



Comment to “Radiographic changes of mandibular cortical bone in bisphosphonate drug holiday”

Aiswarya Vaidyanathan¹, Hariprasad Chinniahnapalaya Pandurangaiah²

¹Department of Oral and Maxillofacial Surgery, ²Department of Trauma and Emergency Medicine,
All India Institute of Medical Sciences (AIIMS), Patna, India

To the Editor,

We read the article titled “Radiographic changes of mandibular cortical bone in bisphosphonate drug holiday” by Lee et al.¹ with great interest and would like to appreciate the authors for their fine work. There are a few observations that we would like to highlight for the benefit of the readers.

1) Of the 36 patients that the authors have enlisted in Table 1, two cases of bone tumour patients have been included with the rest being osteoporotic patients. Bone tumours cause aggressive resorption and should have been excluded from the study².

2) The MCI (mandibular cortical index) which has excellent repeatability and reliability could have been taken instead of the PMI (panoramic mandibular index) in which, apart from the disadvantages mentioned in your paper, difficulty is encountered in identifying the mental foramen³.

3) As per the data in Table 1 – all the bisphosphonates (BPs) mentioned are nitrogen containing bisphosphonates with varying potencies and hence varied effects on the bone. For e.g., Pamidronate’s (which is a second-generation BP) relative potency is only 100 when compared to Zoledronate (3rd generation BP) whose relative potency is 10,000. Hence Zoledronate will cause a greater increase in the bone mineral density when compared to Pamidronate in a relatively short period of time. Also, Alendronate is given orally, whereas Zoledronate and Pamidronate are given intravenously. This again creates a disparity as the IV BPs are far more potent

than oral BPs and known to cause osteonecrosis⁴. Hence only same generation of BPs either oral (or) IV should have been included in the study in order to ensure homogeneity.

4) Again, as per the data mentioned in Table 1, 15 patients were followed up to a duration of 18-24 months (T2), but in Tables 2, 3, 4, and 5 as well as in Fig. 2 it is mentioned that the size of the group T1-T2 is 13. This discrepancy between the tables is confusing and needs clarification.

ORCID

Aiswarya Vaidyanathan, <https://orcid.org/0000-0001-6259-2724>

Hariprasad Chinniahnapalaya Pandurangaiah, <https://orcid.org/0000-0002-4422-2129>

Authors’ Contributions

A.V. was involved in critically appraising the article and drafting the manuscript. H.C.P. helped with the critical appraisal and final review of the manuscript.

Funding

No funding to declare.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

References

1. Lee DH, Seo JI, Song SI, Lee JK. Radiographic changes of mandibular cortical bone in bisphosphonate drug holiday. *J Korean Assoc Oral Maxillofac Surg* 2022;48:219-24. <https://doi.org/10.5125/jkaoms.2022.48.4.219>

Aiswarya Vaidyanathan

Department of Oral and Maxillofacial Surgery, All India Institute of Medical Sciences (AIIMS), Phulwarisharif, Patna 801507, India
TEL: +91-9444631194

E-mail: ash3vaidya@gmail.com

ORCID: <https://orcid.org/0000-0001-6259-2724>

© This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Copyright © 2023 The Korean Association of Oral and Maxillofacial Surgeons.

2. Jimi E, Furuta H, Matsuo K, Tominaga K, Takahashi T, Nakanishi O. The cellular and molecular mechanisms of bone invasion by oral squamous cell carcinoma. *Oral Dis* 2011;17:462-8. <https://doi.org/10.1111/j.1601-0825.2010.01781.x>
3. Asha ML, Bajoria AA, Babshet M, Patil P, Naveen S. Bone mineral density measurement of the jaws – a review. *J Invest Dent Sci* 2014;1:0000004.
4. Madrid C, Bouferrache K, Abarca M, Jaques B, Broome M. Bisphosphonate-related osteonecrosis of the jaws: how to manage cancer patients. *Oral Oncol* 2010;46:468-70. <https://doi.org/10.1016/j.oraloncology.2010.03.016>

How to cite this article: Vaidyanathan A, Chinniahnapalaya Pandurangaiah H. Comment to “Radiographic changes of mandibular cortical bone in bisphosphonate drug holiday”. *J Korean Assoc Oral Maxillofac Surg* 2023;49:55-56. <https://doi.org/10.5125/jkaoms.2023.49.1.55>