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Journal Name:	**Journal of Pharmaceutical Research International**
Manuscript Number:	**Ms_JPRI_77208**
Title of the Manuscript:	**A CONE-BEAM COMPUTED TOMOGRAPHY BASED ASSESSMENT OF MENTAL FORAMEN POSITION**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	In the study entitled **"A Cone-Beam Computed Tomography based Assessment of Mental Foramen Position",** the authors tried to assess the occurrence and location of the mental foramen in relation to gender and age by using cone-beam computed tomography. A descriptive case series study was conducted at department of radiology at advance diagnostic care centre, Institute of Dentistry, Liaquat University of Medical & Health Sciences Hyderabad. One hundred and fifty patients of either gender, having age 18-40 years with retained permanent dentition and recommended for cone-beam computed tomography (CBCT) radiograph were selected by non-probability convenient sampling technique. Patients with history of bone disease, old trauma and not willing to participate were excluded. CBCT imaging of each patient will be performed and assessed for occurrence and location of the mental foramen. Out of 150 patients, male were 98 (65.3%) and female were 52 (34.7%) with mean age of 28.8 ± 6.9 (18-40) years. Position 4 was the most common right side horizontal position with 74 (49.3%) patients followed by position 3 with 69(46.0%) patients, position 5 with 6(4.0%) patients and position 2 with 1(0.7%) patients. Similarly position 4 was the most common left side horizontal position with 75(50.0%) patients followed by position 3 with 70(46.7%) patients, and position 5 with 5(3.3%) patients. Position 1 was only choice either for right or left side vertical position in all patients i.e., 150 (100.0%). The article is described in detail in accordance with the objectives in a methodical and result-oriented manner. From this point of view, there are no objections on the part of the reviewer. In the discussion, however, the reviewer would have added three more elements: - The split-mouth design - Hawthorne effect ***The split-mouth design*** The split-mouth design has been one of the main investigation methods used in clinical studies for many years (Hujoel and Loesche, 1990). The split-mouth division into two experimental units shows the greatest scientific efficiency compared to other divisions and should be therefore chosen in this study. The split-mouth design that should be used should divide the dentition into right and left halves, following Ramfjord et al. (1968). By combining the split-mouth design with the cross-over design in the reviewed study, the investigations could be performed with a significantly reduced number of patients (Elbourne et al., 2002). The possibility of a residual effect with a change in application can lead to confounding of the results in a study with a cross-over design (Elbourne et al., 2002). The risk that the results in the reviewed study were influenced by a residual effect will be significantly reduced by a washout period between application intervals of three months. The choice of the cross-over design allowed each patient to experience both therapies, i.e., normal oral hygiene and normal oral hygiene with additive therapeutic use, and to report their subjective feelings to the investigator in the mentioned questionnaire at the end of the study. According to Antczak-Bouckoms et al. (1990), the cross-over design should only be performed in patients with chronic diseases and a relatively stable oral situation. Both were true for the participants in this study with chronic periodontitis on maintenance therapy. ***Hawthorne effect*** As is generally the case in connection with dental clinical studies, it is conceivable in this study that the Hawthorne effect had an influence on the results obtained (Campbell et al., 1995). The assumption here is that the very act of participating in a study causes participants	

	in a study to change their natural behavior because they know they are participating in a study and are under observation. Consequently, it is possible that the subjects in this study improved their normal oral hygiene behavior for the period of the study by taking more time for more thorough and better dental care. The current body of research suggests that women are more concerned with their oral hygiene behaviors and more interested in maintaining their oral health than men (Ostberg et al., 1999; Kateeb, 2010). Despite the evidence of improved and intensified oral hygiene among women, men often exhibit better oral situations when compared by age (Zubiene et al., 2009). However, it cannot be ruled out that interindividual differences in effectiveness due to differing motivation or skill of the subjects were present, which is generally considered to be a limiting factor in studies evaluating the effectiveness of oral hygiene interventions. Furthermore, the reviewer must state that the methodological equipment of the study is extremely poor compared to published papers, compare Pubmed Review. 1. Aldosimani MA, Aljarbou FA, Althumairy RI, Alhezam AA, Aldawsari AI. Analysis of mandibular premolar root position in relation to adjacent cortical plates and mental foramen using cone beam computed tomography in the Saudi population. Saudi Med J. 2019 Mar;40(3):298-301. doi: 10.15537/smj.2019.3.23597. PMID: 30834427; PMCID: PMC6468202. 2. Shokry SM, Alshaib SA, Al Mohaimeed ZZ, Ghanimah F, Altyebe MM, Alenezi MA, Shadd F, Aldali SZ, Alotaibi MM. Assessment of the Inferior Alveolar Nerve Canal Course Among Saudis by Cone Beam Computed Tomography (Pilot Study). J Maxillofac Oral Surg. 2019 Sep;18(3):452-458. doi: 10.1007/s12663-018-1167-3. Epub 2018 Oct 17. PMID: 31371890; PMCID: PMC6639523. 3. Pelé A, Berry PA, Evanno C, Jordana F. Evaluation of Mental Foramen with Cone Beam Computed Tomography: A Systematic Review of Literature. Radiol Res Pract. 2021 Jan 6; 2021:8897275. doi: 10.1155/2021/8897275. PMID: 33505723; PMCID: PMC7806401. 4. Valdec S, Borm JM, Casparis S, Damerau G, Locher M, Stadlinger B. Vestibular bone thickness of the mandible in relation to the mandibular canal-a retrospective CBCT-based study. Int J Implant Dent. 2019 Nov 15;5(1):37. doi: 10.1186/s40729-019-0189-z. PMID: 31728780; PMCID: PMC6856235. By the way, all these studies are not included in the literature citations of the publication. “It was concluded from the study that no significant difference was observed in occurrence and location of the mental foramen in relation to gender and age by using cone-beam computed tomography”. These conclusions need to be revised again in light of the literature references cited by the reviewer.	
Minor REVISION comments		
Optional/General comments	**Conclusion** Considering these limitations and based on the issues listed, I recommend to rewriting (major revision) the study with allowing a resubmission. Witten, 18.11.2021	

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PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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