



## Vertical root fracture in Premolars: Case Report

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### I. Introduction

Vertical root fracture is a longitudinally oriented fracture of the root, extending from the root canal to the periodontium. It can be caused by various factors including pin and post placement, impact injuries, root canal filling procedures, and seating of intracoronal restorations.

This case presentation is to present vertical root fracture of the premolars in various conditions.

### II. Case Presentation

	Case 1	Case 2	Case 3	Case 4
C. C.	Swelling on left mandibular gingiva	Pain on right mandibular molar area	Swelling and pain on right maxillary molar area	Pain on right maxillary premolar area
PDH	Endodontic tx. on ) #34 (8yrs ago	Endodontic tx. &Br. on #45-47 (2yrs ago)	Endodontic tx. &Cr. on #15 (5yrs ago)	
Present	#34		#15	#14
Illness	Per(-), Mob(+) Deep pocket on buccal gingival sulcus		Per(+), Mob(+) Buccal sinus tract Deep pocket on palatal gingival sulcus	Per(+), Mob(+) Buccal sinus tract
Tx. Plan	Exploratory surgery on #34	Follow up	Extraction of #15	Endodontic tx. and Exploratory surgery on #14

### III. Conclusion

A correct diagnosis of vertical root fracture is difficult and often confusing because it can resemble endodontic failures or periodontal disease. A quick decision to extract the tooth or root is necessary to stop rapid bone loss once the fracture communicates with the oral environment.