



CORRESPONDENCE

Nonsurgical endodontic treatment of a large cyst-like periradicular lesion

Periradicular lesions can be of endodontic or non-endodontic origin and may involve one or multiple adjacent teeth. Most periradicular lesions of endodontic origin have been classified as dental granuloma, radicular cyst, or abscess.¹ Periradicular cysts are inflammatory jaw cysts affecting teeth with infected and necrotic pulp.

A 49-year-old male was referred for treatment of swelling at the left mandibular region. A drain had been placed in that region by a general dentist 15 days previously. Radiographic examination (Fig. 1A) showed a well-circumscribed radiolucent lesion located above the mandibular canal and extending from the apices of teeth 34 to 38. Besides, Tooth 37 had an inadequate canal filling. At the same visit, drain and bridge restoration was removed.

Root canal treatment was initiated on Tooth 37. The access cavity was prepared. A clear, straw-colored fluid was exuded from the canals. On microscopic examination of the fluid sample, the presence of cholesterol crystals was determined. Cleaning and shaping of the canals were achieved using ProTaper rotary files. A calcium hydroxide dressing was applied after active drainage ceased. The canals were then filled and restored. Bridge restoration was adapted again and a panoramic radiograph was taken (Fig. 1B). The next two radiographs at 2 and 3 years revealed further bony healing (Fig. 1C and D). The 3-year radiograph showed that the radiolucent area was absent and that trabecular bone was forming. Only a small radiolucent area in bone was observed where the occurring scar

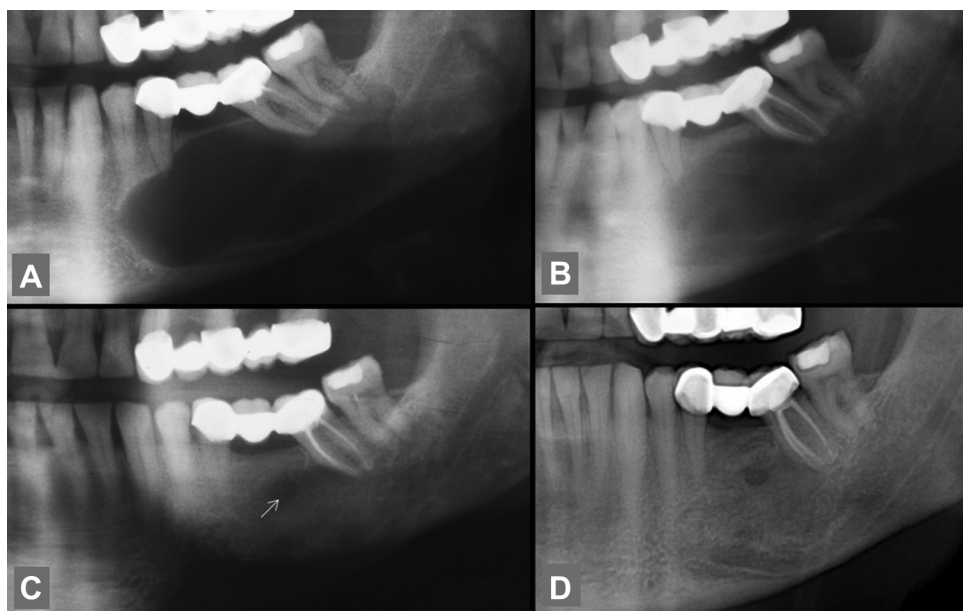


Figure 1 (A) Preoperative radiograph showing a large cyst-like periradicular lesion in the left mandibular region; (B) radiograph after root canal filling and restoration; (C) 2-year follow-up, arrow: drain scar; (D) 3-year follow-up.

was positioned after implementation of the drain (Fig. 1C and D). Besides, caries was determined in Teeth 37 and 38. The patient was informed about teeth treatment.

To date, the importance of lesion size on healing has been researched in several studies.^{2,3} According to Matsumoto et al,² large size lesions are not as good as small lesions. In contrast, Sjogren et al³ found no significant differences in healing frequency between the different sizes of lesions. In the present case, the periradicular lesion was approximately 28.84 × 70.33 mm in maximum diameter. It is a very large lesion according to the literature. We easily treated this lesion using nonsurgical methods.

In a clinical study, Caliskan⁴ reported 42 nonsurgically treated teeth with large cyst-like lesions. Caliskan reported that 73.8% of all cases completely healed within 2 years. In the present case, we observed the initiation of periapical healing at 3 months after treatment and complete healing after 3 years.

Conflicts of interest

The authors declare that there are no conflicts of interest that could influence their work.

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