

عنوان مقاله:

Evaluation of Electronic Dental Anesthesia as a Non-Invasive Method in Children: A Review Study

محل انتشار:

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خلاصه مقاله:

Background The findings of various studies have supported the analgesic effect of transcutaneous electrical nerve stimulation (TENS). Studies yielded contradictory findings on electronic dental anesthesia (EDA) as a non-invasive method. This review study aims to evaluate the EDA as a non-invasive method. **Materials and Methods** This review study was conducted by screening all clinical trials evaluating the EDA in children. An electronic search was performed in Scopus, EMBASE, Cochrane, Web of Science, and Medline with no language or time restrictions. **Results** Six clinical trials were included in this study. The results of the first study showed that EDA was less effective than local anesthesia. Another study indicated no statistically significant difference between the two groups in terms of perception of pain intensity and comfort. The third study revealed no significant differences between the two methods in terms of the level of pain in the first deciduous molars, but a higher level of pain was reported in the second deciduous molar in the case of the injection method. A comparison of behavioral responses and changes in vital signs of children in local anesthesia and electronic anesthesia methods showed positive responses to the latter. A combination of music and electronic anesthesia was reported to be effective in the relief of pain in children under the treatment of two corresponding deciduous molars. Another study showed that the vibraject technique led to a statistically significant reduction in pain among children. **Conclusion** The findings of this review study emphasize the importance of analgesic techniques in pediatric dental procedures. The use of new techniques along with conventional methods of analgesia should be taken into consideration, especially in pediatric dentistry.

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