Successful Endodontic Treatment of Maxillary Lateral Incisor two canal

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Abstract

A 21 year old female referred with a symptomatic maxillary left lateral incisor which previous root canal treatment radiographs from different angulations had revealed a second cabal which has been missed during previous treatment. The extra canal was located and obdurate in the proper way.

Introduction

Occurrence of multiple canals in maxillary lateral incisors is extremely rare. Previous studies showed that 100 of maxillary incisors have single canal. Anatomical variations in maxillary incisors are considered to be the result of developmental anomalies. Gemination is anomaly in which the tooth germ divides during development of the tooth resulting in the formation of a double crown with a single root. In case of fusion, the crowns of two separate tooth buds fuse during development resulting in a bifid crown with two root canals in one root. Concrescence, a rare condition occurs when the roots of two separate teeth fuse following crown development. The incidence of these anomalies which result in either a single larger crown or a fused or joined crown is highest in the anterior deciduous dentition' and are rarely seen in the anterior teeth of the permanent dentition).

Case Report

A 21 year old female referred to the Conservative Department at the Baghdad Dental School for endodontic consultation. Her chief complaint was pain and swelling in the maxillary left region. Pain was described as mild and continuous. Clinical examination revealed pain on percussion in the maxillary left lateral incisor which, was endodontically treated by an undergraduate student 3 weeks ago. The labial cortical plate was slightly tender to palpation. No response was elicited from either hot or cold application. All adjacent teeth were vital. Taking radiographs from different angulations revealed a relatively well circumscribed radiolucent area associated with the apex of the maxillary left lateral incisor and the presence of a second canal which had been left unfilled. Under local anesthesia and after a rubber dam was placed, access opening was made. The pervious root canal filling was removed, the pulp in the second canal was extirpated using a barbed broach and the working lengths were determined (Fig.2). The canals were irrigated with sodium hypochlorite and dried using a paper point. Camphorated para mono chloroprene (C.M.C.P) medication was used as an intracranial medication, and sealed with zinc oxide-eugenol temporary filling. At the second appointment the patient

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reported that there had been an improvement in the symptoms. Instrumentation was done up to"60 file in series using reaming and filing action. The canals were obturated by lateral condensation of master gutta-percha with auxiliary points (Fig.3) at the follow up evaluation 4 weeks after treatment the patient reported no complaints.

Discussion

The main objective of endodontic therapy is the thorough mechanical and chemical cleansing of entire pulp cavity and its complete obscuration with an inert filling material. 0ne of the main reasons for endodontic failure is failure to find aid obdurate the whole root (a) canals system. This report discusses a case of maxillary left lateral incisor in which an extra palatal canal was located instrumented and obdurate.

It may be a mistake to look for extra canals and roots only on certain teeth and to ignore their possible prescience on others. Radiograph from different angles prior to beginning the access opening should be done.

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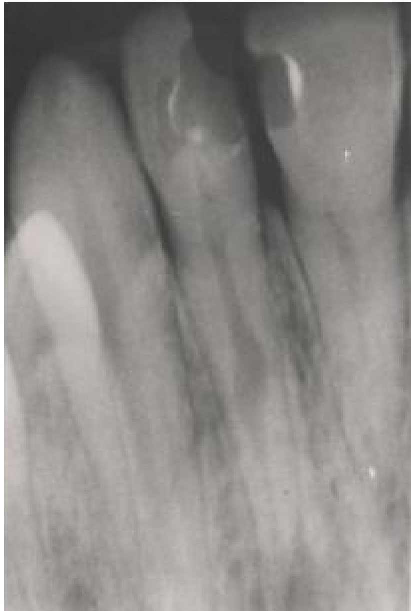

Fig. Preoperative radiograph

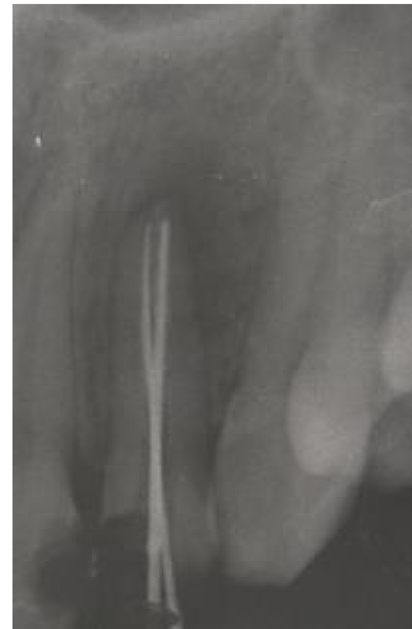

Fig. 2 Working length determination

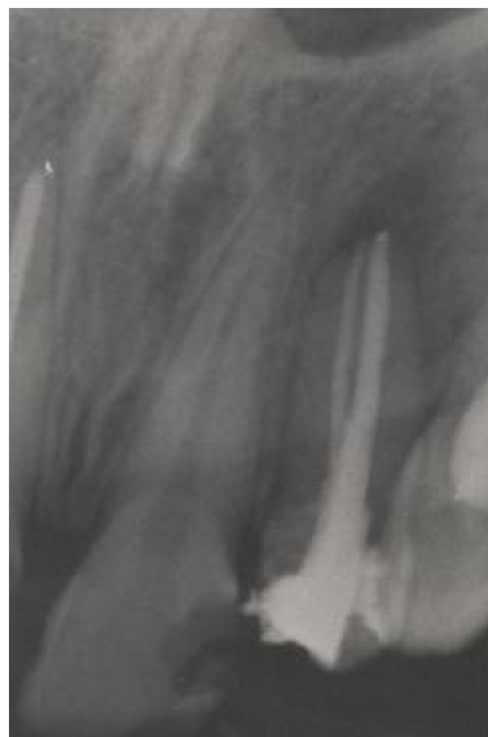

Fig. 3 Complete obturatrion of root canal system

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