

Comparison of bleeding time in the buccal mucosa with IVY method in patients undergoing surgery

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Abstract

Background and Aim: One of the most important challenges in Endodontics is to achieve a successful anesthesia in mandibular molars with symptomatic irreversible pulpitis. The purpose of this study was to compare the anesthetic efficacy of buccal and/or lingual supplementary injections of Articaine in mandibular molars with symptomatic irreversible pulpitis.

Materials and Methods: In this prospective, randomized, double blind, clinical trial study, one hundred sixty first and second molars with symptomatic irreversible pulpitis were selected based on included and excluded criteria. Initially all samples received IANB by using 2% lidocaine with 1:100,000 epinephrine. After 15 minutes the teeth were negatively responded to cold test received supplementary injections by using 4% Articaine with 1:100,000 epinephrine as following groups: 1) control (without supplementary injection) 2) buccal infiltration 3) lingual infiltration 4) buccal_lingual infiltration. Intensity of pain was assessed based on HP-VAS (0-170 mm) in different intervals including access cavity preparation, pulpotomy and pulpectomy. All data were statistically analyzed using Chi-square, T-test and Kruskal-wallis.

Result: There is no statistical differences regarding intensity of pain among all groups ($P > 0/05$). However in first molar both buccal and buccal_lingual supplemental infiltrations were significantly more successful than controls ($P = 0.02$ and $P = 0.005$, respectively). In addition buccal_lingual supplemental infiltration in second molars showed higher success compare to control. ($P = 0.005$)

Conclusion: It seems that a new approach of buccal_lingual infiltration of Articaine may improve the anesthesia in mandibular molars with symptomatic irreversible pulpitis. However, none of the above methods reach to 100% success.

Keywords: infiltration anesthesia, Articaine, pulpitis, inferior alveolar nerve block, supplementary injection.