

Factors Affecting the Success of Endodontic Treatment during a two-years Recall

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Objective To study the factors affecting the success of endodontic treatment. **Material and method** Data was collected from endodontic records of 1,104 patients who received the root canal treatment from the fifth and sixth year dental students during 1995-2001 with periodical recalls at 6 months, 1 year and 2 years. The treatment outcomes were evaluated from clinical symptoms and radiographic examination. Chi-square statistic was used to find the relationship between the factors; culture result, the presence of periapical lesion, vitality of pulp, level of root filling, position of tooth, number of master apical file and number of visiting, and the success of the treatment. Binary logistic regression was used to determine the odds ratio and to establish the predictive model for the treatment outcome. **Result** For each period of the recall, the presence of periapical lesion, the vitality of pulp and the position of tooth were statistically significant influence on success of endodontic treatment ($p < 0.05$). The relative risk in the presence of periapical lesion and root canal treatment of premolar. The correct prediction of this model was 75.5%, 63.6% and 59.4% for 6 months 1 year and 2 years periods, respectively. **Conclusion** The major factors affecting the success of endodontic treatment in undergraduate clinic appear to be the presence of periapical lesion, vitality of the pulp and the position of tooth.

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