RACIAL DIFFERENCES IN THE POSITION OF MANDBULAR CANAL AMONG THE MALAYSIAN POPULATION USING CBCT

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Aim: To determine the racial difference of the mandibular canal positions in dentate Malaysians using the Cone Beam Computed Tomography (CBCT) and Simplant interactive software.

Methods: The samples for this study included imaging of 60 patients (30 males and 30 females) from the Division of Oral Radiology, with ages ranging from 20 to 60 years (mean age, 47 years). The measurements of the mandibular canal length were done in coronal view of the jaw at every 1cm interval from the mental foramen backwards (D1-D4); the position of the mandibular canal was measured at four different locations.

Results: One way ANOVA test showed that there were no significant differences for the location of mandibular canal at D1 amongst all the races, while there were significant differences for mandibular canal location at D2, D3 and D4. A more statistical analysis showed that at D2 location, significant difference was observed between Chinese and Indians (p=0.005) while there was no difference between the others. At D3, significant difference was noticed between Malays and Chinese (p=0.038) and also between Chinese and Indians (p=0.002). Significant differences were noticed at D4 between Malays and Chinese (p=0.049) and between Chinese and Indians (p=0.028).

Conclusion: Based on our findings, it was observed that there was no significant difference in the location of canal at D1 position. However, when we advanced posteriorly in the mandible there was an obvious variation of the position of the canal amongst the races; therefore clinicians should be aware of this variation in the Malaysian population.

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EFFECT OF CHLORHEXIDINE GLUCONATE 0.05% ON BACTEREMIA FOLLOWING THIRD MOLAR SURGERY

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Background: Gingival pocket is the main harbor for anaerobic bacteria and is thought to be the main agent in spread of infection to another part of the body.

Aim: The aim of this study is to examine the effect of preoperative rinsing with Chlorhexidine gluconate 0.05% on bacteremia following the surgical extraction of partly erupted mandibular third molars.

Methods: The study protocol was approved by the institution’s ethics committee, and the patients gave their informed consent in writing. Ten respondents participated as the subjects on the clinical trial with indications of pericoronitis or ‘causa eruptioni deficillis’ of the third lower molar. Treatment were conducted as follows: five subjects act as the treatment group rinsing with CHX 0.05% and the other five as control group rinsing with NaCl 0.9%. Blood vein samples were taken directly after third lower molar surgery and placed in the tube containing Brain Heart Infusion broth. The blood samples were incubated in anaerobic condition. The data obtained regarding the colony forming units (CFU) of the bacteria growth was done in a descriptive method.

Results: The results showed that there were no colony forming units (CFU) of the bacteria growth in subjects using CHX 0.05%, while there were colony forming units (CFU) of the bacteria growth found in those subjects using NaCl 0.9%.

Conclusion: We concluded that preoperative rinsing with Chlorhexidine gluconate 0.05% is effective in suppressing bacteremia following the removal of impacted lower third molars. It can be used as preoperative disinfectant to reduce bacteremia on the surgical site of the lower third molar.

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