References:

- [1] R. Bouillon, Comparative analysis of nutritional guidelines for vitamin D, *Nat. Rev. Endocrinol.* 13 (2017) 466–479. <https://doi.org/10.1038/nrendo.2017.31>.

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AB0894

OBSERVANCE OF ZOLEDRONIC ACID INFUSION. A RETROSPECTIVE 3 YEARS STUDY

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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:

- [1] Curtis JR et al. Adherence with intravenous zoledronate and intravenous ibandronate in the United States Medicare population. *Arthritis care & research.* 2012;64:1054-60.
- [2] Jaleel A et al. Improving drug adherence in osteoporosis: an update on more recent studies. *Therapeutic advances in musculoskeletal disease.* 2018;10:141-9.

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AB0895

RELATIONSHIP BETWEEN BONE MINERAL DENSITY, INFLAMMATORY ACTIVITY AND AUTOIMMUNITY IN A COHORT OF EARLY RHEUMATOID ARTHRITIS PATIENTS

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Background: The etiology of bone loss in Rheumatoid Arthritis (RA) is multifactorial and systemic inflammation plays a relevant role. Recently, a relationship between autoimmunity and bone mineral density (BMD) has been described in patients with RA.

Objectives: To study BMD and biochemical parameters of bone metabolism in a cohort of patients with early rheumatoid arthritis, and assess the relationship between them and autoimmunity and other markers of inflammation.

Methods: A prospective longitudinal study was performed. 128 patients from an early Rheumatoid Arthritis Unit (ERAU) were included. All of them fulfilled ACR 2010 classification criteria for RA. Demographic, clinical, biochemical, immunological, radiological and densitometric data, and also inflammatory activity index DAS 28, HAQ functional index, were collected. Any value >20 IU/mL for RF and >30 IU/mL for ACPA was defined as positive.

Results: Between January 2009 and June 2017, 801 patients were evaluated in our ERAU. After two years of follow-up, the most frequent definitive diagnoses were: Early RA 221 (27.6%), Undifferentiated Arthritis 97 (12.1%), Psoriatic Arthritis 62 (7.7%), Spondyloarthritis 54 (6.7%) and autoimmune Diseases 28 (3.4%).

From the 128 patients with early rheumatoid arthritis evaluated, 104 (81.9%) were ACPA positive and 98 (77.2%) FR positive. The mean BMD in the total column was 0.96 ±0.14 g/cm² and in the femoral neck was 0.76 ±0.12 g/cm². No correlation of BMD with autoimmunity markers was found in either of the two locations studied, while a negative relationship between BMD and the PCR inflammation marker (BMD femoral neck: rho=0.203, p = 0.027 and BMD lumbar spine rho =-0.27, p 0.003) was found. The BMD did not correlate with DAS28 nor the HAQ index.

The mean baseline serum calcidiol value was 20.7±8 ng/ml, and a negative correlation of basal serum calcidiol with the functional HAQ index was observed (rho=-0.23, p= 0.008). No correlation between other autoimmunity (FR and ACPA) and inflammation (VSG, PCR and DAS 28) markers and vitamin D was found.

Conclusion: The BMD in patients with early rheumatoid arthritis of our cohort correlates with the PCR inflammation marker. Unlike other studies shows, in our cohort, serological autoimmunity factors do not have shown to have an independent effect on BMD.

References:

- [1] Llorente I, Merino M, Ortiz AM, et al. Anti-citrullinated protein antibodies are associated with decreased bone mineral density: baseline data from a register of early arthritis patients. *Rheumatol Int* (2017) 37:799–806

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AB0896

EFFECTIVENESS OF SACROPLASTY IN THE MANAGEMENT OF OSTEOPOROTIC SACRAL FRACTURE IN ELDERLY PATIENTS

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Background: Sacral fractures are a source of pain leading to loss of autonomy in elderly patients. Sacroplasty may be an effective alternative of conservative medical treatment.

Objectives: To evaluate the short-term analgesic effect of sacroplasty compared to conservative treatment in patients with osteoporotic sacral fractures

Methods: This is a retrospective study of cases of osteoporotic sacral fractures treated with sacroplasty, compared with cases treated with conservative medical procedure over the same period. Outcome was evaluated by pain (Visual analogic scale) short-term (one month) evolution and side effects occurrence.

Results: From January 2009 to June 2019, eleven patients were treated with sacroplasty for osteoporotic fractures at the Besançon University Hospital Centre. These were compared to 12 patients with osteoporotic sacral fracture with exclusive medical management, as a control group. The two groups were similar in age, gender and pain level at baseline. The median VAS was 7/10 in both groups at baseline. In the sacroplasty group, a significant decrease of pain was observed over the two first weeks, with a tendency remaining at day 30. There were no significant differences in the conservative treatment group at one week (p=0.2), fourteen days (p=0.6) and thirty days (p=0.7) compared to basal assessment.

When comparing the sacroplasty group and the conservative treatment group, no differences were noted at baseline between the two groups, there was a significant difference between the two groups the following day (p=0.001), one