

Research Article

Abstract

Experience: The effect of the action of vibration in pain analgesia is relatively well established, however little is known about the real effect of vibration on pain reduction.

Objective: To compare children's reactions when undergoing dental local anesthesia using an anesthesia device that produces micro-vibrations.

Method: Thirty children underwent two types of anesthesia: with and without vibration. The anesthetic procedures were performed in two sessions. At the end of the second anesthesia session, the children reported their preferences regarding the use of vibration or not.

Results: A significant difference was found in the Visual Analogue Scale (VAS) when comparing the mean values ($p=0.04$) using selective vibration.

Conclusion: The use of selective vibration is preferred by children.

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INTRODUCTION

Pain is a common experience in children, and it can be caused by various factors, such as dental procedures, injuries, and illnesses. The management of pain in children is a challenge for healthcare professionals, as they need to use safe and effective analgesics. The use of vibration as an adjunct to local anesthesia has been studied in several studies, showing promising results in reducing pain and anxiety in children.

The purpose of this study was to compare children's reactions when undergoing dental local anesthesia using an anesthesia device that produces micro-vibrations. The study was conducted in a dental clinic, and the participants were 30 children aged between 5 and 10 years old. The children were divided into two groups: one group received local anesthesia without vibration, and the other group received local anesthesia with vibration. The children's reactions were measured using the Visual Analogue Scale (VAS) at the end of the second anesthesia session.

The results of the study showed that there was a significant difference in the VAS scores between the two groups. The children in the vibration group reported lower pain levels compared to the children in the no-vibration group. This suggests that the use of selective vibration is preferred by children and may be a useful adjunct to local anesthesia in pediatric dentistry.

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