

## Case Presentation

The patient, M.I., a 47-year-old male, presented to the clinic complaining of pain in the area of tooth 4.5, primarily during mastication.

### Clinical Examination

- **Extraoral:** No pathological changes observed.
- **Intraoral:** In quadrant 4, a metal–ceramic prosthetic restoration was noted, supported by abutment teeth 4.5 and 4.8, reportedly placed approximately 5 years ago.
- **Clinical Tests:** Axial percussion and vestibular palpation were positive on tooth 4.5.

### Radiographic Examination

The periapical radiograph revealed an apical radiolucency of endodontic origin. Tooth 4.5 showed evidence of a previous, incomplete endodontic treatment.

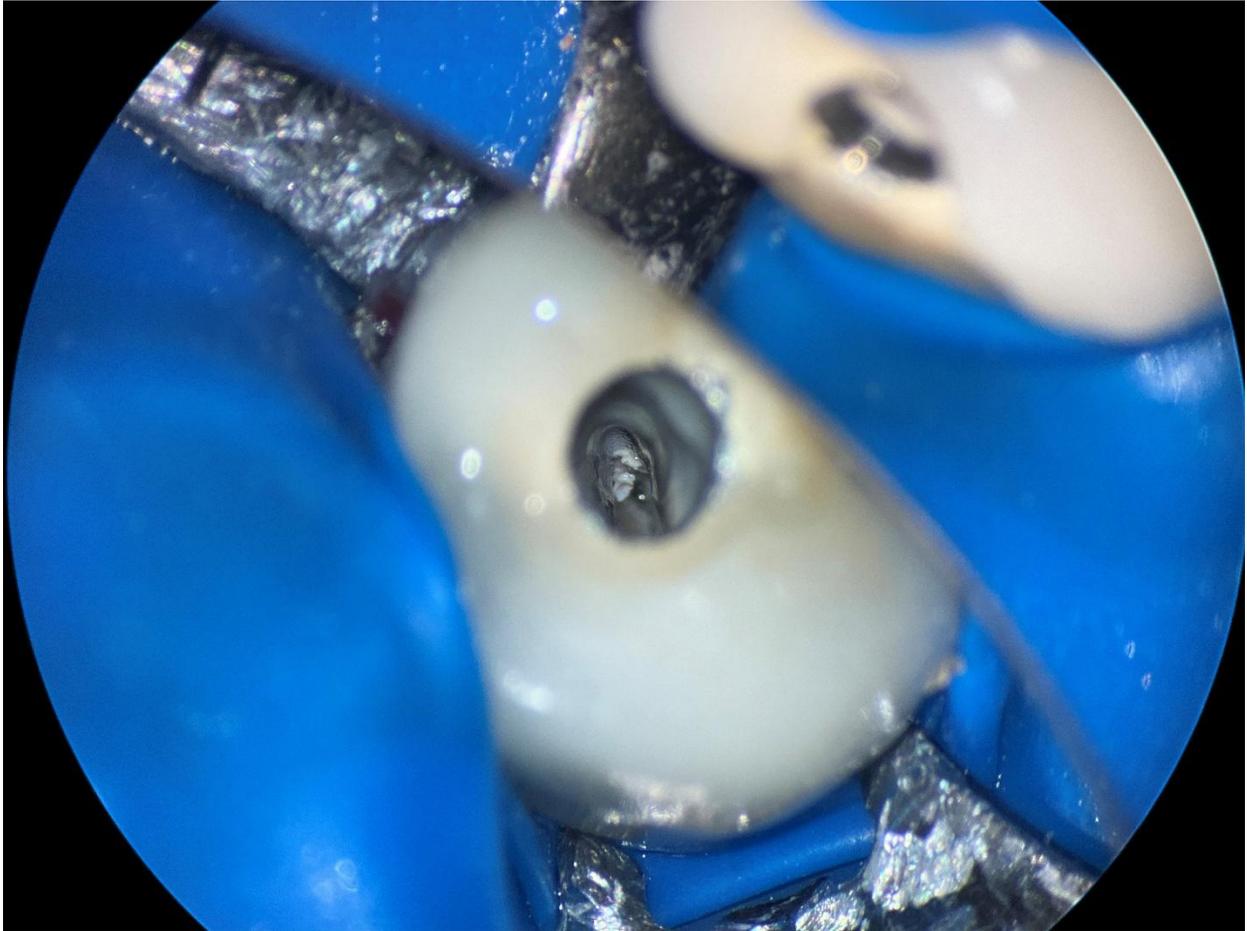
### Conclusion

The clinical and radiographic findings indicate an apical inflammatory process associated with insufficient prior root canal therapy, necessitating endodontic retreatmen



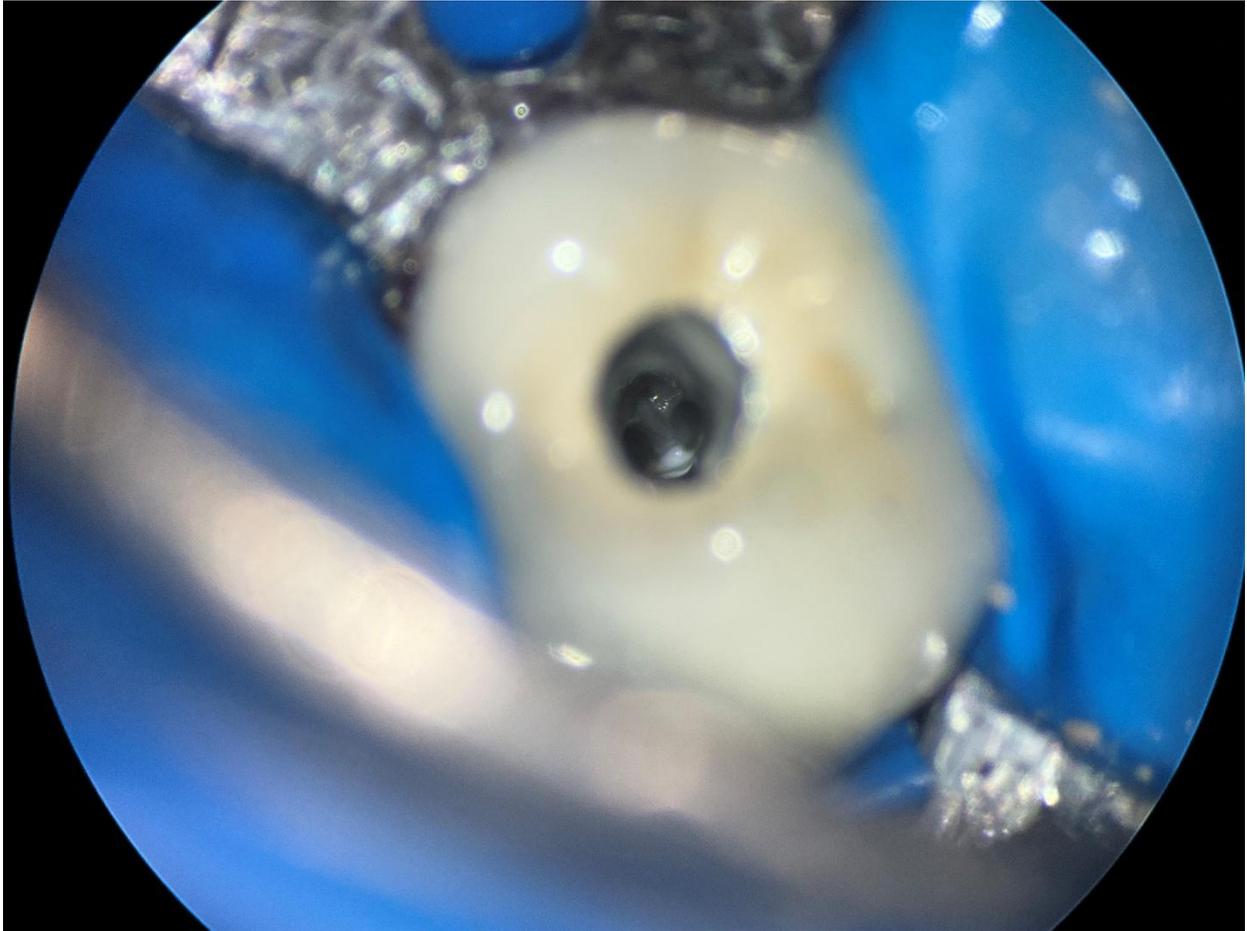
Figure 1

The endodontic retreatment was completed in a single visit. Following the administration of local anesthesia, rubber dam isolation was applied. Endodontic access was performed through the crown of tooth 4.5, as the patient declined replacement of the existing prosthetic restoration.



*Figure 2 Initial intraoperative aspect. Traces of gutta-percha can be observed.*

Mechanical instrumentation of the root canal system was carried out using Rotate WDV rotary file system. Irrigation was performed with 5.25% sodium hypochlorite and EDTA, both solutions being ultrasonically activated with the Ultra-X device (Eightteeth) to enhance debridement and cleaning of the complex endodontic system.



*Figure 3 Intraoperative photograph taken after instrumentation of the vestibular canals.*

The root canal filling was completed using the warm vertical compaction technique with Ah plus sealer and guttapercha.

Coronal restoration was done using composite resin



*Figure 4*

After completing the endodontic treatment, a post-treatment radiograph was taken in the clinic. The complex anatomy of the treated tooth can be observed.



*Figure 5*

The patient returned for follow-up after 8 months, coinciding with the need for another endodontic procedure. Radiographic evaluation at this appointment allowed assessment of the periapical lesion's progression, revealing favorable healing.



*Figure 6*