

Control of pain during needle penetration using Lignocaine in gel and spray form in children: A randomized clinical trial

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Background: Topical anaesthetic is one of the methods used to overcome pain during injection of local anaesthetic. Topical anaesthetics are available in several formulations such as aerosols, ointments, gels, lozenges and impregnated patches with different concentrations depending upon the formulations. The efficacy of one over the other of these formulations containing the same pharmacologic agent is unknown.

Aim: To compare the pain during needle penetration using 15% lignocaine spray and 8% lignocaine gel as a topical anaesthetic during buccal infiltration of local anesthesia.

Method: Study design: Randomized clinical trial. Children between 7-12 years of age, who were required to undergo operative procedures in the maxillary arch, under buccal infiltration were selected. A total of 42 patients were equally divided into two groups, Group A: 8% Lignocaine gel and Group B: 15% Lignocaine spray by random allocation. After the application of the topical anaesthetic, buccal infiltration anaesthesia was administered by an operator who was blinded to the type of topical anaesthetic used. Each child quantified the pain perceived using Wong-Baker FACES pain rating scale. A third operator, who was also blinded, assessed the pain using the FLACC behavioural pain assessment scale.

Results: Pearson chi-square test demonstrated that there was no significant difference between the two groups in the FLACC scores ($p=0.54$). Independent t test demonstrated that there was no significant difference in patient response between the two topical agents used ($p=0.07$).

Conclusion: Both lignocaine spray and gel are equivocal in controlling pain during needle penetration for buccal infiltration in children.

Biography

Suprabha B. S obtained her BDS, and MDS degree in Paedodontics and Preventive Dentistry from Manipal University, Manipal in the years 1997 and 1999 respectively. She is currently working as Additional Professor in the Department of Paedodontics and Preventive Dentistry at Manipal College of Dental Sciences, Mangalore and has 13 years of work experience in academic field. She has 22 publications to her credit in national and international journals. She has been a reviewer for various reputed national and international journals. She has been appointed as PhD guide of Manipal University in 2012.

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