Background: Osteoporosis is a public health issue. Lack of therapeutic compliance is often a problem in the treatment of osteoporosis, with potentially dramatic consequences. No studies have evaluated the observance of zoledronic acid infusion after 3 years, the time of the therapeutic reassessment.

Objectives: The main objective of assessing the level of compliance was to evaluate the level of zoledronic acid infusion adherence at 1, 2 and 3 year periods, in a cohort of osteoporotic patients on discharge from Bégin hospital, following treatment for fracture caused by low-energy trauma. The first infusion was prescribed by rheumatologists, with the following infusions to be prescribed by general practitioners.

Methods: We performed a retrospective observational study initially conducted by written and telephone questionnaires on a population of patients hospitalized in the rheumatology department of HIA Bégin for an osteoporotic fracture. Data was collected between July 2015 and December 2018. A first letter, containing a stamped addressed envelope to the Bégin hospital for ease of reply, was sent to the patients selected for the study. The protocol had to be modified following a very low response rate, unaided by bad quality addresses. We then tried to contact the patients by phone 3 times and, if unable to reach them, we called their general practitioners on 3 occasions.

Results: 94 patients were initially selected. Every year, we retained within the study patients who had followed their annual zoledronic acid infusion protocol. Taking into account all 94 patients, adherence level for the first infusion was 41.4%, down to 29.7% for the second infusion and down to 12.8% for the third infusion.

For those who had the first infusion performed, adherence level for the second infusion was 71.8%, down to 30.8% for the third infusion.

Conclusion: The observance and follow-up of zoledronic acid infusion in France by general practitioners is not adequate. Follow-up measures on an annual basis by the rheumatologist could significantly improve adherence.

References:

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week (p=0.003) and day 15 (p=0.01) after the intervention. However, there was no significant difference between the two groups at day 30, but only a trend (p=0.08).

Regarding analgesic treatments, 30% of patients in the sacroplasty group could reduce their analgesics between the time they entered and left hospital. None of the patients in the control group were able to reduce their analgesic treatment over this period. In addition, half of the patients in the sacroplasty group were successful in returning home compared to only one-third of the patients in the conservative treatment group.

**Conclusion:** In this study, sacroplasty was associated with an early and significant pain relief compared to conservative management in patients with osteoporotic sacral fracture. The procedure is well tolerated and may prevent loss of autonomy in these patients.

**Disclosure of Interests:** None declared

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**BIMODAL DISTRIBUTION OF VERTEBRAL FRACTURE FRAGILITY FRACTURES (VFF) IN A FRACTURE LIASON SERVICE (FLS). RESULTS OF A COMPARATIVE ANALYSIS OF PATIENTS WITH VFF VERSUS THOSE WITH OTHER FRACTURE FRAGILITIES (OFF).**

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**Background:** Fracture fragility fractures (FF) represent a health problem and among them, the VFF. They have worse vital prognosis, are at greater risk of new FF, had higher comorbidity, with clinical manifestations in only 30%-40% of cases. One in 6 women and one in 12 adult males will have a VFF.

**Objectives:** To analyze the clinical characteristics of FF patients attended in the FLS at Virgen Macarena University Hospital. Compare the sociodemographic and clinical characteristics of VFF patients with those of OFF.

**Methods:** Design: Prospective cohort. Patients attended in the FLS from May 2018 to November 2019 in a protocolized manner (Oncelclinica®). Inclusion criteria: a clinical FF in the previous two years. Descriptive statistics: percentages and means with 25th and 75th percentile. Inferential statistic by parametric and nonparametric tests. The project was approved by the Ethics Committee and patients signed consent to participate.

**Results:** Data from 414 patients with a first FF are analyzed. 101 (25%) with VFF and 313 (75%) with OFF [188 (45%) hip, 66 (16%) distal radius, 32 (8%) humerus and 27 (6%) miscellaneous (pelvis, ribs, tibia)]. All VFFs analyzed had clinical symptoms and the number of fractured vertebrae was 2 (1-3). In 28 (37%) were FF of dorsal vertebrae, at 23 (3%) lumbar and 23 (30%) dorsal and lumbar. Comparative analysis showed differences in age VFF 71 (62-77) vs OFF 76 (68 – 83) years, p=0.0003. It highlighted a bimodal distribution according to age, with a peak incidence of 55 to 68 years and another between 75-80 years (Graph). Referral unit to FLS: VFF Rheumatology (42%) and/or Traumatology Emergency Room (44%) vs OFF Internal Medicine (45%) and General Traumatology Unit (38%), p=0.0001. There were also differences in the treatment with teriparatide (VFF 20% vs OFF 4%); zoledronic (VFF 6% vs OFF 3%) and alendronate (VFF 44% vs OFF 63%, p=0.0001); days of immobilization (VFF 30 (0 - 60) vs OFF 10 (0 - 30), p=0.01); they have greater independence to carry out activities of daily life (Barthel Scale) VFF 95 (81 – 100) vs OFF 80 (60 – 95), p=0.00001; increased lower risk of falls (J D Downton Scale) (VFF 43% vs OFF 60%, p=0.01). While the number of relevant comorbidities was higher in VFF (1 - 5) vs OFF 2 (1 - 4) it was not statistical, p=0.3. The use of GCS was risky for VFF (n=13, 13%) vs OFF (n=17, 5%), p=0.01 and RR (95%CI) 2.3 (1.01 – 5.3) and not for other drugs (GnRH inhibitors, aromatase inhibitors or chemotherapy). No differences in sex were found (VFF 80% vs OFF 80% women, p=0.9), previous FF history (9% vs 12%, p=0.2), secondary OP (16% vs 21%, p=0.1); percentage of patients with OP by femoral neck DEXA (VFF 35% vs 42%, p=0.2) or by lumbar spine DEXA (VFF 36% vs OFF 34%, p=0.8).

**Conclusion:** VFF have a bimodal age-based distribution, usually occurring in younger patients, with a higher degree of independence and muscle strength and lower risk of falls, although they are associated with longer duration of immobilization, compared to OFF. In our cohort, VFFs affect 2 or more vertebrae and they are commonly treated with parenteral osteoporotic drugs. The use of glucocorticoids doubled the risk of developing a VFF, these findings are similar to those of others published cohorts.

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**Bibliography:**

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**IMPACT OF BIOLOGICAL AGENTS, ORAL GLUCOCORTICOIDS, OR BOTH ON THE EFFICACY OF DAILY TERIPARATIDE TREATMENT FOR OSTEOPOROSIS IN PATIENTS WITH RHEUMATOID ARTHRITIS**

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**Background:** Daily teriparatide (dTP) strongly affects bone metabolism in patients with rheumatoid arthritis (RA), resulting in increased bone mineral density (BMD). We reported the 2-year results of dTP treatment for osteoporosis (OP) in patients with RA in EULAR2014 [1]. Drugs affecting bone metabolism, such as biological agents (BiOs) and glucocorticoids (GCs), are frequently administered to patients with RA in addition to dTP in daily clinical practice. Although dTP increases bone turnover, BiOs reduce osteoclast activity and GCs decrease bone turnover. We reported the effects of GCs or BiOs on the efficacy of dTP in EULAR2015 [2]. The present retrospective study investigated the effects of GCs or BiOs on the efficacy of dTP in patients with RA using a larger patient cohort.

**Objectives:** To evaluate the effects of BiOs, GCs, or both on the efficacy of dTP treatment for OP in patients with RA.

**Methods:** The study included 56 female patients who had completed 2 years of dTP treatment. We separated these patients into four groups according to their treatment regimen at dTP initiation: Bi(−)G(−), included patients who did not receive BiOs or GCs (n = 14); Bi(+)G(−), included patients treated only with BiOs (n = 8); Bi(−)G(+) included patients treated only with GCs (n = 24); and Bi(+)G(+) included...