

Revisited neurovascularization of anterior mandible using CBCT and its importance

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For a long time the anterior mandible, was considered a safe zone for various surgical procedures. With the increasing use of implants and grafting procedures, the number of reported postoperative complaints has been rising such as neurosensory disturbances and hemorrhage in the anterior mandible. This necessitated the need for more accurate preoperative evaluation of the anterior jaw. The prevalence and characteristics of mental and genial spinal foramina in a group of Thai population was evaluated. A total of 107 preoperative CT scan of the mandible were selected. Morphology, location, exit pattern and distance from certain bony landmarks were analyzed by reconstruction of cross-sectional and panoramic views using Denti-Plan software program. It was found that the mental foramen was located predominantly at the apex of the second premolar (46%), followed by between apices of premolars (35.8%). The most common morphology was round (65%), followed by oval shapes (21%). At the midline of the mandible, the superior and inferior genial spinal foramina were localized in 80.3% and 32.7% of cases, respectively. The accessory mental foramen was found 6.6% of patients. The average distance from the lower and the upper border of the mandibular body to the center of the mental foramen was 11.70 ± 2.13 and 16.34 ± 3.79 mm respectively. In conclusion, the horizontal position of mental foramen varies among different population. High prevalence rates of superior and inferior genial spinal foramina may necessitate more accurate preoperative analysis by surgeon to prevent surgical complications.

Biography

Mehdi A Ebrahimi completed his DDS at AUST with Honor. He was involved in dental practice at MOH hospitals and also worked as clinical instructor in periodontology department at AUST. Then he joined Prince of Songkla University in 2008 where he completed his higher Graduate Diploma and MSc with Honor in Clinical Oral and Maxillofacial Surgery. He studied neurovascularization of jaw in Thai population. Later, He was involved as an active Researcher at National Metal and Materials Technology Center in Bangkok for development of nano-biomaterial as bone substitute. He is now involved as part time clinical supervisor at AUST.

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