

عنوان مقاله:

Comparison of the Emulsion and Liposomal Forms of Lidocaine-Prilocaine Mixture Prior to Topical Anesthetic Injection: A Clinical Trial Study

محل انتشار:

مجله مواد و تکنیک های دندانپزشکی، دوره 11، شماره 2 (سال: 1401)

تعداد صفحات اصل مقاله: 9

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خلاصه مقاله:

Introduction: This study aimed to investigate the effect of liposomal and emulsion forms of topical anesthesia on pain reduction during dental anesthesia. **Methods:** The study was a randomized clinical trial with a split-mouth design conducted on 15 patients who were referred to a private dental clinic and needed injectable anesthesia for flap surgery in the posterior maxillary area. First, one of the four concentrations (2%, 5%, 7.5%, and 10%) of the emulsion form of Lidocaine-Prilocaine topical anesthesia was applied on one side of the maxilla, and two weeks later, four concentrations of the liposomal form were applied on the other side. These areas were randomly selected for topical anesthesia before injecting anesthesia into the vestibular area. The amount of pain caused by needle insertion was measured by the Visual Analogue Scale. **Results:** The comparison of the emulsion and liposomal forms of Lidocaine-Prilocaine topical anesthesia indicated that 5% of the emulsion form and 7.5% of the liposomal form demonstrated the lowest VAS scores; however, the comparison of different concentrations of the emulsion ($P=0.46$) and liposomal forms ($P=0.64$) did not indicate any significant difference. There was not any statistically significant difference between liposomal and emulsion forms regarding the same concentrations ($P=0.75$). **Conclusion:** Despite the longer substantivity of the liposomal form of Lidocaine-Prilocaine topical anesthesia on the oral mucosa, compared to that of the emulsion form, the findings of the present study revealed that different concentrations of topical anesthesia did not significantly differ in terms of pain reduction efficacy.

کلمات کلیدی:

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