Background: In our population the prevalence of hypovitaminosis D is high. A recent cross-sectional observational study conducted in Spain shows that 63% of postmenopausal women who receive osteoporosis (OP) therapy and 76% who do not receive treatment had 25 (OH) D levels below 30 ng/mL. The latest studies show a relationship between hypovitaminosis D and the development of systemic inflammatory and tumor diseases, determined by the presence of receptors in various tissues, including breast.

Objectives: To determine which levels of serum 25 (OH) D, and secondarily calcium, phosphorus, PTH and CTX, present 200 patients diagnosed with breast cancer and taking hormonal treatment, referred to a monographic OP consultation of a tertiary hospital for the assessment of their bone metabolism, and if these values differ from what is expected for the general population.

Methods: Retrospective cross-sectional study of 200 women diagnosed with breast cancer receiving treatment with aromatase inhibitors (AI), performed in a tertiary hospital. Blood levels of vitamin D, calcium, phosphorus, PTH and CTX have been collected, as well as other variables and risk factors.

Results: 200 patients with a mean age of 64.8 years and an ED of 9.5 were collected. The median is 64.5 (Q1 58 and Q3 72). The vitamin D levels presented by the study patients were <10 ng/mL in 13 patients (6.67%), 11-20 ng/mL in 50 (25.64%), 21-30 ng/mL in 68 (34.87%), 31-70 ng/mL in 62 (31.79%), and >70 ng/mL in 2 (1.03%). This implies that in 67.18% of the patients they had values below the optimal range. 92.31% of patients (180) presented PTH values within the normal range and only 7.69% presented values above normal. The serum calcium and phosphorus levels of the patients selected for the study had ranges within normal (99.49%) except 1 case that presented high values (0.51%) for both.

Conclusion: The prevalence of insufficient levels of vitamin D in our study (Breast cancer + AI) is not greater than that estimated for the general population according to various studies.

Our study found that 67.18% of patients (2/3 of the selected population) had values below those considered optimal (<30 ng/mL) and 32% had values <20. Only 76.9% of the patients presented PTH values above the normal range. In 82% of patients, CTX used as a marker of bone resorption had normal values.

References:
[2] Jian Sun et al., Vitamin D receptor expression in peripheral blood mononuclear cells is inversely associated with disease activity and inflammation in lupus patients; Clinical Rheumatology (2019) 38:2509–2518

Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2020-eular.5595
Background: Glucocorticosteroids (GCS) are widely used in the treatment of rheumatoid arthritis (RA) as bridge-therapy. Though, according to last recommendations for the treatment of RA GCS should be considered in short-term and different dose regimens and shouldn’t be tailored as rapidly as clinically feasible. But in some cases, patients received GCS for a long period in low doses (<75 mg/day prednisone equivalent). It is well known, that long-term GCS use is associated with osteoporosis and increased risk of fracture, even at low daily doses. On the other hand, RA itself leads to the changes in the biomechanical properties of bones through the increased production of pro-inflammatory cytokines. Furthermore, immobilization due to pain from inflamed joints and impairment of physical activity are in response for osteoporosis formation. In addition, patients with RA are often co-prescribed a proton pump inhibitor, which have a reported effect on occurrence of osteoporosis. Taking into consideration all mentioned above patients with RA, receiving GCS therapy reveal high risk for osteoporosis and fracture formation and require corresponding treatment.

Objectives: The aim of this study is to evaluate the effect of 12 months treatment with denosumab (bone-modifying agent) in patients with RA, continuing treatment with GCS.

Methods: 50 female patients with RA (mean age 54 ± 6.3 years) were enrolled in this study. Duration of RA was 10.5 ± 3.2 years. All patients received prednisone 15.3 ± 10.25 mg/day with gradually escalating dose of for ≥12 months. As DAMARD therapy patients received methotrexate dose in average 15-20 mg/week (75%), lefunomide 20 mg/day (25%). Bone mineral density (BMD) is measured in all patients by Dual-energy X-ray absorptiometry (DEXA) at baseline and 12 months after treatment with denosumab. All patients received denosumab 60 mg subcutaneously once every 6 months.

Results: The measurement of BMD at baseline revealed the following results: T-score in lumbar spine was -1.95 ± 1.36 and in total hip -1.64 ± 0.94 with high major osteoporotic fracture risk. All patients completed the study. The BMD after 12 months significantly increased both in lumbar spine +4.2 % (p<0.001) and in total hip +2.1 % (p<0.001).

Conclusion: Denosumab should be considered as a drug of choice in RA patients, continuing to receive GCS. Further large investigations are needed to assess the BMD after discontinuation of denosumab and evaluate fracture risk in this population of patients.

References:

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.2793