

Evaluation of anesthetic efficacy in human oral cavity: clinical trial studies

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ABSTRACT

Local anesthesia is essential to perform dental treatment. Topical anesthesia is a widely used procedure to reduce pain from needle insertion and local anesthetic injection. However, its success is not always achieved with the commercial available formulations. As a result, local anesthesia is one of the most feared procedures by most of patients who relate it to anxiety and fear of feeling pain during dental treatment. Our efforts have been focused to develop more efficacious formulations based on local anesthetics in drug delivery systems. Methods used to evaluate anesthetic efficacy in the human oral cavity in clinical trials involving newly designed formulations will be discussed with focus on: (i) superficial and deep anesthesia quality after topical application at the buccal fold; (ii) superficial anesthesia quality after topical application at the palate.



BIOSKETCH

Dr. Leite is an Assistant Professor of Piracicaba Dental School at University of Campinas - UNICAMP. Her research interests are in the fields of drug delivery systems for local anesthetics in Dentistry. Her laboratory is currently investigating different drug delivery systems such as liposomes and nanoparticles to improve topical and local anesthesia to dental procedures.

Dr. Leite completed her Bachelor of Dental Surgeon. Subsequently she obtained her master and doctoral degree in Dentistry with focus in Pharmacology, Anesthesiology and Therapeutics Area from Piracicaba Dental School – UNICAMP, in 2006 and 2009, respectively. Dr. Leite received her postdoctoral training in the field of vitro/in vivo transdermal and mucosal permeation and dermatopharmacokinetics studies at Institute of Biology - UNICAMP with an exchange internship at the University of Parma, Parma, Italy.