

Is It Possible to Achieve Profound Pulpal Anesthesia in Deep Carious Young Permanent Molars? A Review of the Literature

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Abstract

Creating favorable local anesthesia is an important step for enhancing patient's satisfaction and completion of the dental treatment. Anesthetizing teeth by solely using inferior alveolar nerve block is not effective enough to acquire adequate pulpal anesthesia in young permanent mandibular molars with deep caries, especially in teeth diagnosed with irreversible pulpitis. Promising supplemental injections are therefore essential to increase the success of pulpal anesthesia in these teeth. The aims of this literature review are 1) to provide useful information that dental practitioners should know regarding characteristics of young permanent teeth that can compromise success of pulpal anesthesia, 2) to present current literatures related to pulpal anesthesia in young permanent mandibular molars, and 3) to discuss practical practice in achieving pulpal anesthesia that clinicians may implement in their daily practice.

Keywords: inferior alveolar nerve block, local anesthesia, pediatric patients, pulpal anesthesia, supplement injection