

## Non-surgical treatment of dysesthesia of the inferior alveolar nerve following extrusion of Vitapex

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### I. Introduction

Inferior alveolar nerve injury following extrusion of intracanal medicaments beyond the root apex is a serious complication of root canal treatment. The resultant sensory response varies ranging from hypoesthesia, paresthesia, and dysesthesia. IASP (International Association for the Study of Pain) defines paresthesia as "an abnormal sensation, whether spontaneous or evoked" such as burning, tingling, pricking, itching, or formication, which is not unpleasant. Dysesthesia is different from paresthesia in that it implies unpleasantness.

In most cases of the nerve damage after dental treatment, surgical intervention is recommended and considered to be the treatment of choice. However, there are circumstances that require a non-surgical approach because of the patient's systemic condition or fear to the surgical operation.

This article is to present a case treated non-surgically by pharmacological approach, and to suggest it as an alternative treatment option.

### II. Case Presentation

1. Sex/age: F/21
2. Chief Complaint (C.C): Numbness of the lower lip, chin, and the gingiva of the right side of the mandible
3. History of C.C: Root canal treatment of the lower right second molar had been performed at the local clinic and accidentally the root canal filling material was extruded out of the root canal 3 weeks ago.
4. Present Illness (P.I):
  1. Per(-), mob(-), cold(-) on #37 with Vitapex extrusion into the mandibular canal
  2. Decreased sensitivity of the affected area to 10% on the pin test and 50% on the light touch test.
5. Impression:
  1. Pulpless tooth on #37
  2. Hypoesthesia (Rt. V3)
6. Tx Plan :
  1. Refer to the Pain clinic for eval. and tx. of hypoesthesia
  2. F/U & Root canal treatment of #37

### III. Conclusion

It is suggested that pharmacologic treatment using anticonvulsants and antidepressants is an alternative method to treat neurologic symptom after Vitapex extrusion during endodontic treatment when surgical operation cannot be performed due to some unavoidable circumstances.