Lumbar OP was associated with the female sex (OR=3.6). The FN T-score (and, to a lesser extent, lumbar T-score), showed a correlation with age (r=−0.515, p<0.01). No differences were found in the mean values of BMD, T-score, and Z-score of FN and LS between positive or negative patients for FR or ACPA (t-student) or neither between their possible combinations (one-way ANOVA). Association between positivity of RF, ACPA or their combinations and T-score <−1 (osteoporosis) or T-score <−2.5 (OP) in LS or FN were not found. A negative weak correlation was found between the RF and lumbar BMD values (r=−0.121, p=0.04) and a positive weak correlation between ACPA and FN (0.136 with BMD, 0.131 with T-score and 0.138 with Z-score; p<0.05 for all).

Conclusions: OP was very common in our RA population, especially in women and elderly. Any association was demonstrated between OP and the presence/titer of autoantibodies (RF and ACPA) and low dose of corticosteroids treatment.

Disclosure of Interest: None declared


**AB1006**

**BONE STATUS OF PATIENTS TREATED WITH ANTI-AROMATASE: RESULTS AT ONE YEAR**

M. Djennane, C. Sedikaufi, F. Bouzar. Medicine, University of Medicine Moulay Mammert, Tizi Ouzou, Algeria

**Background:** First cancer in Algeria, first cause of cancer mortality in women. One in 10 women will develop breast cancer in her lifetime. Its incidence is increasing with 55.8/100000 inhabitants. The majority of these cancers are hormon-dependent. The bone loss induced by anti-aromatase (AA) leads to an increase in bone resorption with bone loss 2 to 4 times greater than the physiologically loss. Randomised controlled trials (RCTs) including women under AA for 5 years have suggested an increased risk of fracture of 18% to 20% ie 1 in 5 women will experience this risk.

**Objectives:** The aim of our work is to describe the initial bone status and after one year of follow-up in patients starting an anti-aromatase.

**Methods:** Three hundred and twenty seven (327) patients were recruited from the oncology department of Tizi Ouzou University Hospital, 292 patients were analysed in the initial phase of the study and only 250 patients were evaluated at one year. Of these patients, 157 non-osteoporosis patients received calcium and bisphosphonates with calcium and vitamin D (n=93) had stable bone mineral density (BMD) at the three parts in RA and HI from 2010 to 2017. Factors affecting % change in BMD were analysed in the initial phase of the study and only 250 patients were evaluated at one year. Of these patients, 157 non-osteoporosis patients received calcium and bisphosphonates. Inclusion criteria: Women with oestrogen receptor breast cancer treatment with Anti-aromatase indicated: a) Immediately after conventional breast treatment b) Tamoxifen relay- Criteria for non-inclusion: Bone metastases

**Methods:** Clinical evaluation: screenier risk factors for osteoporosis and fractures. Biological Evaluation: Calcium, Phosphoremia, 25 Hydroxy Vitamin D. Radiological assessment: chest radiograph (profile) or IVA (vertebral fracture assessment) looking for vertebral fractures. Lumbar and femoral bone densitometry (HOLOGIC QDR)

**Results:** The mean age of the patients is 56.8±7.3 years, mean body mass index is 27.4±2.8 kg/m2. 48% of patients received chemotherapy. The anti-aromatases (AA) (n=157) annual bone loss is 1.5% at the lumbar spine and 1.24% at the hip. 15% of patients had 25OH-D3 levels lower than 25 ng/ml. Pearson’s correlation coefficient between both variables was −0.159 (p<0.01). At last, correlation calculated with deficiency levels of 250OH-D3 (<30 ng/ml) was −0.18(p<0.01), and with levels inferior than 10 ng/ml was −0.12(p<0.01).

**Conclusion:** Linear correlation between levels of 25OH-D3 and PTH could not be established in our study, not even using levels classified as vitamin D deficiency. 25OH-D3 levels tended to increase from winter to summer whereas PTH levels decreased inversely during these seasons, without any linear correlation.

**Disclosure of Interest:** None declared


**AB1007**

**SEASONAL VARIATIONS OF 25-HYDROXYVITAMIN D3 LEVELS AND ITS RELATION TO PARATHYROID HORMONE LEVELS**

M.A. Teran Tinedo, P. Cristina. HOSPITAL RAMON Y CAJAL, MADRID, Spain

**Objectives:** To analyse the relationship between 25-hydroxyvitamin-D3 and parathyroid hormone levels and to determine its variation between the different seasons of the year.

**Methods:** An observational descriptive study was carried out, collecting and analysing 25-hydroxyvitamin-D3 (25OH-D3) and parathyroid hormone (PTH) serum levels of patients from January to December of 2017. The frequencies distribution analysis of both variables was compared and Pearson’s correlation coefficient (PCC) was used to analyse linear relationship between them. The results were classified by date in four seasons: winter, spring, summer, and autumn, assessing the mean seasonal oscillations of each variable and calculating correlation in each case. Different levels of 25OH-D3 were evaluated in order to identify differences in the grade of correlation.

**Results:** Serum samples from 6265 patients were recollected. 59% of the patients had 25OH-D3 levels lower than 25 ng/ml. Pearson’s correlation coefficient between both variables was −0.159 (p<0.01). The mean values of 25OH-D3 were calculated for each seasonal period, establishing a mean level of 23 ng/ml for winter, 25 ng/ml for spring, 31 ng/ml for summer and 29 ng/ml for autumn. Regarding PTH levels, the mean values for each season were 108 pg/ml, 101 pg/ml, 86 pg/ml and 84 pg/ml from winter to autumn respectively. PTH/Vitamin D correlation was also assessed for each period: Pearson’s correlation coefficient during winter was −0.06(p<0.01), for spring −0.2492(p<0.01), for summer −0.21 (p<0.01) and for autumn −0.19(p<0.01). At last, correlation calculated with deficiency levels of 25OH-D3(<30 ng/ml) was −0.18(p<0.01), and with levels inferior than 10 ng/ml was −0.12(p<0.01).

**Conclusion:** There was a high correlation between serum levels of 25OH-D3 and PTH, which could be considered a significant factor increase in the risk of developing secondary osteoporosis.

**Disclosure of Interest:** None declared


**AB1008**

**COMPARISON OF BONE MINERAL DENSITY BETWEEN RHEUMATOID ARTHRITIS PATIENTS AND HEALTHY INDIVIDUALS OVER SEVEN YEARS FROM THE TOMORROW STUDY**

M. Tada1,2, K. Inui3, Y. Sugikawa2, T. Okano2, Y. Yamada2, K. Mandai3, K. Mamoto4, T. Koke5, H. Nakamura1, Ichiro Tada2, K. Inui3, Y. Sugikawa2, T. Okano2, Y. Yamada2, K. Mamoto3, T. Koke4, H. Nakamura5. Orthopaedic Surgery, Osaka City General Hospital; 2Orthopaedic Surgery; 3Center of Senile Degenerative Disorders, Osaka City University Graduate School of Medicine, Osaka, Japan

**Objectives:** To observe BMD changes over 7 years and identify factors that affect BMD changes in patients with RA.

**Methods:** We analysed data from the TOMORROW study (UMIN000003876), a prospective cohort for patients with RA and age- and sex-matched HI. BMD was measured at three parts (whole body, lower limb, lumbar spine) using dual-energy X-ray absorptiometry (DXA). We compared the percentage change in BMD (%BMD) at the three parts in RA and HI from 2010 to 2017. Factors affecting %BMD in RA were analysed.