Long-term Observation of Marked Overfilling in Root Canal Therapy: 
A Report of Three Cases

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Abstract: In endodontic therapy, overfilling of gutta-percha point in root canals sometimes occurs due to wrong measurement of working length and overextension of gutta-percha point. Although a slight overfilling to periapical tissues (within 2 mm past the apical foramen) is tolerable, marked overfilling should be checked by postoperative recheck radiographs and/or clinical symptoms. In this report, three clinical cases of marked overfilling are described and long-term radiographic observation (6-14 years) was continued. Overfilled gutta-percha points on the radiographic observation were 3.0 (case 1), 2.5 (case 2), and 3.5 mm (case 3) in the left maxillary molar of a 47-year-old woman, in the left mandibular molar of a 45-year-old woman, and in the left mandibular premolar of a 39-year-old woman, respectively. In case 1, an overfilled point was cut after 1.5 years and disappeared after 3.5 years, and then apical radiolucency was improved after 6 years. In case 2, overfilled points started to minimize after 3 years and disappeared after 14 years. In case 3, an overfilled point was minimized after 13 years accompanied with improvement of apical lesion. None of the cases showed any significant clinical symptoms after the overfilling. These observations are interesting to longitudinally evaluate the disappearance of overfilled gutta-percha and the improvement of apical lesion.

Key words: Endodontic therapy, Overfilling, Radiographic diagnosis