

APPLICATIONS OF BIOCERAMIC MATERIALS IN ENDODONTICS: ATYPICAL MORPHOLOGIES





INTRODUCTION

Morphological variations occur due to abnormal interaction of tissues during the phases of dental development. According to the period that this alteration occurs, the tooth could show an anomalous, ectopic development and/or eruption or some anatomical variation. Various anatomical teeth variations have been reported that can be of number, shape, size and structure. *Dens in dente*, taurodontism, microdontia, fusion or gemination are examples. These can be due to genetic, pathological and idiopathic factors.

CASE REPORT

A 23-year-old female patient who attended the UADY



Endodontic Clinic due to tooth pain in tooth No. 9. Radiographically, an atypical morphology was observed in the root canal, in addition to necrosis and sinus tract. CBCT showed the formation of a uniform dentin bridge at the level of the middle third of the root canal. The patient was anesthetized, absolute isolation was placed and the access was made, later the dentin bridge was crossed with an ED7 ultrasound tip. It was cleaned and Ca(OH)₂ was placed. At the second appointment, the Ca(OH)₂ was removed, irrigated with 5.25% NaOCl, and the two root chambers were filled with Bioceramic material (BiodentineTM). Finally, the resin restoration was placed. After a year, the patient is asymptomatic, sinus tract is absent and radiographically the periapical lesion is decreasing. The prognosis remains reserved.

DISCUSSION

Currently there is little or no information in the literature

CBCT sagittal view







about this atypical formation. Barzuna-Pacheco (2013), reported a clinical case similar to the present one and classified it as a *Dens in dente* due to invagination of the enamel organ, a characteristic that was not observed in this case. Therefore, it was not possible to classify it in any of the categories mentioned above. It is not ruled out that the cause of this anomaly was trauma. The complex anatomy of this dental anomaly makes these case a difficult challenge to treat that puts the knowledge and skills of the operator to the test. The use of bioceramics is ideal for filling these cases.

CONCLUSION

The use of CBCT and bioceramics increased the chances of successful treatment of this atypical canal. This is an example where new technologies and materials, properly applied, result in direct benefits to the population. CBCT cervical third

Access



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