

Vitapex-induced paresthesia in the jaw

Hye-Jin Sung*, Young-Kyung Kim, Sung-Kyo Kim

Department of Conservative Dentistry, Kyungpook National University, Daegu, Korea

I. Introduction

During root canal treatment, temporary dressing material may unintentionally extrude beyond the apex of the tooth, resulting in a series of complications including paresthesia of the inferior alveolar nerve. Such complications occur mainly by excess material causing direct pressure or by exerting a neurotoxic effect on the neurovascular bundle. In the present cases, a calcium hydroxide paste, Vitapex was extruded to the mandibular canal through the apex during endodontic treatment. The material caused changes in the surrounding bone and affected the inferior alveolar nerve. The aim of this report was to illustrate that periapical calcium hydroxide in excess amounts caused paresthesia when positioned close to the inferior alveolar nerve.

II. Case Presentation

< Case I >

1. Age/Sex: 52/F
2. Chief Complaint (C.C): Cold sensation & paresthesia in her right molar area after dental treatment.
3. Past Dental History (PDH): Referred by general dental practitioner to solve the persisting mandibular paresthesia
4. Present Illness (P.I): #47 was extracted after paresthesia
5. Impression: Paresthesia on the right mandibular area
6. Tx Plan: Surgical intervention and systemic medication

< Case II >

1. Age/Sex: 35/M
2. Chief Complaint (C.C): Burning sensation and partial numbness of the lower left side of the jaw
3. Past Dental History (PDH): Pain & numbness followed by endodontic treatment a few weeks ago Referred by general dental practitioner
4. Present Illness (P.I): temporary filling state on #47, Per(+), Pal(+)
5. Impression: Pre-RCT, Disturbance of sensory function after root canal treatment
6. Tx Plan: Systemic medication & endodontic treatment

< Case III >

1. Age/Sex: 48/F
2. Chief Complaint (C.C): burning sensation of the jaw on the right molar area
3. Past Dental History (PDH): Burning sensation followed by endodontic treatment a few days ago Referred by general dental practitioner
4. Present Illness (P.I): temporary filling state on #47, Per(+), Pal(+)
5. Impression: Pre-RCT, Disturbance of sensory function after root canal treatment
6. Tx Plan: Systemic medication & endodontic treatment

III. Conclusion

This report demonstrates the neurotoxic effects of calcium hydroxide paste, and it is advised that these materials should be applied with extreme caution during endodontic therapy.