

Root canal obliteration : a series of clinical cases

Joana Paiva Alves^{1*}, Rui Madureira²
¹DDS and MSc, ²PhD in Dentistry



Introduction and objectives:

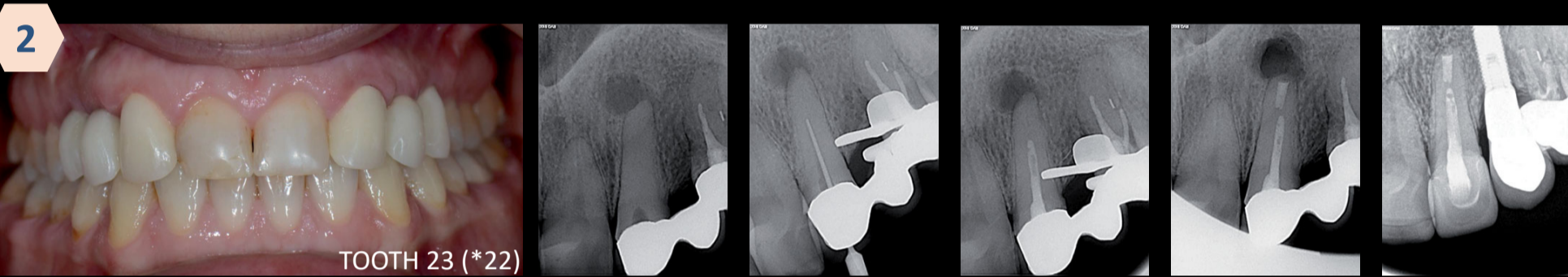
The etiology of root canals obliteration is usually traumatic, due to direct or orthodontic trauma. Its evolution is slow as it may only be recognizable 1 year after the trauma and it may take 4 to 10 years for the canal to be fully obliterated. The treatment for these conditions can be challenging and may result in complications such as inability to locate the root canal and perforations. It is mostly asymptomatic but yellowish ivory color changes or other infectious problems can be present.⁽¹⁻⁴⁾ The purpose of this paper is to describe clinical cases of root canal obliteration with distinct therapeutical approaches.

Clinical Case 1 - Color change, history of trauma several years ago. Female referred patient, 20 years old



Case 1 (tooth 21)- Asymptomatic, RCT and external and internal bleaching were performed.

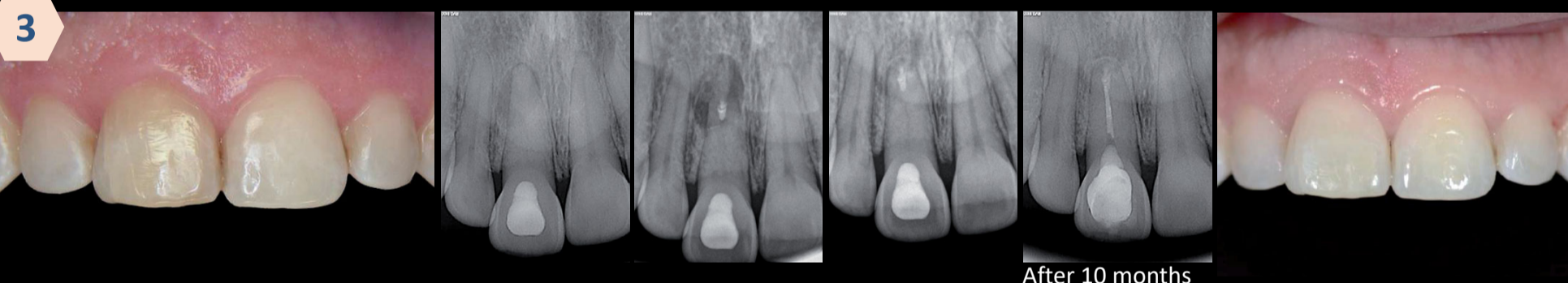
Clinical Cases 2 and 3 - Bone Lesions, old trauma and poor aesthetics. Case 2 Female patient, 42 years old | Case 3 Female patient, 45 years old



Case 2 (tooth 23) - Asymptomatic. Lateral's agenesis. The patient's expectation was to rehabilitate the aesthetic area. The TER was attempted up to 2/3 of the root of the tooth 23 without finding the root canal. Then it was decided to obturate with heated gutta and perform apical surgery. Afterwards, implants and lithium disilicate ceramics crowns were placed from 15 to 25, being 11 and 21 veneers.

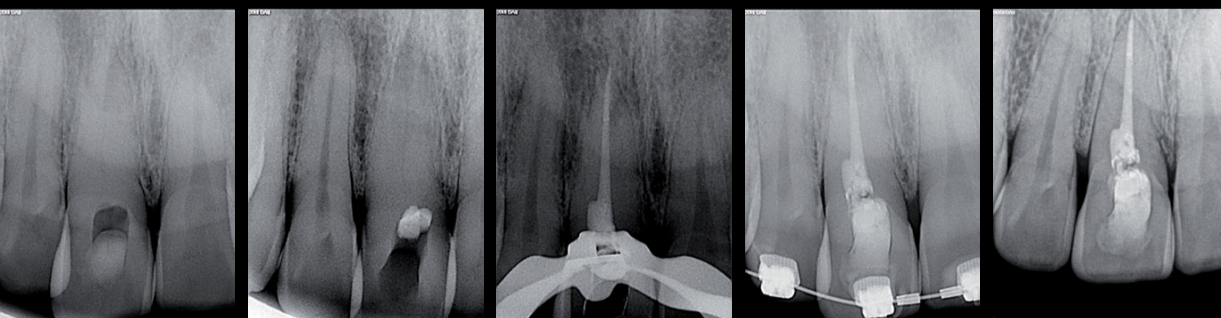
Case 3 (tooth 11) - Asymptomatic. Patient had previous orthodontic treatment and asked for rehabilitation of the aesthetic zone. Implants with ceramic crowns were placed in 15, 14, 25, 26 and 27, and in 36 and 37 crowns on teeth.

On tooth 11, we opted for Apical surgery at the same time as the implants 14 and 15 were placed. After a failed attempt of external bleaching, we performed RCT and internal bleaching.



After 10 months

Clinical Case 4 - Color change and vestibular perforation of tooth 11. Referred patient, male gender 29 years old (beginning in 2013)



Case 4 – Referred patient with root perforation at the level of the epithelial insertion after attempted RCT.
2013 - The perforation was repaired with MTA followed by RCT 8 days later. The supra-gingival grey color was then disguised with composite.
2013-18 - During the Orthodontic treatment, 2-3 mm of extrusion was performed to bring the perforation to coronal.
2018- Small gingivectomy and ceramic crown in lithium disilicate.

Conclusion and clinical implications: We presented some situations of root canal obliteration, highlighting alternative approaches to these cases. They should be performed by an experienced clinician with clinical microscope, given their complexity. Even so, traditional RCT can not be achieved in all cases, requiring the use of complementary endodontic surgery. Complications, such as perforations, etc., happen more often to those who have less experience. Internal bleaching should only be performed after RCT, and the external bleaching does not work in most cases. Ceramics veneers or crowns may be indicated in some situations. If well diagnosed and approached, these cases are predictable and have an excellent prognosis.

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