

Comparative Study for the Anesthetic Efficacy between Articaine HCl and Lidocaine HCl during the Surgical Extraction of Bilateral Mandibular Impacted Third Molars

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Background: Articaine, a new amide-type local anesthetic, was recently commercially available in Korea. The purpose of this study was to compare the anesthetic efficacy between articaine HCl and lidocaine HCl for the surgical extraction of bilateral mandibular impacted third molars.

Patients and Methods: Forty young and healthy patients with bilateral impacted third molars were selected with permission. Randomly, one side of impacted third molar was operated under local anesthesia using 4% articaine and the other side under 2% lidocaine after 1 or 2 week recovery time. Intraoperative pain was evaluated via 0-10 cm visual analog scale (VAS) by both the patient and operator immediately after the operation. After 1 day and 7 days, the complications of local anesthesia were checked.

Results: The pain VAS scores in articaine group, evaluated by both the patient and operator, were lower than those in lidocaine group, but they were not statistically significant ($p=0.44$ and 0.54 , respectively). The incidence of complications of local anesthesia between articaine and lidocaine was similar.

Conclusion: In this study, articaine showed at least equal efficacy compared to lidocaine. The further dose-controlled study with more pharmacokinetic parameters will be needed.