



Short Communication

Role of transdermal patches in orthodontic procedures: A game changer

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Postoperative pain is considered synonymous to dental procedures, especially orthodontic procedures, and may affect patients' adherence to treatment. Pain after orthodontic procedures typically gets worse between visits, in contrast to other dental operations.

Advances in analgesic drugs as well as drug delivery systems have been instrumental in changing this scenario and transdermal drug delivery system (TDDS) deserves special mention in this regard. It is a non-invasive technique for distributing medication through the epidermis at a set rate in order to have a local or systemic effect.

There is ample evidence available to establish its efficacy and non-inferiority to oral medication in postoperative pain management in orthodontics. A cross over efficacy trial suggested that the transdermal patches provide just as effective analgesia as oral tablets for post-extraction analgesia, with the additional benefit of improved patient compliance (Bhaskar 2010).¹⁻³ Another randomized controlled double-blind study concluded that diclofenac transdermal patches were comparable to oral diclofenac in pain relief following dental extraction procedures (Krishnan 2015). Further, many recent quasi experimental studies have established the role of transdermal diclofenac patches in management of postoperative pain following orthodontic extractions and recommended their use in routine practice

(Talia S 2020; George A 2021).^{2,4}

Based on the available literature and also personal experience of the authors, it can be safely deduced transdermal analgesic patches should be the first choice for efficient pain control during orthodontic procedures. However, more thorough randomized controlled trials including a wider patient population are required to fully assess the potential of transdermal patches.

Conflict of Interest

None.

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