THE IMPORTANCE OF THE INFLUENCE OF VITAMIN D IN THE BONE DENSITY IN WOMEN WITH POST-MENOPAUSAL OSTEOPOROSIS WITH CONCOMITANT DEFORMING OSTEOARTHROSIS

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The aim of the study. 30 post-menopausal women with the concomitant deforming osteoarthrosis participated in the study. They were divided into two groups depending on the state of the bone mineral density: group I included 23 patients with post-menopausal osteoporosis (T-score ≤ -2,5 SD). The patient's average age was 57,5 ±4,2 years. The duration of the menopause was 8,16 ± 6,03 years. Group II was a reference one (bone mineral density ≥ -1,0 SD, absence of the fractures in the medical history). The patient's average age was 56,8 ±6,5 years. The duration of the menopause was 8,3 ± 6,6 years. The bone mineral density screening was conducted with the help of the DXA-scan of the lumbus vertebras and the aspect of the femoral neck. Initially, all women were checked for level 25(OH) of vitamin D_3 in blood serum with enzyme-linked immunoassay.

Results of the study. The majority of post-menopausal women with the concomitant deforming osteoarthrosis (82%) exhibit deficiency or deficit of vitamin D_3 regardless of the state of bone mineral density. The standard dose of cholecalciferol 800 IU per day is insufficient to maintain the level of vitamin D_3 in the normal range (>20 ng/ml) as a part of the post-menopausal osteoporosis comprehensive treatment. Prior saturation with cholecalciferol in a dose of 5000 IU per day for 12 weeks allows achieving normal levels 25(OH) of vitamin D_3 in 12 weeks for 88% of patients. The following cholecalciferol supportive treatment in a dose of 800 IU per day for 12 months resulted in maintaining the value of vitamin D_3> 20 ng/ml in 44,4% of women.

Conclusion. Determining the level 25(OH) of vitamin D_3 allows for detecting the patients with deficiency or deficit of vitamin D_3 and monitoring the cholecalciferol treatment. It is preferable to correct vitamin D deficit or deficiency in case of vitamin D hypovitaminosis to prevent the bone tissue mineralization defects. The maintenance dose of cholecalciferol, which is 800 IU per day is insufficient for comprehensive treatment of post-menopausal osteoporosis.