



## The root canal treatment of mandibular molar: A case report.

### Introduction

The endodontic treatment of teeth with chronic apical periodontitis and root perforation requires great care in their management. The aim of this case report was to observe, through a clinical case, the treatment of mandibular molar that presented perforation in the furcation and was treated with manual instrumentation with K and flexofile files and root canal filling by the technique of lateral and vertical condensation using a MTA Fillapex sealer<sup>1,2,3</sup>.

### Case Report

A 34-year-old female patient attended the dental clinic of FACIT (Araguaína, Tocantins, Brazil) with an indication for endodontic treatment on tooth 36 and reporting having been seen at a Public Health Service and referred for treatment. A diagnosis periapical radiograph was taken on the tooth (Figure 1), then clinical tests with palpation and percussion were performed with a mild positive response, and on the sensibility cold test, the response was negative. The probable clinical diagnosis was chronic periapical abscess. In addition, the radiograph showed a perforation in the root furcation that probably occurred in the previous endodontic access.

*Figure 01. Diagnostic periapical radiograph*



The treatment was chosen in a single session. After anesthesia and absolute isolation, surgery to access the pulp chamber was performed, visually confirming the perforation, followed by the disinfectant penetration with abundant 2.5% sodium hypochlorite irrigation. Then the root canal was prepared with K and Flexofile hand files until the #40 in the apical third in the mesial canals and #45 in the distal canal. After root canal preparation, MTA was applied in the perforation with the aid of the MTA applicator and the patient was referred for tooth restoration at the clinic. After 70 days, the patient returned to the clinic for the first follow-up, he reported the absence of signs and symptoms, and a new periapical radiograph was taken that showed a complete repair of the periapical lesion and the absence of any alteration in the furcation area evidencing the success of the endodontic treatment (Figure 2).

**Figure 02. Periapical radiograph after 70 days of follow-up.**



### **Final considerations**

The present case report showed that complications during the root canal treatment as periapical lesions and furcation perforation can be overcome with the use of appropriate technical resources associated with adequate materials as the MTA and MTA Fillapex.

### **References**

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3. GOMES FILHO, J E; Rat tissue reaction to MTA-Fillapex Dental Traumatology 2011; doi: 10.1111/j.1600-9657.2011.