were accessed by DXA. Body mass index (BMI) was also calculated. Adequate statistical tests were used (statistical significance $p < 0.05$).

Results: The mean 25(OH)D after supplementation with vitamin D was significantly higher :16.2 (± 6.7) vs 26.6 (± 9.1) ng/ml, $p < 0.05$. A significant reduction in the mean total cholesterol [180.3 (± 20.2) vs 164.6 (± 21.9) mg/dl, $p = 0.033$) was detected after one year of vitamin D supplementation. However, no changes were observed in the mean LDL-cholesterol, HDL-cholesterol, triglycerides, glycaemia, HbA1c neither in the means of other anthropometric variables.

Conclusions: In T2DM women treated with antidiabetic oral medications and supplementation with vitamin D, a significant increase in the mean total cholesterol was observed and no change in the glycemic control or the remaining lipid profile was detected. The results of this study are consistent with the data of recent studies, which suggest that vitamin D is a possible marker of the general health, but not a potential therapy for T2DM.

WCO06. THERAPY OF PEOPLE WITH MUSCULOSKELETAL SYSTEM DISEASES AND VITAMIN D DEFICIENCY

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Introduction: We have seen no well-defined approach to calculating vitamin D dose in patients with musculoskeletal system diseases and vitamin D deficiency.

Objectives: To assess the efficacy and safety of individual targeted vitamin D therapy in postmenopausal women with skeletal diseases (systemic osteoporosis and osteoarthritis).

Methods: Individual targeted therapy of vitamin D deficiency consists of two periods – saturation period and maintenance therapy period, during which patients take it constantly. Duration of saturation therapy is calculated by the formula: Saturation therapy duration (days) = (100 – blood 25(OH)D level (ng/mL)) × body weight (kg)/100, The therapy for saturation includes combined calcium (1,000 mg of calcium and 800 IU of vitamin D) and 3,000 IU of vitamin D per day. Maintenance therapy includes 2 000 IU of vitamin D per day. The study involved 70 postmenopausal women aged 46-87 years. All patients were divided into two groups: main. 50 women who took individual targeted vitamin D therapy (50 subjects, 65.1 ± 8.8 years old, BMI 27.22 ± 4.51 kg/m^2) and control (20 subjects, 64.5 ± 11.1 years old, BMI 26.68 ± 4.95 kg/m^2). The duration of the treatment consists of 3 months starting on the 1st Oct 2013.

Results: In 3 months after the start of the treatment there was a significant ($p < 0.001$) increase in 25(OH)D levels in the treatment group: 35.60 ± 8.21 nmol/L as compared to baseline levels of 25.20 ± 9.76 nmol/l. Remarkably, the treatment was most effective in the oldest subgroup (> 70 yrs.), as well as in subjects with the BMI 25-28,99 kg/m^2. After the treatment, there were no changes in calcium levels.

Conclusions: The suggested individual targeted vitamin D therapy was proven to be effective in postmenopausal women. As the treatment turned out to be effective, relatively quick, and had a reasonable safety profile it may be beneficial for all vitamin D deficient postmenopausal women.

WCO07. THE PREVALENCE OF HYPOVITAMINOSIS D INPORTUGAL – THE PORMETS STUDY

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Objective: The aim of our study was to evaluate the prevalence of hypovitaminosis D and the associations between 25(OH)D and PTH serum levels in a sample of individuals representative of the mainland Portuguese population.

Material and methods: PORMETS is a national cross-sectional study of a representative sample of 4095 non-institutionalized adults, selected from the primary health care centers lists. 500 participants (286 women and 214 men) were randomly selected to be included in the present study. A fasting venous blood sample was collected and freezing samples were stored at –80º C. Vitamin D adequacy was classified according to IOM criteria. A "blunted PTH response" was defined as a PTH within the reference range in the presence of a 25OHD < 12 ng/mL.

Results: Mean (standard deviation) 25(OH)D levels were 14.1 (5.8)ng/mL. According to Vitamin D adequacy categories, deficiency was present in 37.7 %, insufficiency in 47.9%, inadequate in 13.8% and optimal levels in 0.6% of the participants. PTH and 25(OH)D levels were not significantly correlated and a "blunted PTH response" was presented in 89.0% of the participant with vitamin D deficiency.

Conclusions: A high prevalence of hypovitaminosis D was observed in this Portuguese population-based study. These results are supported by previously published evidence from Portugal, although in specific population groups recruited in hospital setting. Attending to low levels and inadequate intake of Vitamin D and possible insufficient solar exposure in the general population it is urgent to develop national policies to increase awareness of the importance of Vitamin D for good health and to develop strategies for the diagnosis and treatment of hypovitaminosis D, namely in at-risk groups. Food fortification may also deserve a broad national debate and lifestyle changes, including weight control and outdoor physical activity must also be encouraged.