Abstract

Introduction: Lateral canals are part of the root canal system and may be related to periodontal-endodontic diseases. The filling techniques that employ thermoplasticized gutta-percha have demonstrated better results in filling lateral canals. Objective: The aim of this study was to evaluate, through digital radiographs, three techniques of root canal obturation (Lateral Condensation, Obtura II System, Tagger’s Hybrid) regarding to the ability of filling artificial lateral canals. Material and methods: 30 extracted human lower premolars were used in this study. The crowns were removed and artificial laterals canals were prepared on the coronal, medium and apical thirds of the roots by using a reamer made of a K 10 file. The root canals were instrumented and obturated by the following techniques: Lateral Condensation, Obtura II System, and Tagger’s Hybrid. The teeth were radiographed with IDA digital radiograph system and the filling of the lateral canals was evaluated by scores for further statistical analysis. Results: No significant difference was found in the filling of lateral canals between Lateral Condensation and Obtura II, but a significant difference was found among these two and Tagger’s Hybrid technique. Conclusion: Tagger’s Hybrid technique promoted the highest numbers of obturated lateral canals. In the three groups, the root thirds presenting greater number of filled lateral canals were coronal and middle, regardless of the obturation technique employed.

Keywords

Endodontics, gutta-percha, root canal obturation.