

REVIEWER'S REPORT

Manuscript No.: IJAR-57191

Title: Comparative evaluation of vibrotactile device with topical anaesthetic patch to reduce pain during administration of local anaesthesia in paediatric dental patients.

Recommendation:

Accept as it is

Accept after minor revision...

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		Good		
Techn. Quality		Good		
Clarity	Excellent			
Significance	Excellent			

Reviewer's ID: Dr. Sumathi

Detailed Reviewer's Report

- Lidocaine patches (typically 4% OTC or 5% prescription) are topical anesthetic adhesive patches that provide temporary relief for localized nerve, muscle, or joint pain, such as shingle-related post-herpetic neuralgia, backaches, and arthritis. They work by blocking pain signals at skin nerve endings, with effects lasting up to 12 hours.**
- Lignocaine, commonly known as lidocaine, is a fast-acting local anesthetic and antiarrhythmic medication used to numb specific body areas or treat ventricular tachycardia. It works by blocking nerve signals in the body, providing pain relief for minor skin conditions, dental procedures, or surgical interventions. It is commonly applied via injections, creams, patches, or sprays.**
- Local anesthesia is a medication used to temporarily numb a specific, small area of the body—such as for dental work, skin biopsies, or minor stitches—without causing loss of consciousness. It works by blocking nerve signals (specifically sodium channels) in that area, with effects typically lasting from 30 minutes to several hours.**
- Pediatric dental patients (ages 6 months to 18 years) receive specialized oral care from trained dentists focusing on preventive,**

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restorative, and behavioral needs. Services include cleanings, fluoride treatments, sealants, fillings, and emergency care. Pediatric dentists use behavior guidance and, if necessary, sedation for procedures in a friendly, often themed environment.

5. Vibrotactile devices use mechanical vibrations on the skin to enhance communication, mobility, and rehabilitation. They are commonly applied as wearable technology for managing neurological conditions like Parkinson's tremor (e.g., CUE1), sensory rehabilitation post-stroke, and reducing pain through distraction, such as in dentistry.
6. A topical anesthetic patch is an adhesive patch containing medication, usually lidocaine, applied directly to the skin or mucosa to temporarily numb a specific area and relieve localized pain. They treat issues like nerve pain (shingles), minor injuries, or oral irritations by blocking nerve signals, often providing relief for up to 12 hours.
7. Comparative evaluations, particularly in pediatric dentistry, demonstrate that vibrotactile devices (mucosal vibrators) are more effective than topical anesthetic patches or gels at reducing pain during the administration of local anesthesia. These devices, based on the gate control theory of pain, provide continuous vibration that distracts the nerve endings, making them a superior or highly complementary alternative to traditional pharmacological topical agents.
8. Key words and abstract are good.
9. Significant points with tables and graphs are awesome.
10. Summary points can be included.
11. References should be in alphabetical order.
12. After a small changes good to publish in your journal.