

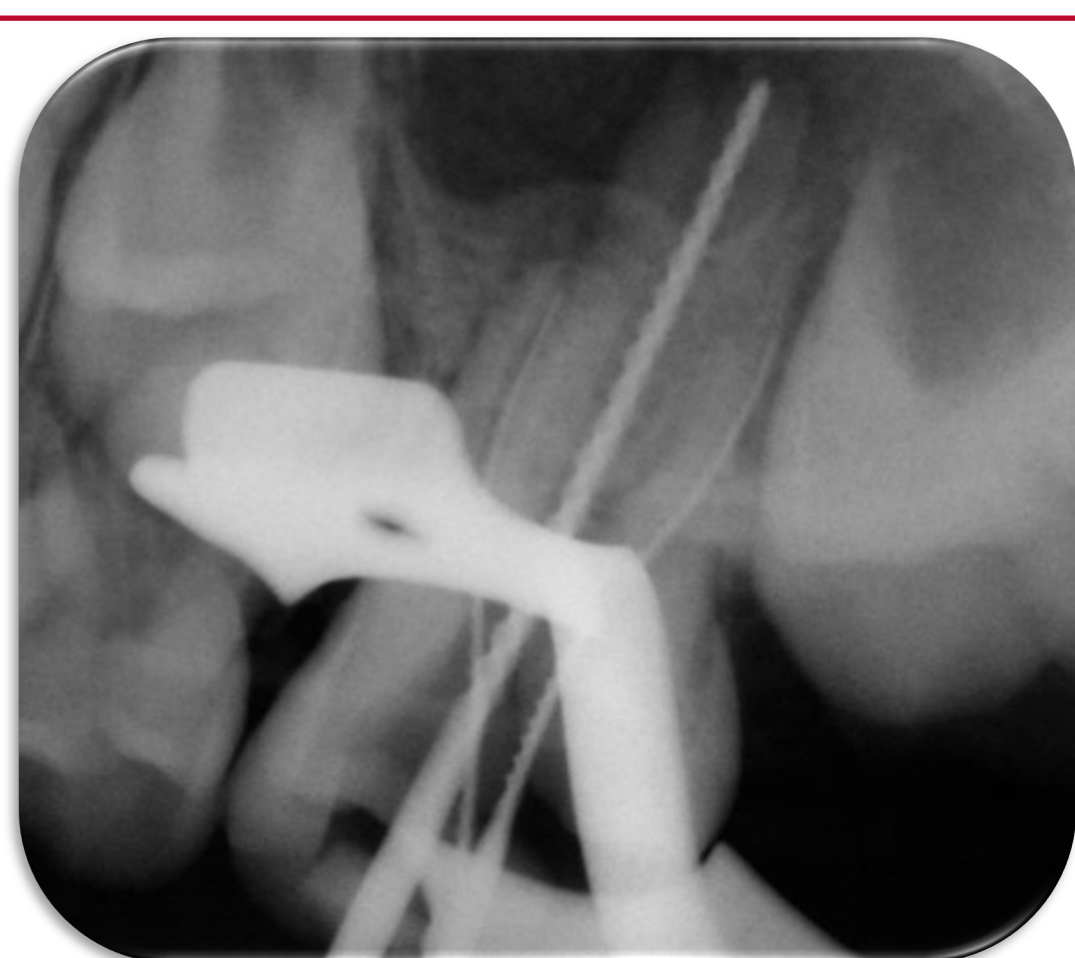
INTRODUCTION

Different etiological factors can cause pulp conditions in teeth with immature foramen making pulp necrosis the root development ceases and apical closure cannot be achieved, so it does not give an anatomic barrier. This situation becomes an endodontic challenge, due to the apical diameter and the divergence of the walls, which makes it difficult to clean, disinfect, shape and fill the root canal. Currently there are new bioceramic materials that simplify clinical management, such is the case of AVALON® NeoPUTTY that is easy handling due to its consistency during its working and setting time.

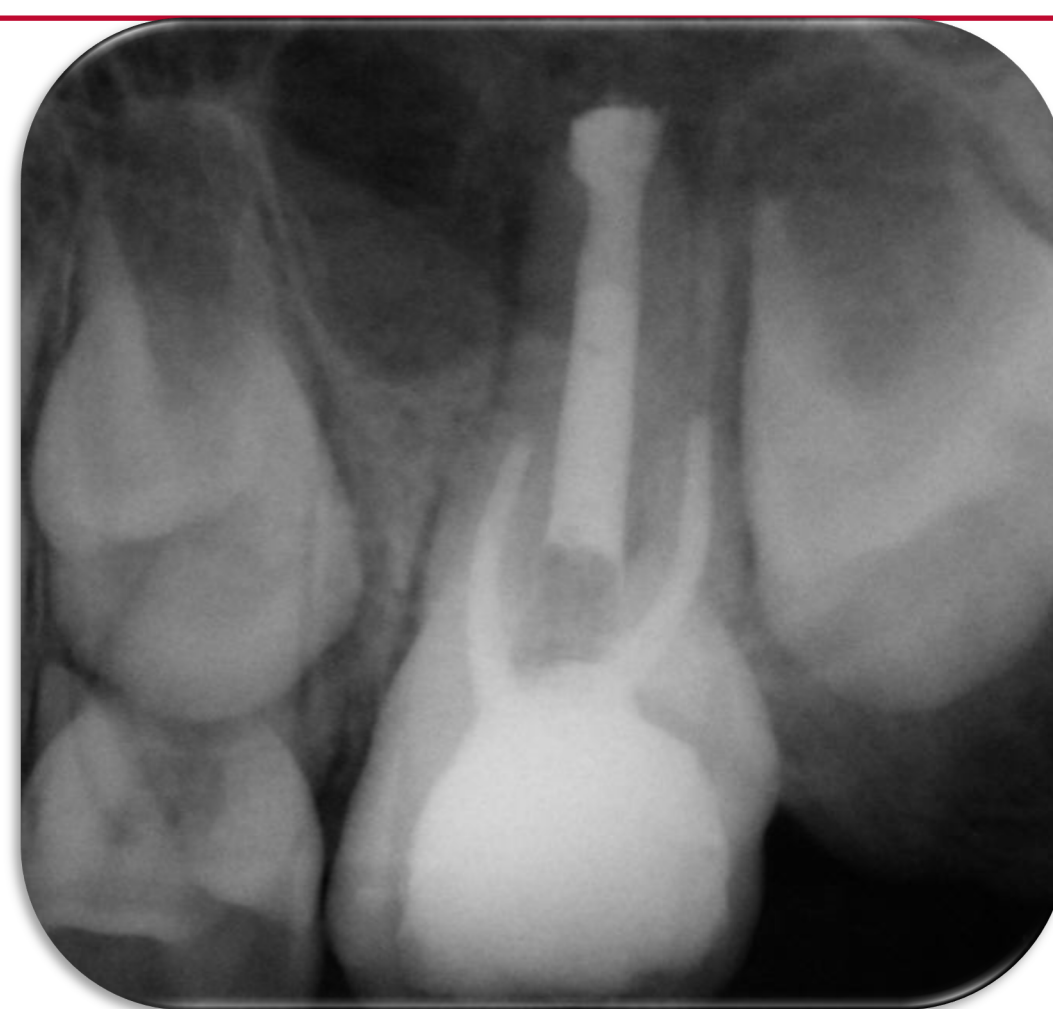
CASE REPORT

A 7-years-old male patient with no systemic history of importance to his general health attends for an extensive caries in the upper left first molar. After clinical and radiographic tests, the diagnosis was pulp necrosis and symptomatic apical periodontitis, presenting open apex Patterson stage 2 in the palatal root. Due to the characteristics present in the case, it was decided to carry out the conventional root canal treatment in the buccal roots and perform an apical plug in the palatal root. Under infiltrative anesthesia, chamber opening was performed, the roots were irrigated with 5.25% sodium hypochlorite and 17% EDTA, and then with saline solution for intermediate and final cleaning. Calcium hydroxide was left for 15 days. At the second appointment, the buccal canals were filled with the lateral condensation technique and the apical plug was made in the palatal root with AVALON® NeoPUTTY and thermoplasticized gutta-percha

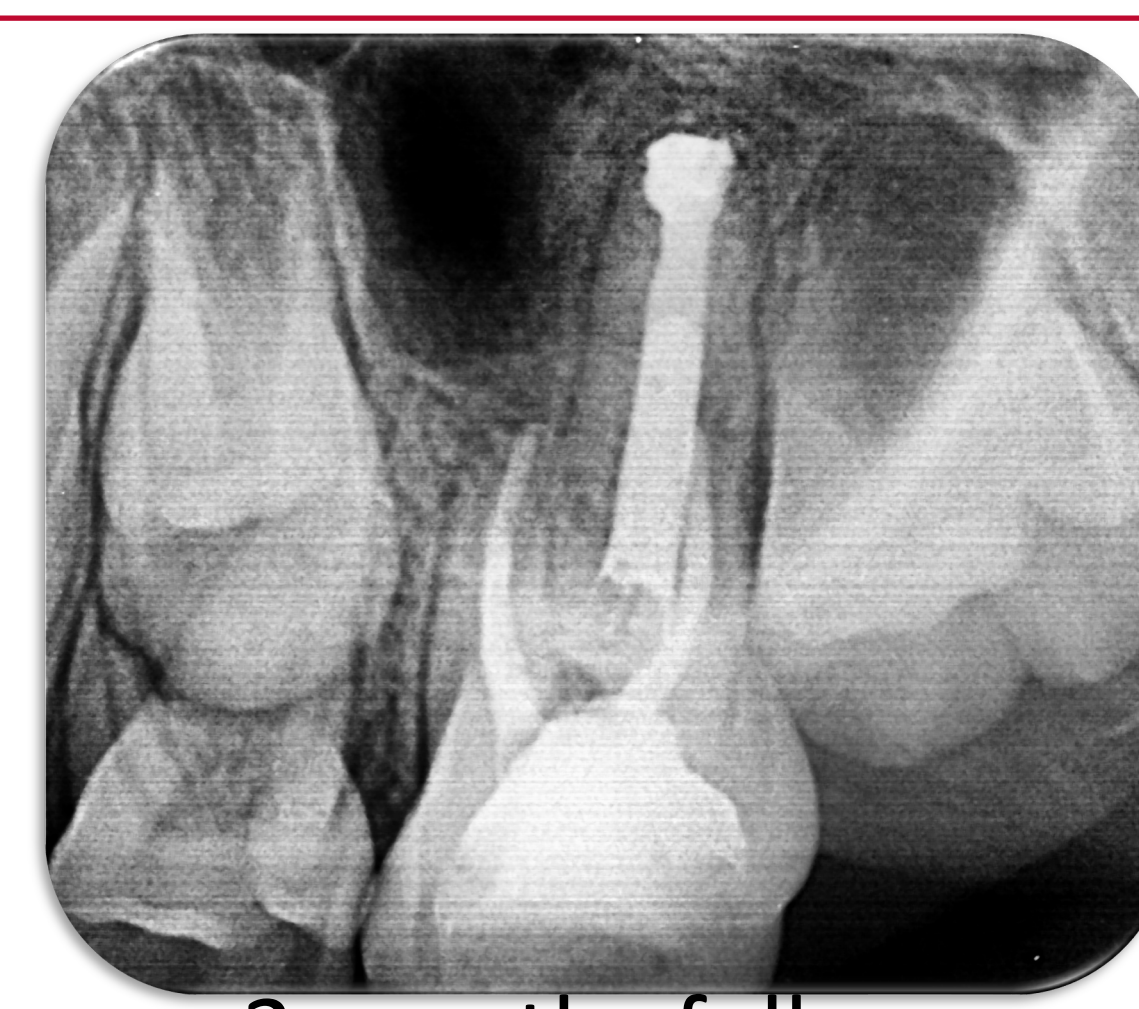
RADIOGRAPHICS



Length Rx



Final Rx



3 months follow up

DISCUSSION

In recent years we have witnessed the boom in the creation and implementation of bioceramic materials. They are currently being further developed in order to improve adhesion characteristics, working times, handling, efficiency and long-term success. No previous studies using this material in the management of open apices were found.

CONCLUSION

The success of the endodontic treatment was evaluated using the Strindberg criteria, at the 3-month follow-up appointment it was level 1. The AVALON® NeoPUTTY presented promising results in terms of the treatment of immature apices, with better handling and working time.

REFERENCES

- 1.- Plascencia H, Díaz M, Gascón G, Garduño S, Guerrero-Bobadilla C, De Alba SM, et al. Management of permanent teeth with necrotic pulps and open apices according to the stage of root development. J Clin Exp Dent. 2017;9(11):e1329–39.
- 2.- Patterson SS. Endodontic management of the young permanent tooth. J. Den. Children. 1958; 25:215
- 3.- Trope M. Treatment of the Immature Tooth with a Non-Vital Pulp and Apical Periodontitis. Dent Clin North Am [Internet]. 2010;54(2):313–24. Disponible en: <http://dx.doi.org/10.1016/j.cden.2009.12.006>
- 4.- winter. Colleagues for. Am Assoc Endod. 2013;2–5.
- 5.- Hench LL. Bioceramics: From Concept to Clinic. J Am Ceram Soc. 1991;74(7):1487–510.
- 6.- Sol Q., Meng M., Corcel J., J. Sidowc E., Bergeron B., Niu L., Zhi Ma J., Tay R., Maniobrabilidad y biocompatibilidad de masillas endodónticas a base de silicato tricálcico. Journal Dentistry. 2021; 104.