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Case Report

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Beyond the Scalpel: Conservative Resolution of a Radicular Cyst

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Abstract

Radicular cysts are one of the most common types of odontogenic cysts and are typically associated with chronic periapical infections. There is increasing interest in non-surgical alternatives that provide similar outcomes while preserving the tooth structure. Mineral Trioxide Aggregate (MTA), a practical option for non-surgical treatment of periapical lesions, including radicular cysts. This case report discusses the successful non-surgical management of a radicular cyst in a 17-year-old male patient. The patient presented with a history of persistent pain and swelling in the maxillary anterior region. Clinical and radiographic examination revealed a well-defined radiolucent lesion at the apex of a non-vital tooth, suggestive of a radicular cyst. After initial root canal therapy, the infected tissue was carefully debrided, and the cystic cavity was filled with MTA to promote healing. The biocompatible nature of MTA, combined with its ability to form a tight seal, was believed to have contributed to the resolution of the cyst without the need for surgical intervention. Follow-up radiographs taken at 6 months post-treatment demonstrated significant healing of the periapical region. The patient remained asymptomatic, with no clinical complications. These findings suggest that MTA can be an effective and viable option for non-surgical treatment of radicular cysts. In conclusion, using MTA in the non-surgical management of radicular cysts may offer a promising approach to preserving the natural dentition while ensuring satisfactory clinical outcomes. Further long-term studies and clinical trials are needed to better understand the efficacy and limitations of MTA in the treatment of periapical cystic lesions.

Keywords: conservative, cysts, radicular, resolution, scalpel