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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.

The values of CTX (carboxyterminal telopeptide used as a marker of bone resorption) were in the normal range in 81.96% of patients (159), low values in 0.52% (1) and values above the normal range by 17.53% (34).

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 7.69% 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.

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AB0907 BONE METABOLISM ASSESSMENT IN PATIENTS WITH RECENT DIAGNOSIS OF GIANT CELL ARTERITIS

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Background: There are several studies assessing bone mass and osteoporosis (OP) development of patients with giant cell arteritis (GCA) during glucocorticoid treatment, however data at time of diagnosis is scarce.

Objectives: To analyze bone metabolism, bone mineral density (BMD) and trabecular microarchitecture by measuring trabecular bone score (TBS) in patients with recent diagnosis of GCA.

Methods: Retrospective observational study in which we included all patients with GCA and bone metabolism assessment at diagnosis. We recorded: risk factors for OP (previous fractures and anti-OP treatments), bone metabolism (calcium, phosphate, PTH, 25-vitaminD [25-OHD]) and the DXA results (Lunar, DPX) at the time of diagnosis and during the follow-up. The statistic analysis was made with SPSS.

Results: 36 patients (27 W: 9M) with a mean age of 76±9 years were included. The clinical characteristics of the GCA at diagnoses were: headache (81%), constitutional syndrome (58%), allodynia (42%), visual loss (42%), binocular in 2 patients), jaw claudication (39%), polymyalgic syndrome (28%), amaurosis fugax (25%) and lingular necrosis (n=1, 3%). Additional diagnosis tests included: temporal biopsy (86%, being pathologic in 55%), temporal ultrasound (97%, pathologic 34%), extra-cranial arteries ultrasound (81%, pathologic 7%) and PET/CT (19%, pathologic 86%). Up to 61% received three methylprednisolone bolus (mean dose 1700mg). 7 patients (19%) had previous OP and 3 had already suffered a

fragility fracture (Colles, vertebral and femur). Only 4 patients were receiving anti-OP treatment (2 oral bisphosphonate, 2 zoledronate).

At time of diagnosis of GCA, the mean of 25OHD was 17±13ng/mL (88%, <30). BMD showed low bone mass in 80% of patients (47% with OP, 33% osteopenia). The mean TBS was 1.026±0.098 and up to 38% showed poor bone microarchitecture [values <1.23]. No significant differences were observed between patients with or without TBS <1.23. Up to 94% of patients received anti-OP treatment (26 zoledronate, 6 oral bisphosphonate, 1 denosumab, 1 teriparatide). 3 patients had incidental fractures during the follow-up, however no relation was found with BMD or TBS.

Conclusion: Low bone mass and vitamin D insufficiency are frequent in patients with recent diagnoses of GCA and up to 38% have poor bone microarchitecture at baseline. Thus, it's important to perform a bone mass assessment in all patients with recent diagnose of ACG and initiate therapeutic or preventive anti-OP treatment if required.

Disclosure of Interests: None declared

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AB0908 ASSESSMENT OF THE IMPACT OF THE LEAN MASS WITH BODY COMPOSITION BY DUAL-ENERGY X-RAY ABSORPTIOMETRY ON THE BONE MINERAL DENSITY

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Background: Lean mass, mainly composed of muscle, has been correlated to bone mineral density (BMD) [4]. Studies reported that lean mass has an important impact on BMD not only in young women but also in postmenopausal women [1]. High lean mass is more favorable for the BMD than low lean mass. Some studies suggested that genetic factors responsible for both lean mass and BMD are shared [3]. Low muscle mass and low BMD could impair the quality of the patient's life [2, 5].

Objectives: The aim of this study is to assess the impact of the lean mass with body composition by dual-energy X-ray absorptiometry on the bone mineral density.

Methods: 107 women underwent body composition analysis by dual-energy X-ray absorptiometry (DXA). Lean mass in kg and BMD in kg/cm² were analyzed. Normal BMD was defined as T-score > -1.0 standard deviation (SD). Osteopenia was defined as T-score between -1.0 SDs and -2.5 SDs and osteoporosis was defined as T-score ≤ -2.5 SDs.

Results: The mean age of the women was 57 years (yrs.) ± 11 yrs. (range 41 yrs. – 80 yrs.). Subjects had mean weight of 75 kg ± 12 kg (range 50 kg – 110 kg) and mean height of 156 cm ± 9 cm (range 151 cm – 172 cm). 73/107 women (68.2%) were with normal BMD, 24/107 women (22.4%) were with osteopenia and 10/107 women (9.4%) were with osteoporosis. Lean mass differed significantly between the groups (p = 0.000). Women with normal BMD had the highest mean lean mass (58.47 kg) and the mean lean mass of the women with osteopenia and osteoporosis decreased as follow: 47.56 kg for women with osteopenia and 36.22 kg for women with osteoporosis.

Conclusion: Women with osteoporosis have the lowest lean mass compared to the women with osteopenia and osteoporosis.

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AB0909 TREATMENT WITH DENOSUMAB IN GLUCOCORTICOSTEROID-INDUCED OSTEOPOROSIS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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