presented vitamin levels below the actual limits of 30ng/ml. These limits, used by most of the laboratories, tend to overestimate the vitamin D deficiency.

References:

- [1] Manson, JE. *N Engl J Med* 2018; DOI: 10.1056/NEJMoa1809944.
- [2] Spector, TD. *BMJ* 2016; 355: i6183
- [3] Wu, F. *Osteoporosis International* 2017; 28: 505-515.

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AB0904

PERSISTENCE AND REASONS FOR DISCONTINUATION OF DENOSUMAB IN PATIENTS WITH RHEUMATOID ARTHRITIS

S. Mizuki¹, T. Kai², K. Mishima³, H. Ikeuchi³, K. Oryoji³. ¹Matsuyama Red Cross Hospital, The Center for Rheumatic Diseases, Matsuyama, Japan; ²Matsuyama Red Cross Hospital, The Center for Rheumatic Diseases, Matsuyama, Japan; ³Matsuyama Red Cross Hospital, The Center for Rheumatic Diseases, Matsuyama, Japan

Background: Denosumab, a fully human monoclonal antibody to receptor activator of nuclear factor kappa B ligand, which inhibits osteoclast differentiation, activation and survival, not only increases bone mineral density but also inhibits the progression of bone erosion in patients with rheumatoid arthritis (RA)¹⁻³. Therefore, denosumab have been preferably prescribed for patients with RA recently. The persistence with denosumab, which is administered subcutaneously once every 6 months, was reported higher than with oral bisphosphonates⁴, and in the prospective cohort studies, the persistence rate for one year was reported to be 82-95%⁵⁻⁶. However, there have been no report about the persistence in patients with RA treated with denosumab, moreover the reasons for discontinuation of denosumab.

Objectives: The aims of this single center retrospective cohort study were 1) to assess the persistence with denosumab in a routine clinical setting and 2) to identify the reasons of discontinuation in patients with RA. And we also reviewed the clinical outcomes of osteonecrosis of the jaw in patients with RA during denosumab treatment.

Methods: The present study is based on databases from our hospital, which include age, gender, date of injection of denosumab, as well as information on patients' characteristics. Patients were included in this study when denosumab were newly started at our department during the period from June 1, 2013 and September 30, 2017. In this study, persistence was defined as patients with an interval between injections of no longer than 6 months plus 8 weeks. Patients were followed until censoring (death, transferring to another hospital) or the end of the study (August 3, 2018).

We investigated reasons for the discontinuation of denosumab. Major reasons for the discontinuation of denosumab were classified as adverse event, anxiety over adverse events, patient's transfer or request, doctor's careless lack of refilling an injection, and other reason.

We identified patients who had been diagnosed as osteonecrosis of the jaw, and demographic, pharmacological, and clinical data were collected from medical records.

Results: One hundred and seventy-five patients were identified. Kaplan-Meier analysis showed a slow decline of persistence after initiating denosumab therapy, dropping to 80.4 and 61.9 % after 1 and 2 years of follow-up. When analyzing the reason of discontinuation as adverse events, the persistence rate of denosumab was at 89.4, and 79.4% at 1, and 2 years of follow-up, respectively.

During 2-year period, 72 patients discontinued denosumab. A total of 27 adverse events occurred, of which five events were osteonecrosis of the jaw. The other

reasons for adverse event included death in four, fracture in three, and so on. Six patients discontinued due to anxiety over dental adverse event. Thirteen patients were in doctor's careless lack of refilling an injection. All five patients who were diagnosed as osteonecrosis of the jaw had received the treatment with prednisolone, and four were treated with biologic drugs. All patients stopped denosumab and switched to other drugs including teriparatide. All patients underwent surgical curettages of necrotic bone and cured.

Conclusion: Persistence of denosumab in patients with RA is comparable to that in postmenopausal women with osteoporosis. Dental screening and care should be important to continue denosumab treatment.

References:

- [1] Cohen SB. *Arthritis Rheum.* 2008;58:1299-1309.
- [2] Takeuchi T. *Ann Rheum Dis.* 2019;78:899-907.
- [3] Ebina K. *Osteoporos Int.* 2018;29:1627-1636.
- [4] Hadji P. *Osteoporos Int.* 2016;27:2967-2978.
- [5] Silverman SL. *Arch Osteoporos.* 2018;13:85. doi:10.1007/s11657-018-0491-z
- [6] Hadji P. *Osteoporos Int.* 2015;26:2479-2489.

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AB0905

THE PREVALENCE AND RISK FACTORS OF OSTEOPOROSIS IN PATIENTS WITH INFLAMMATORY BOWEL DISEASES: A TUNISIAN STUDY

L. Mnif¹, H. Gdoura¹, L. Chtourou¹, A. Amouri¹, M. Boudabbous¹, N. Tahr¹.

¹University Hospital Hédi Chaker, Gastroenterology, Sfax, Tunisia

Background: Osteoporosis is as known a chronic complication of inflammatory bowel diseases (IBD). Its etiopathogenesis is often multifactorial.

Objectives: The aim of our study was to describe the prevalence of reduced bone mineral density and to identify risk factors of osteoporosis in patients with inflammatory bowel diseases.

Methods: This is a retrospective study over three years, collecting patients suffering from IBD and having benefited from a bone densitometry. We have specified for each patient the clinical data and the IBD characteristics. Bone mineral density (BMD, g/cm) was assessed by dual X-ray absorptiometry. Osteoporosis was diagnosed when BMD was 2.5 standard deviations below the mean peak value in young adults (T score, 22.5 SD). Patients with other pathology that may change the bone metabolism were excluded.

Results: sixty-one patients were included with an average age of 38 ± 13 years [16-73]. The sex ratio M / F was 1.25. 69% of patients had ulcerative colitis. The bone density profile was normal in 49.2% of the cases. Osteoporosis and osteopenia were noted in 13.1% and 37.7% of patients, respectively. Osteoporosis was associated with advanced age (50.5 ± 16.5 years vs 36.26 ± 12.93 years; p = 0.007) and longer course disease (6.75 ± 7, 4 years vs 2.5 ± 4 years; p = 0.015). The cumulative dose of prednisone equivalent used in patients with osteoporosis was significantly higher than the other patients (2775 ± 3338 mg vs 706 ± 1449 mg; p = 0.003). Osteopenia was more frequently associated with crohn's disease (58% vs 28.6% p = 0.0029). There was no significant difference between the group with osteoporosis or osteopenia and the group with normal bone densitometry for sex and body mass index.

Conclusion: Osteoporosis during IBD is associated with advanced age, longer duration of illness and administration of high doses of corticosteroids. The high proportion of osteoporosis and osteopenia in our study underlines the importance of systematic BMD measurement in all IBD patients as a base for initiating the appropriate treatment.

References:

- [1] The prevalence and risk factors for osteoporosis in patients with inflammatory bowel disease. Miznerova E et al. *Bratisl Lek Listy.* 2013;114(8):439-45.
- [2] Osteoporosis and inflammatory bowel disease: prevalence and risk factors in Tunisian patients. Boubaker J et al. *Gastroenterol Clin Biol.* 2003 Oct;27(10):901-7.

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AB0906

PREVALENCE OF HYPOVITAMINOSIS D IN DIAGNOSTIC PATIENTS OF BREAST NEOPLASIA IS GREATER THAN EXPECTED FOR THE GENERAL POPULATION? SERIES OF 200 DIAGNOSTIC PATIENTS OF BREAST NEOPLASIA IN A TERTIARY HOSPITAL INITIATING TREATMENT WITH AROMATASE INHIBITORS

D. Montero¹, O. Ibarguengoitia¹, L. Vega¹, C. García¹, J. M. Blanco¹, M. E. Ruiz¹, A. R. Inchaurre¹, O. Fernandez¹, I. Calvo¹, C. E. Perez¹, M. L. García Vivar¹, E. Cuande¹, E. Galindez¹, A. Bilbao², I. Torre¹. ¹Basurto University