
Comparison of topical EMLA 5% to Benzocaine 20% during palatal infiltration of local anesthesia. GABRIELA ROLLAND-ASENSI*, ROBERT PRIMOSCH. UF College of Dentistry. Miami Children's Hospital.

PURPOSE: The purpose of this investigation was to compare the pain responses of children during local anesthetic infiltration at bilateral palatal sites prepared with the topical application of benzocaine 20% oral adhesive (Orabase-B) versus benzocaine 20% gel (Hurricane) or EMLA 5% oral adhesive (EMLA 5% cream in Orabase Plain). **METHODS:** Forty subjects, aged 7-15 years old, received bilateral palatal injections following topical application of anesthetic agents applied in a randomized, crossover design. Pain responses were compared based upon subject self-report using a visual analogue scale, changes in the subject's heart rate, and operator assessment using a modified Children's Hospital of Eastern Ontario Pain Scale that rated behavioral changes in children. Following the injections, the subjects were asked to choose which agent was preferred based on comfort and taste acceptance. **RESULTS:** All the agents tested were equivalent in injection pain response comparisons, but Hurricane had a slight advantage in expressed subject preference and taste acceptance over the other topical anesthetic agents tested. **CONCLUSIONS:** The selection of EMLA 5% oral adhesive over other commercially available products containing benzocaine 20% is not recommended for palatal site preparation in children. The lack of demonstrated superiority in efficacy and subject preference, the necessity to custom mix the cream into an oral adhesive paste, the extended duration of time required for onset of action, the greater potential for complications associated with systemic absorption, and product cost preclude the use of EMLA 5% oral adhesive as an intraoral topical anesthetic agent.