



Conservative Management of Pink Tooth- A Case Report

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ABSTRACT.

Internal resorption is a complex pathologic phenomenon with a probable etiology of trauma. It is clinically diagnosed only when the tooth turns pink and otherwise it remains asymptomatic. The article presents a case report of internal resorption (pink tooth) detected early and managed conservatively.

Keywords: Pink tooth, internal resorption, conservative management

I. INTRODUCTION

Being in the pink of health is indicative of excellent health and fitness but a pink tooth is anything but healthy. Traditionally, the pink tooth has been thought pathognomonic of internal root resorption. The pink color is due to the granulation tissue in the coronal dentin undermining the crown enamel.¹Based on histochemical similarity, Swedish researchers surmised that “Internal resorption is engineered by clastic cells similar or identical to osteoclast.”² For internal resorption to be active, at least part of the pulp must be vital. The coronal portion of the pulp is often necrotic, whereas the apical pulp that includes the internal resorptive defect can remain vital, therefore, a negative sensitivity test result does not rule out active internal resorption.¹ We present a case report of conservative clinical management of a case of pink tooth.

II. CASE REPORT

An 18 year old female patient reported to Department of Conservative Dentistry and Endodontics with a chief complaint of fractured anterior teeth with pinkish discoloration. History revealed trauma to upper anterior teeth 6 years previously.

On examination, 21 was discolored (pinkish in color) with Ellis Class IV fracture and 11 with Ellis Class II fracture with no discoloration (Fig 1). Medical history was not contributory. Both 11 & 21 were non-tender to percussion. The electric pulp vitality test showed 11 & 21 to be non-vital. On radiographic examination, initial expansion of root canal space was seen in relation to 21 (Fig 2). 11 showed a periapical lesion of about 6mm diameter and 21 showed a periapical lesion of about 8mm diameter. On the basis of clinical appearance and radiographic examination, a diagnosis of internal resorption secondary to pulp necrosis was made in relation to 21 and pulpal necrosis for 11. Endodontic treatment was recommended for both 11 & 21 followed by a direct composite veneer for 21 and a composite build up for 11. Patient's written consent was obtained and treatment was initiated.

An access opening was prepared in 11 & 21 and initial pulp extirpation was performed. Working length was determined using an apex locator (J Morita ROOT ZX, Mini) and it was confirmed with radiographs (Fig 3).

The root canals were then completely debrided and prepared by the Crown-down technique to a size F1 (Protaper TM, hand instruments). Copious irrigation with saline and sodium hypochlorite was performed throughout the procedure. During the next appointment, master cones (F1) were selected for both 11 & 21 (Fig 4), the canals were dried with paper points and obturated using resin sealer with lateral condensation method (Fig 5).

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The patient was recalled after 1 week for bleaching procedure with 21. 2 mm of gutta percha was removed from the coronal section of the root canal and Glass Ionomer cement barrier was placed(Fig 6). Bleaching gel (Pola Office™) was used for intra-coronal and extra-coronal bleaching procedure according to the manufacturer's instructions. After the bleaching procedure, the access cavity and subsequently, fractured parts of 11 and 21 were built up & restored with composite resin (Filtek™, 3M) and final finishing and polishing was carried out(Fig 7).

III. DISCUSSION

According to Shafer, "Internal resorption is an unusual form of tooth resorption that begins centrally within the tooth, apparently initiated in most cases by a peculiar inflammation of the pulp"³. It is usually asymptomatic and is discovered on routine radiographs.¹ Internal resorption may progress slowly, rapidly or intermittently with periods of activity and inactivity.⁴ The cause of internal resorption is not known, but such patients often have a history of trauma.⁵ The abnormal pulpal response results in dentinoclastic activity that generates an increase in the size of the chamber.⁴

Although any tooth in the mouth can be involved, those most readily recognized are the maxillary anterior teeth. The appearance of the "pink spot" occurs late in the resorptive process, when the integrity of the crown has been compromised. When the internal resorption progresses into the periodontal space, a perforation of the root occurs and then it is difficult to differentiate from external resorption.⁵

In internal resorption, the resorptive defect is more extensive in the pulpal wall than on the root surface.⁵ Early diagnosis and root canal therapy is very important in order to stop the resorption process.⁶ The resorbing cells in internal resorption are pulpal in origin. Therefore, a pulpectomy will remove the granulation tissue and blood supply of these cells. For this reason, a pulpectomy alone is a predictable treatment form in this type of resorption.⁷ The outcome of treatment of teeth with internal root resorption depends primarily on the size of the lesion. Large lesions cause a reduction in the resistance of the tooth to shear forces that may lead to tooth fracture.⁶

In the present case, the pinkish discoloration had set in early and the clastic activity of the pulp had not compromised the strength and integrity of the crown extensively. Hence, the timely intervention with endodontic treatment for 21 prevented further progression of the resorptive process and subsequent root or cervical crown fracture.

At 3 months follow-up, radiographic presentation of both 11 & 21 showed complete resolution of the periapical lesions and new trabecular bone formation pattern was visible in both periapical areas. 11 & 21 were completely asymptomatic and patient had no complains whatsoever.

IV. CONCLUSION

Root resorption is a complex process where the etiologic factors are less clearly defined. For the best treatment outcome, the clinician should have a good knowledge of the etiopathology of resorptive lesions. Early diagnosis and prompt treatment in such cases are the key factors which determine the success of the treatment.

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- Pic 6: IOPA x-ray after GIC barrier placement
- Pic 7: Post operative clinical photograph
- Pic 8: IOPA x-ray at 3 month follow-up

Fig 1.



Fig 2

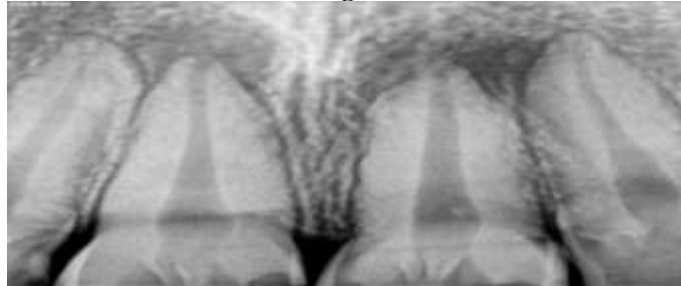


Fig 3



Fig 4



Fig 5

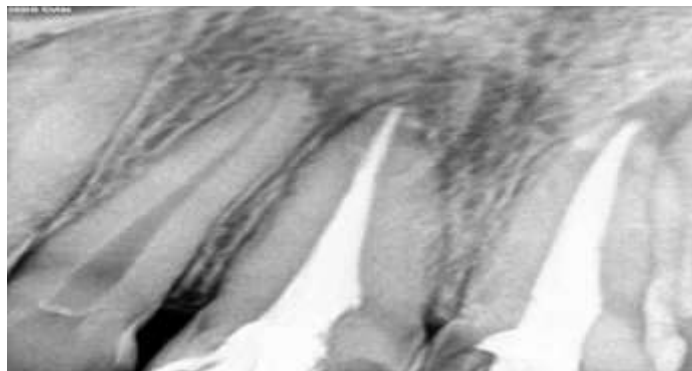


Fig 6



Fig 7



Fig 8

