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"COMPARATIVE EVALUATION OF 4% ARTICAINE HYDROCHLORIDE AND 2% LIDOCAINEHYDROCHLORIDE INFILTRATION FOR SUBGINGIVAL SCALING AND ROOT PLANING: A RANDOMIZED DOUBLE-BLIND SPLIT-MOUTH STUDY"

By

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ABSTRACT

BACKGROUND AND OBJECTIVES

The selection of a particular anaesthetic agent depends on the arch, number of teeth requiring anesthesia, the area of soft tissue anesthesia required for the subgingival scaling. The objectives of this study were to evaluate and comparative anesthetic efficacy of the infiltration anesthesia of 4% articaine with 1:100,000 epinephrine (4%Ar + Ep) and 2% lidocaine with 1:100,000 epinephrine (2%Li + Ep) for subgingival scaling and root planing (SRP) in mandibular arch.in terms clinical anesthetic parameters in relation to patient compliance including anxiety level, duration of anesthesia, pain perception and patient satisfaction with the procedure.

MATERIALS AND METHODS

This was randomized double bind split-mouth study. Study included 50 adult patient with generalized periodontitis received 4%Ar + Ep with 2%Li + Ep for subgingival SRP. Comparison of these anesthetic solution was evaluated with the success rate, onset and duration of anesthesia. Anxiety level and VAS score were also recorded.

RESULTS

Both anesthetic solutions were effective during subgingival scaling and root planing. The results of the study had shown no significant difference between both groups in terms of anxiety level. Subjects receiving 4% Articaine local anesthetic solution has experienced less pain during the subgingival scaling and root planing.4% articaine has shown longer duration

of anesthesia of upto 2.61 hours. Results indicates that all patients were satisfied with both anesthetic solutions for subgingival scaling and root planing.

CONCLUSION

Articaine was a suitable alternative for lidocaine for mandibular local infiltration in subgingival scaling and root planing. It was superior to lidocaine.

CLINICAL RELEVANCE

4%Ar + Ep provides an effective anesthesia for routine subgingival SRP with better patient compliance.

Keywords: Local anesthesia; articaine; lidocaine; mandibular infiltration injection; scaling and root planing; buccal infiltration; local Infiltration