

Letter to the Editor

The Possible Under-reporting of Medication-related Osteonecrosis of the Jaw

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Bisphosphonates are widely used to treat bone metastases from malignant tumors and to prevent osteoporosis, as well as to manage a variety of different diseases. Despite the real benefits of its usage, an oral complication called bisphosphonates-related osteonecrosis of the jaw (BRONJ) emerged. The introduction of new antiresorptive drugs like Denosumab, Bevacizumab, Sunitinib and Everolimus lead some authors to discuss and to propose the term Drug-induced osteonecrosis of the jaw [1]. In 2011, a council from American Dental Association proposed the term antiresorptive agent-induced osteonecrosis of the jaw (ARONJ) [2]. Recently, an update paper published by American Association of Oral and Maxillofacial Surgeons recommended the changing of the nomenclature to medication-related osteonecrosis of the jaw (MRONJ) [3]. Despite the great number of publications regarding this topic, more questions than answers remain in evidence regarding the incidence, prevalence, pathogenesis, prevention and treatment of MRONJ.

The prevalence of MRONJ in cancer patients could range from 0.7% to 24.5%, depending on the parameters of the epidemiologic study and the quality of patient follow-up [4]. Denosumab, a human monoclonal antibody that act preventing the interaction between RANKL/RANK, has the incidence of inducing MRONJ in patients treated for cancer metastases to the bones ranging from 1.5% [5] to 1.8% [6], whereas the risk for cancer patients treated with the antiangiogenic agent Bevacizumab is 0.2% [7]. In the group of patients receiving medications to prevent osteoporosis the prevalence of MRONJ is about 0.1% [2].

Adverse drug reactions could be reported to the government agencies responsible for medications control, like Food and Drug

Administration (FDA) in the USA and *Agência Nacional de Vigilância Sanitária* (ANVISA) in Brazil. Unfortunately, this report in Brazil is voluntary, and thus, many adverse drug reactions are underestimated, since the professional do not have the information or the habit to fill the electronic form available in the website. A considerable variation of the data regarding the risk of development of MRONJ, as well as the increasing number of case series or case reports published, lead us to question the possibility of the underestimation or the under-reporting of MRONJ cases.

The prescription of medications to prevent bone resorption should be controlled by the regulatory agencies. Furthermore, the creation of a specific and as simple as possible form to report MRONJ by these regulatory agencies should be take in account. These measures could contribute to a better estimation of the number of patients using these medications and presenting MRONJ, leading to a real estimation of the risk.

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