

125: Orientations and Variations of Mandibular canal in Thai patients

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Objectives: The knowledge of relevant anatomy and variations of inferior alveolar canal are an importance factor that determines the successful rate of surgical procedure in mandible. Their orientations are differing individually. Morphology variations could be observed as an intraosseous anterior loop (AL) or bifid mandibular canals. Therefore, the identification of the course of inferior alveolar canal and variations could be promoted for clinicians guidance to achieve better treatment planning in Thai patients. Therefore, the aim of study was to report (a) the orientation of the mandibular canal and (b) evaluate the variation of the mandibular canal **Methods:** 429 mandibular sides using CBCT radiographs from i-CAT machine with Invivo dental 5.0 software. All data was analyzed by IBM SPSS 20.0 for window. Reproductive of variations and orientations were evaluated by 2 trained observers. **Results:** From 429 mandibular sides in CBCT images, the variations of mandibular canal was found in 11% of bifid mandibular canal and 74.1% of anterior loop. The most orientations was found in type III (elliptic arch curve) 47.6%. **Conclusions:** Therefore, in our research, excellent detection of CBCT was able to detect complicated structure beyond panoramic radiographs. Thus, the presence of anterior loop and bifid mandibular canals are accurately determined by CBCT radiographs. The data information from this study will be useful for treatment planning in mandibular surgical procedures of Thai patients.