presented vitamin levels below the actual limits of 30ng/ml. These limits, used by most of the laboratories, tend to overestimate the vitamin D deficiency.

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AB0904

PERSISTENCE AND REASONS FOR DISCONTINUATION OF DENOSUMAB IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Denosumab, a fully human monoclonal antibody to receptor activator of nuclear factor kappa B ligand, which inhibits osteoclast differentiation, activation and survival, not only increases bone mineral density but also inhibits the progression of bone erosion in patients with rheumatoid arthritis (RA)¹⁻³. Therefore, denosumab have been preferably prescribed for patients with RA recently. The persistence with denosumab, which is administered subcutaneously once every 6 months, was reported higher than with oral bisphosphonates⁴, and in the prospective cohort studies, the persistence rate for one year was reported to be 82-95%⁵⁻⁶. However, there have been no report about the persistence in patients with RA treated with denosumab, moreover the reasons for discontinuation of denosumab.

Objectives: The aims of this single center retrospective cohort study were 1) to assess the persistence with denosumab in a routine clinical setting and 2) to identify the reasons of discontinuation in patients with RA. And we also reviewed the clinical outcomes of osteonecrosis of the jaw in patients with RA during denosumab treatment.

Methods: The present study is based on databases from our hospital, which include age, gender, date of injection of denosumab, as well as information on patients' characteristics. Patients were included in this study when denosumab were newly started at our department during the period from June 1, 2013 and September 30, 2017. In this study, persistence was defined as patients with an interval between injections of no longer than 6 months plus 8 weeks. Patients were followed until censoring (death, transferring to another hospital) or the end of the study (August 3, 2018).

We investigated reasons for the discontinuation of denosumab. Major reasons for the discontinuation of denosumab were classified as adverse event, anxiety over adverse events, patient's transfer or request, doctor's careless lack of refilling an injection, and other reason.

We identified patients who had been diagnosed as osteonecrosis of the jaw, and demographic, pharmacological, and clinical data were collected from medical records.

Results: One hundred and seventy-five patients were identified. Kaplan-Meier analysis showed a slow decline of persistence after initiating denosumab therapy, dropping to 80.4 and 61.9 % after 1 and 2 years of follow-up. When analyzing the reason of discontinuation as adverse events, the persistence rate of denosumab was at 89.4, and 79.4% at 1, and 2 years of follow-up, respectively.

During 2-year period, 72 patients discontinued denosumab. A total of 27 adverse events occurred, of which five events were osteonecrosis of the jaw. The other

reasons for adverse event included death in four, fracture in three, and so on. Six patients discontinued due to anxiety over dental adverse event. Thirteen patients were in doctor's careless lack of refilling an injection

All five patients who were diagnosed as osteonecrosis of the jaw had received the treatment with prednisolone, and four were treated with biologic drugs. All patients stopped denosumab and switched to other drugs including teriparatide. All patients underwent surgical curettages of necrotic bone and cured.

Conclusion: Persistence of denosumab in patients with RA is comparable to that in postmenopausal women with osteoporosis. Dental screening and care should be important to continue denosumab treatment.

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AB0905

THE PREVALENCE AND RISK FACTORS OF OSTEOPOROSIS IN PATIENTS WITH INFLAMMATORY BOWEL DISEASES: A TUNISIAN STUDY

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Background: Osteoporosis is as known a chronic complication of inflammatory bowel diseases (IBD). Its etiopathogenesis is often multifactorial.

Objectives: The aim of our study was to describe the prevalence of reduced bone mineral density and to identify risk factors of osteoporosis in patients with inflammatory bowel diseases.

Methods: This is a retrospective study over three years, collecting patients suffering from IBD and having benefited from a bone densitometry. We have specified for each patient the clinical data and the IBD characteristics. Bone mineral density (BMD, g/cm) was assessed by dual X-ray absorptiometry. Osteoporosis was diagnosed when BMD was 2.5 standard deviations below the mean peak value in young adults (T score, 22.5 SD). Patients with other pathology that may change the bone metabolism were excluded.

Results: sixty-one patients were included with an average age of 38 ± 13 years [16-73]. The sex ratio M / F was 1.25. 69% of patients had ulcerative colitis. The bone density profile was normal in 49.2% of the cases. Osteoporosis and osteopenia were noted in 13.1% and 37.7% of patients, respectively. Osteoporosis was associated with advanced age (50.5 ± 16.5 years vs 36.26 ± 12.93 years; p = 0.007) and longer course disease (6.75 ± 7, 4 years vs 2.5 ± 4 years; p = 0.015). The cumulative dose of prednisone equivalent used in patients with osteoporosis was significantly higher than the other patients (2775 ± 3338 mg vs 706 ± 1449 mg; p = 0.003). Osteopenia was more frequently associated with crohn's disease (58% vs 28.6% p = 0.0029). There was no significant difference between the group with osteoporosis or osteopenia and the group with normal bone densitometry for sex and body mass index.

Conclusion: Osteoporosis during IBD is associated with advanced age, longer duration of illness and administration of high doses of corticosteroids. The high proportion of osteoporosis and osteopenia in our study underlines the importance of systematic BMD measurement in all IBD patients as a base for initiating the appropriate treatment.

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AB0906

PREVALENCE OF HYPOVITAMINOSIS D IN DIAGNOSTIC PATIENTS OF BREAST NEOPLASIA IS GREATER THAN EXPECTED FOR THE GENERAL POPULATION? SERIES OF 200 DIAGNOSTIC PATIENTS OF BREAST NEOPLASIA IN A TERTIARY HOSPITAL INITIATING TREATMENT WITH AROMATASE INHIBITORS

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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 <10ng/mL in 13 patients (6.67%), 11-20ng/mL in 50 (25.64%), 21-30ng/mL in 68 (34.87%), 31-70ng/mL in 62 (31.79%), and > 70ng/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.

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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 75kg ± 12kg (range 50kg – 110kg) and mean height of 156cm ± 9cm (range 151cm – 172cm). 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 (58.47kg) and the mean lean mass of the women with osteopenia and osteoporosis decreased as follow: 47.56kg for women with osteopenia and 36.22kg 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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