

## Modifying files for Root-Zx<sup>®</sup> to work right

Won-Cho Chung\*, Seung-Jong Lee

*Department of Conservative Dentistry, Yonsei University, Seoul, Korea*

---

### I. Introduction

The electronic apex locators (EALs) are necessary in root canal therapies nowadays. In this clinical case, there were some difficulties in determining working length for some-what reasons. This case is about a trial of finding the constriction point with a slight modification of files when EAL was unreliable.

### II. Case Presentation I

1. Sex/age: M/49
2. Chief Complaint (C.C): "Swelling on upper right second molar area."
3. Past dental history : none
4. Present Illness  
Per(-), mob(+), ept(-) on #17  
w/ about 6mm probing depth on both buccal, palatal sides  
w/ advanced dental caries
5. Impression:  
Pulp necrosis on #17  
with chronic apical abscess  
with advanced dental caries
6. Tx Plan: Conventional root canal treatment

### III. Conclusion

Electronic apex locator (EAL) is one of the most necessary tools in root canal therapies, especially in working length determination. However, it could be out of function in cases with perforations, wide canals, etc. Thus, a thorough understanding of EALs' working principles must be followed.