

Conclusions: We observed 25-OH Vitamin D levels and bone metabolism biomarkers correction during the first two years after LT. Medical intervention prior to LT as well as antiresorptive treatment seem to play a decisive role in bone mineral density improvement.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5855

AB0830 BONE MINERAL DENSITY IN MULTIPLE MYELOMA: 39 CASES

Z. Saoussen, H. Mouanaa, A. Arfa, M. Jguirim, B. Ismaiel, M. Touzi, N. Bergaoui. *Rheumatology department of Monastir University Hospital, Monastir, Tunisia*

Background: In multiple myeloma (MM), osteolysis affects more than 80% of patients. This leads to bone pain, pathological fractures and hypercalcemia. These lesions result from an alteration of bone remodeling by increased osteoclast activity and decreased osteoblasts one. The real impact of this osteolysis on bone mineral density remains largely understudied. To the best of our knowledge the impact of MM on bone mineralization was studied worldwide only for 6 times where our study is the second biggest one.

Objectives: The aim of the study was to evaluate bone mineralization in the patients with multiple myeloma according to the criteria of diagnostic (IMWG: International Myeloma Working Group 2014, during a period of 5 years (2011–2016).

Methods: This is a transverse and descriptive study. The bone mineral density was measured by dual-energy X-ray absorptiometry with Lunar Prodigy in spine (L2-L4) and femoral neck.

Results: Thirty-nine patients were collected. The average age was 63±10 years [50 years, 86 years] upon them 26 men and 13 women. The sex-ratio is equal to 2. 11 patients were smoking (35%), 9 of them had diabetes and only 2 were alcoholic (6%). The Body Mass Index (BMI) average was 29 kg/m². Only one case was underweight (3%). The reason of seeking health care was poor general state in 14 cases (49%), bone pain in 22 cases (78%), 5 cases among them of generalized bone pain (23%) and 12 cases of rachialgia (4.5%) and only 4 cases of pathological fracture (15%). The distribution of patients according to the Durie and Salmon Classification was as follows: 25 cases (84%) in stage III, 3 cases (10%) in stage II, 2 cases (7%) in stage I, and 27 cases (90%) Type A and 3 cases (10%) type B. The average of the monoclonal spike was 34g/L [2.5g/L, 88g/L] The heavy chains antibodies were IgG type in 19 cases (64%), IgA type in 7 cases (24%), IgM type in only one case (4%) and IgD type in only one case (4%). The light chains were Kappa type in 19 cases (64%) and Lambda type in 11 cases (37%). The ISS score was equal to 1 in 6 cases (23%), equal to 2 in 13 cases (34%) and equal to 3 in 8 cases (30%). The average bone mass in the spine was 0.998±0.254g/cm² [0.632g/cm²; 1.892g/cm²] and in the femoral neck 0.869±0.254g/cm² [0.632g/cm²; 1.892g/cm²]. The average of the Z-score in the spine was -0.762±1.895 [-4.4; 5.7] and in the femur -0.438±0.962 [-2.8; 1.4]. The mean T-score in the spine was -1.626±2.025 [-4.9; 5.6] and in the level of the femur -1.567±1.178 [-3.7; 1]. There was a decrease of bone mineral density noticed in 15 patients (39%) in at least one place (T-score more than 2.5 SD below normal of young healthy persons. Seventeen patients (58%) were candidates for *autogenous bone graft*. They had *induction chemotherapy* (Dexamethasone-thalidomide). Others was treated by MPT protocol (Prednisone-Thalidomide-Dexamethasone) in 8 cases (28%), CDT protocol (Cyclophosphamide-Thalidomide-Dexamethasone) in one case (4%) and MP protocol (Melphalan -Prednisone) for the remaining (10%).

Conclusions: BMD analysis suggests that MM is associated with systemic bone disease with progressive loss of bone mass at both the spinal and lumbar levels. In order to better study the impact of multiple myeloma and chemotherapy on bone densitometry, a densitometry control in about 5 years is favorable.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.6754

AB0831 FRAX SCORE: AN INTERESTING WAY FOR GASTROENTEROLOGISTS TO ASSESS FRACTURE RISK IN PATIENTS WITH LONG-TERM PROTON PUMP INHIBITORS

H. Romdhane¹, M. Cheikh¹, K. Abdelghani², R. Ennaifer¹, N. Bel Hadj¹, A. Laatar². ¹*Gastroenterology and hepatology*; ²*Rheumatology, Mongi Slim Hospital, TUNIS, Tunisia*

Background: Proton pump inhibitors (PPI) are effective in many indications. Nevertheless, some serious adverse effects associated with prolonged exposure, including an increase in fracture risk, have occurred. This would be explained by two main mechanisms: decreased absorption of calcium secondary to decreased gastric acidity and inhibition of proton pump of osteoclasts reducing bone resorption.

The Frax score assess the 10-year probability of osteoporotic fracture or hip fracture in subjects older than 40 years.

Objectives: The aim of our study was to evaluate the usefulness in our practice of this score in patients under long-term PPI.

Methods: We included patients who had been taking PPI for at least one year. In all patients, we specified the indication and duration of PPI. We then looked for the main personal or family risk factors for osteoporosis. Bone mineral density (BMD) was performed in all patients and frax score was calculated for those older than 40 years.

Results: Fifty-two patients were included in our study. The mean age was 49.5±14.55 years [21 - 84 years] with a sex ratio of 0.48. Long-term PPI were indicated in 75% (n=39) of patients for gastroesophageal reflux, in 11.5% (n=6) for chronic gastritis with failure of Helicobacter Pylori eradication, in 3.8% (n=2) for persistent epigastralgia, in 5.7% (n=3) for functional dyspepsia and finally in 3.8% (n=2) of patients in prophylaxis of gastroduodenal lesions in chronic use of NSAIDs. The mean duration of intake was 45.4 months [12–240 months]. The main osteoporotic risk factors were tobacco in 25%, alcohol in 12%, physical inactivity in 42% and dysthyroidism in 6% of cases. In our study, 20 women among the 35 included (57% of cases) were already menopausal. An osteoporotic fracture in a first-degree relative was noted in 23% of cases, including one patient reporting two fractures. A history of fragility fracture was observed in 11 patients (21%) including 3 men and 8 women. The mean daily calcium intake was 567.2±327.6 mg /d [230 -2315 mg /d]. Calcium intake was insufficient in 94% of patients. BMD was normal in 15 patients (29% of cases) while 71% (n=37) had low BMD. In our population, age (p=0.02), calcium intake (p=0.029) and menopause (p<0.0001) were significantly related to low BMD. The duration of PPI intake was negatively correlated with BMD. Patients taking PPI for at least 30 months were 6.5 times more likely to have low BMD (95% CI [1.5–27.4]). The mean FRAX score for major osteoporotic fractures in 37 patients older than 40 years was 1.08±0.84% [0.3–3.3%]. For hip fractures, the mean score was 0.26±0.29% [0–1.4%]. There was a significant correlation between mean Frax score and BMD (p<0.0001). None patient had a patent or subclinical fracture during the follow-up period.

Conclusions: Our study shows an increased risk of fracture in patients under long-term PPI, especially if they have other osteoporotic risk factors. In this context, Frax score is a simple and non-invasive tool for assessing fracture risk in these patients and to adapt screening strategy for sub-clinical fractures.

References:

[1] none.

Acknowledgements: none.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5399

AB0832 EFFECT OF LONG-TERM PROTON PUMP INHIBITORS ON BONE MINERAL DENSITY

H. Romdhane, M. Cheikh, H. Ben Nejma, R. Ennaifer, N. Bel Hadj. *Gastroenterology and hepatology, Mongi Slim Hospital, TUNIS, Tunisia*

Background: Proton pump inhibitors (PPI) are widespread nowadays. Recent concerns have emerged about possible bone complications of long-term use of PPIs, such as low bone mineral density (BMD) and an increased risk of fractures.

Objectives: The aim of our study was to evaluate the effect of long-term use of PPIs on bone by measuring the BMD in order to estimate the frequency of osteopenia and osteoporosis, and to determine the risk factors associated to this complication.

Methods: It was a prospective study including consecutive patients who were taking proton pump inhibitors for at least one year. In all patients we realized a bone densitometry in order to evaluate the bone strength and we calculated the FRAX score to estimate the risk of osteoporotic fracture at ten years.

Results: We included 52 patients. The mean age was 49.5 years old. The male-female ratio M/F was 0.48. At least three risk factors were found in more than 50% of the population. The calculated daily calcium intake was insufficient in 94% of the patients. The mean duration of PPIs intake was 45 months. The most frequent indication was gastro esophageal reflux disease (75%). The PPI prescription was appropriate in 94% of the cases. The prevalence of osteopenia and osteoporosis was respectively 52% and 19%. The predictive factors of low BMD were an age ≥50 years old (p=0,03), the menopause (p<0,0001), a calcium intake ≤550 mg/day (p<0,038), and a PPI use duration ≥30 months (p<0,006). The multivariate study could not be undertaken because of co linearity of the factors.

Conclusions: The long term PPI use is associated to the risk of bone complications, especially among patients at risk for osteoporosis. It seems reasonable to be more vigilant in prescribing PPIs and use lowest effective dose for patients with appropriate indications, and to screen these complications if necessary.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5281

AB0833 BONE MINERAL DENSITY IN TUNISIAN PATIENTS WITH AUTOIMMUNE HEPATITIS

M. Cheikh, H. Romdhane, H. Bennejma, R. Ennaifer, N. Bel Hadj. *Gastroenterology and hepatology, Mongi Slim Hospital, TUNIS, Tunisia*

Background: Bone loss in autoimmune hepatitis (AIH) is scanty and conflicting. The pathogenic mechanisms are not completely elucidated.

Objectives: This study aimed to assess the prevalence and risk factors for bone loss in patients with AIH.

Methods: Bone mineral density (BMD) using X-ray absorptiometry at both lumbar spine and femoral neck sites was measured in patients with AIH. Were excluded patients with diseases disturbing the bone density. Osteopenia was considered if T-score <-1.5 DS and osteoporosis if T-score <-2.5 DS.