Background: Osteoporotic fractures have a high health and economic impact. The best strategy to minimize the incidence of fractures is, certainly, the prevention of these that includes pharmacological treatments. However, long-term discontinuation treatment and sub-optimal compliance of the treatment are common.
Objectives: The aim of the study is to quantify the therapeutic compliance and permanence of the osteoporosis pharmacological treatments for patients who were discharged from hospitals in Catalonia with hip fracture during 2017.
Methods: From the Hospital Discharge Database of the Catalan Health Service, all patients who had been discharged during 2017 were selected with the main diagnosis of femur fracture, according to the coding CIM-9. The consumption of drugs to assess compliance and permanence was obtained from the Catalan Health Service pharmacy Database. The study period was 18 months from the date of hospital discharge. Patients who died, moved to other areas or switched their treatment were excluded from the study. Good compliance was considered when sufficient drug was obtained to cover 80% of the time since treatment was prescribed until the end of the study period. In the case of denosumab, good post-fracture compliance was considered when the treatment time was remained at least 12 months. Permanence was considered positive if a drug had been obtained during the last three months of the study period. To compare the differences in compliance and permanence between the patients treated with different drugs, the chi-square statistic was used, considering statistically significant differences if p<0.05.
Results: 8,354 patients were discharged with the main diagnosis of hip fracture. Of these, 1,712 patients (20.49%) were treated after been discharged. After applying the exclusion criteria, the final sample was made up of 1,327 patients. 81,54% were women, and the median age was 84,79 years.
The most commonly used treatments were bisphosphonates (69%), denosumab (23%) and teriparatide (7%)
The results of good compliance and permanence of treatment were those described in the table.

	n	Compliance	Permanence
Alendronate	863	63,27%	64,77%
Alendronate+colecalciferol	27	74,07%	81,48%
Ibandronate	3	66,67%	100%
Risedronate	23	39,13%	60,87%
Raloxifene	1	100%	100%
Bazedoxifene	1	0%	0%
Teriparatide	99	76,77% (*)	73,74%
Denosumab	310	76,77% (*)	74,52% (*)

(*) p<0.05 for total bisphosphonates and for alendronate

Conclusion: The results obtained suggest that a small number of patients were treated after a hip fracture (20.49%) in addition the instituted treatments are followed in a suboptimal way. It is necessary to investigate which factors may lead to the detection of potential non-compliant patients. It seems appropriate to consider drugs that facilitate compliance and permanence of treatment.
Our results suggest that denosumab and teriparatide improve compliance compared with oral bisphosphonates.
The introduction of specific plans and cross-sectional health structures between levels of care should lead to improve detection, treatment and compliance in patients with osteoporosis.
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SAT0477 A TWO-YEAR LONGITUDINAL STUDY COMPLETION, LONGITUNEAL STUDY, THE DIFFERENCE IN BONE LOSS IN PATIENTS WITH EROSIVE AND NON-EROSIVE HAND OSTEOARTHRITIS

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Background: Hand osteoarthritis (OA) and its more severe subset erosive hand OA are common causes of pain and morbidity. Some metabolic factors were suggested to be implicated in erosive disease. Few studies investigated differences in systemic bone loss between erosive and non-erosive hand OA.
Objectives: To compare the change of bone mineral density (BMD) between patients with erosive and non-erosive hand OA in a two-year longitudinal study.
Methods: Consecutive patients with symptomatic HOA fulfilling the American College of Rheumatology (ACR) criteria were included in this study. Erosive hand OA was defined by at least one erosive interphalangeal joint. All patients underwent clinical assessments of joint swelling and radiographs of both hands. DEXA examination of lumbar spine, total femur and femur neck was performed at the baseline and after two years.
Results: Altogether, 141patients (15 male) with symptomatic nodal HOA were included in this study and followed between April 2012 and January 2019. Out of these patients, 80 had erosive disease after two years. The disease duration (p<0.01) was significantly higher in patients with erosive compared with non-erosive disease at baseline.
Osteoporosis (T-score <-2.5 SD) was diagnosed in 12.5% (9/72) of patients with erosive hand OA and in 8.06% (5/57) of patients with non-erosive hand OA at baseline. BMD was significantly lowered in patients with erosive compared with non-erosive disease at baseline (lumbar spine: 1.05g/cm2 vs. 1.13 g/cm2, p<0.05, total femur: 0.90 g/cm2 vs. 0.97 g/cm2, p<0.01 and femur neck: 0.86 g/cm2 vs. 0.91, p<0.05). T-scores of lumbar spine (-0.96 vs. -0.41 SD, p<0.05), total femur (-0.69 vs. -0.33 SD, p<0.05) and femur neck (-1.14 vs. -0.88 SD, p<0.05) were also significantly lowered in patients with erosive compared with non-erosive disease.
Two years, the BMD remained also significantly lowered in patients with erosive compared with non-erosive disease (lumbar spine: 1.05g/cm2 vs. 1.14 g/cm2, p<0.05, total femur: 0.92 g/cm2 vs. 0.97 g/cm2, p<0.05 and femur neck: 0.86 g/cm2 vs. 0.91, p<0.05), which was in agreement with the finding for T-scores of lumbar spine (-1.05 vs. -0.39 SD, p<0.05), total femur (-0.74 vs. -0.34 SD, p<0.01) and femur neck (-1.07 vs. -0.72 SD, p<0.01).
Conclusion: These results suggest that patients with erosive hand OA are at higher risk for the development of general bone loss. Over two years patients with erosive disease had significant lower bone mineral density at all measured sites.
References:
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SAT0478 OSTEOPOROSIS TREATMENT IN PORTUGUESE PATIENTS WITH PSORIATIC ARTHRITIS – WHAT IS THE VALUE OF THE FRACTURE RISK ASSESSMENT TOOL (FRAX)?

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Background: Few studies have evaluated the prevalence and treatment of osteoporosis (OP) in patients with psoriatic arthritis (PsA), and many of these patients are not screened using dual-energy X-ray absorptiometry (DXA). FRAX makes it possible to stratify the risk and define which patients may benefit from anti-osteoporotic treatment, but its usefulness in this population is not well established.
Objectives: The aim of this study was to determine whether the application of FRAX changes the indication for anti-osteoporotic treatment in PsA patients, according to the Portuguese guidelines.
Methods: In this cross-sectional study, we evaluated PsA patients from a tertiary hospital, registered in a national database (Reuma.pt), aged between 40 and 90 years and with a last consultation in 2019. FRAX was applied in all of them, regardless of being under anti-osteoporotic treatment and, when DXA was available, the femoral neck bone mineral density was used. Patients were stratified according to the risk of fracture, and those at high risk were considered candidates for anti-osteoporotic treatment, according to national guidelines [FRAX ≥11% for major osteoporotic fracture (MOF) or ≥ 3% for hip fracture (HF) without DXA; FRAX ≥9% for MOF or ≥ 2.5% for HF, with DXA].
Results: We included 100 patients, 52 females, with a mean age of 54,4 ±8,9 years and a median disease duration of 10 (6-17) years. Only 43 had already performed DXA and 6 had OP according to World Health Organization criteria. Seven patients were identified as having a high risk of fracture; applying femoral neck bone mineral density, 2 more patients with indication for treatment were recognized, totalizing 9 patients. There was a low agreement between the indication for treatment based only on DXA and FRAX (Cohen's k 0.066). There was a moderate and significant correlation between percentage of risk of MOF by FRAX with and without DXA (Spearman's ρ 0.804, p <0.001); for the risk of HF by FRAX with and without DEXA the correlation was weaker but still significant (Spearman's ρ 0.439, p = 0.004). There was no association between the indication for treatment by FRAX and the performance of DXA (chi-square test,