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EP1171

A case of postgravid osteoporosis

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Republican Specialized Scientific and Practical Medical Center of Endocrinology named after academician Yo.Kh.Turakulov, Tashkent, Uzbekistan, Diabetology, Osteoporosis and Metabolism

Introduction
Of interest are cases of osteoporosis of unknown etiology after a recent delivery.
Matherials and methods
A 33-year-old woman complained of frequent fractures of the bones of both feet (four times in the last year) after the birth of her third child. For the woman, this was the fourth pregnancy, according to her, after the birth of her second child, she had pain in the lower back, which aggravated with physical exertion (at 24 years old).
Results
The patient's calcium level was 2.37 mmol/l, phosphorus 1.25 mmol/l, vitamin D - 20.07 ng/ml, parathyroid hormone - 50.04 pg/ml, NTx - 79.74 nM BCE (normal 17- 94 nM BCE), osteocalcin - 5.28 ng/ml (normal 6-43 ng/ml), alkaline phosphatase - 60.0 U/l. Dual-energy x-ray absorptiometry (DEXA) showed that the Z-score of 1-4 lumbar vertebrae was -3.3, the left hip was -2.2, the neck of the left femur -2.3, the right hip -2.8, the neck right thigh -2.0. The analysis of the obtained results showed that the resorption markers were within the normal range, and the formation markers were below the norm, therefore it was advisable to prescribe teriparatide, but due to the lack of access to teriparatide in our country, we prescribed the patient a calcium preparation 1000 mg per day, osteogenon 6 tablets per day, alendronic acid 70 mg per week and vitamin D at a dose of 300,000 IU. Repeatedly after 2.5 months, all parameters remained unchanged, except for vitamin D (20.07→34.89) and NTx (79.74→75.60), osteocalcin (5.28→2.93), alkaline phosphatase also decreased (60→54). The patient was then switched to teriparatide 20 mg subcutancously once daily. After 6 months, during therapy with teripartide, osteocalcin increased from 2.93 to 13.82, the same situation was observed in relation to alkaline phosphatase (54→185). X-ray densitometry parameters also had positive shifts: Z-score of 1-4 lumbar vertebrae increased from -3.3 to -2.6, Z-score of the left hip -3.2→2.9, right hip -2.8→2, 6. Based on the positive changes in the results of laboratory and functional studies, it was recommended to continue therapy with teriparatide. The patient is being monitored.
Conclusion
Pregnancy and the lactation period are physiological for a woman's body, the development of osteoporosis during pregnancy and lactation, not due to other reasons, requires further research.

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EP1172

Osteoporosis after menopause: interaction between genes related to iron metabolism and estradiol

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Introduction
Osteoporosis is a common metabolic bone disease characterized by reduced bone mass and increased risk of fragility fractures. The pathogenesis of this disease is complex and influenced by multiple risk factors, where genetic factors play an important role. Menopause predisposes women to osteoporosis due to declining estrogen levels. Osteoporosis and iron metabolism have an important relationship. Iron overload suppresses osteoblast formation and stimulate osteoclast resorption of bone, suggesting that polymorphisms in genes affecting iron homeostasis can increase the susceptibility for the development of osteoporosis.
Objectives
This study aimed to investigate the potential implication of genetic polymorphisms in genes related to iron metabolism and their interaction with estradiol in the development of osteoporosis in a sample of postmenopausal women.
Material and methods
A case-control study was carried out for a sample of 169 Portuguese postmenopausal women, of which 78 had osteoporosis and 91 had normal bone mass. Polymorphic analyzes on the *HFE* gene (H63D and C282Y) were performed by PCR-RFLP. The haptoglobin (*Hp*) phenotype was determined by polyacrylamide gel electrophoresis. Plasma 17β-estradiol concentration was determined by ELISA. All statistical analyzes were performed using SPSS software, version 24.0.
Results
An association was found between lower levels of 17β-estradiol and osteoporosis [OR (95% CI) = 5,946 (2,199-16,079); $P<0.001$]. When the genes were analyzed separately, no significant differences were found between the two populations in relation to the polymorphisms under study. However, women with the presence of the H allele of the H63D polymorphism of the *HFE* gene and lower levels of estradiol had an increased risk of developing osteoporosis [OR (95% CI) = 22,750 (2,492-207,731); $P=0.001$], as well as the presence of the CC genotype of the C282Y polymorphism of the *HFE* gene and lower levels of estradiol [OR (95% CI) = 11,667 (2,139-63,638); $P=0.002$]. Also women who had the *Hp* 2 allele and lower levels of estradiol had an increased risk of developing osteoporosis [OR (95% CI) = 7,023 (1,813-27,200); $P=0.005$].
Conclusion
Since these genes are related to iron metabolism, the results of this study suggest an action of this metabolism in interaction with estradiol levels in the development of osteoporosis in postmenopausal women.

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EP1173

Primary hyperparathyroidism-induced osteoporosis: lessons from the DENOCINA trial

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An 89 years old caucasian female patient with antecedents of hemithyroidectomy in 2016 due to benign nodular disease, and actually suplemented with 0.1 mg/day of levothyroxine, was referred to the Endocrinology consultation because of a primary hyperparathyroidism diagnosed in the sequence of the study of an episode of nephrolitiasis that happened in 2012 and a diagnosis of osteoporosis that was established in 2017. A 99mTc-Sestamibi revealed an augmented right inferior parathyroid gland. Although the patient had surgical indication for paratiroidectomy (symptomatic hyperparathyroidism), it was decided to treat the patient medically, because of her age and functional dependence, with the agreement of the patient and her family. She was initially treated with alendronic acid 70 mg once week during 5 years, but without significant response in terms of bone mineral density, hypercalcemia and osseous pain. The treatment was then switched to denosumab 60 mg twice year in 2020, and, in 2021, because the hypercalcemia didn't ameliorate, inspired by the results of the DENOCINA trial, we decided to introduce, in add-on, cinacalcet, initially in the dose of 30 mg/day. The calcium was 11.5 mg/dL and the PTH was 147 pg/mL (with adequate levels of vitamin D) before the initiation of cinalcalcet. Actually, 4 months after the initiation of cinacalcet, with a dose that was titrated to 60 mg/day, the calcium is in the upper limit of the normality (10.5 mg/dL) and the PTH has fallen to 85 pg/ml. But most important, the patient tolerated well both drugs, did experience an improvement in the osseous pain and gained more autonomy in the accomplishment of her daily activities.

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EP1174

miR-15b mediates the obesity-induced adipocyte insulin resistance by targeting insulin receptor

Xingjing Liu