Letter to the Editor

Tooth section technique for wisdom teeth

Dear Editor,

After having read the article by Genô and Vasconcelos on inferior alveolar nerve injury in relation to sectioning (and non-sectioning) of wisdom teeth, I would like to share my own experience of using the tooth section technique.

I have been trained to use bone removal alone and bone removal plus the tooth section technique to remove wisdom teeth. Over the years, I have opted for the latter technique as I think it is more predictable. I realized that patients with root apices close to, or in contact with, the inferior alveolar nerve could ‘feel’ every time I exerted pressure on it while extracting the wisdom tooth. I have no scientific explanation for this sensation, but think that it is genuine and is not caused by inadequate or failed local anaesthesia. These patients should not have had any sensation under local anaesthesia, but they complained of feeling ‘pain’ every time I tried to pull or elevate a wisdom tooth. What I suspect happens is the release of sodium-potassium through their channels when pressure is exerted on the inferior alveolar nerve, causing an influx of action potential.

This experience has prompted me to adopt the bone removal plus tooth section technique as it minimizes the possibility of exerting too much pressure when removing wisdom teeth. Merely removing bone and extracting or elevating a wisdom tooth afterwards causes it to hinge at its apex. Such an action pushes the tooth (especially a mesially impacted one) further towards the inferior alveolar nerve, and may cause this painful sensation. The sensation acts as a ‘warning’ that I am too close to the nerve.

I found that removing bone to the level of the cemento-enamel junction of the tooth is useful for access as well as enabling me to section the tooth into several segments (as opposed to the 2 segments adopted by Genô and Vasconcellos). Having more tooth segments reduces the tooth size and the possibility of ‘hinging’ the root over the inferior alveolar nerve when extraction/elevation is attempted. This is because the segments are taken out one by one, leaving the apical portion with plenty of space coronally for the root segment to be elevated outward. I have no statistics for the incidence of inferior alveolar injury that results from such a technique, but I suggest a prevalence of <1%.

I think that the research by Genô and Vasconcellos may favour the tooth section technique, especially if the wisdom tooth is sectioned into multiple rather than 2 segments.

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