**Effect of Apical Limit of Instrumentation and Obturation on**

**Short Term Success of Root Canal Treatment: An in-Vivo Study**

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## ABSTRACT

**OBJECTIVE:** To determine the effect of two apical limit of instrumentation and obturation in root canal treatment on short term success of root canal treatment.

**STUDY DESIGN:** Comparative Randomized Clinical Trial

**PLACE AND DURATION:** Department of Operative Dentistry Isra Dental College from 19th Feb 2014 to 18th Feb 2016

**METHODOLOGY:** Totalhundred patients of either gender who were diagnosed for pulp necrosis of single rooted teeth and required root canal treatment were selected. Hundred patients were divided into two groups by randomization. In Group-A, instrumentation and obturations were done upto apical constriction and in Group-B upto apical terminus. The patients were recalled at 4, 8 and 12 months follow up after root canal treatment to assess the short term success of the treatment.

**RESULTS:** Group A at follow-ups showed that 32% cases reported as complete success, 68% partially successful, 0% case failure at 4 months, 36% as complete success, 60% partially successful, 2% failure at 8 months and 36% as complete success, 60% partially successful, 2% failure at 12 months. Similarly, Group B at follow-up showed that 40% reported as complete success, 60% partially successful, 0% failure at 4 months, 72% as complete success, 24% partially successful, 4% failure at 8 months and 88% as complete success, 6% partially successful and 2% failure at 12 months. There was a non-significant difference (P= 0.53) of short term success between Group A and Group B at 4th month but found significant difference (P= 0.001 and P= 0.018 P) at 8th and 12th months.

**CONCLUSION**:There was a no difference in short term outcome at 4th month but there was difference in outcome at 8th and 12th months follow ups between the two apical limits.

**KEYWORDS:** Endodontics, Obturation, Apical constriction, Apical terminus, Root canal treatment outcome

**HOW TO CITE THIS:**

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