

CASE REPORT

A case report: Pulpectomy case on upper left second deciduous molar with swelling and pus

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Abstract

It is a case of chronic open pulpitis on upper left second deciduous molar with presence of extra oral swelling. Patient was six years old. So, the preservation of tooth was important to prevent malocclusion. The treatment of choice was pulpectomy which was successfully completed. Follow up was done after seven days where all the sign and symptoms were subsided. The tooth was finally restored with permanent restoration.

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Introduction

Pulpectomy is commonly indicated for primary teeth with extensive carious destruction accompanied by infection of the root canal system.¹ By eliminating the need for premature extraction, this conservative endodontic procedure can help maintain the primary dentition and preserve arch integrity. Early loss of a primary tooth may reduce available arch space, interfere with the normal eruption path of its permanent successor, increase the risk of premolar impaction, and promote mesial displacement of the adjacent permanent molar.² This case was selected for pulpectomy due to necessity for preservation of the tooth despite presence of swelling and pus. At this age extraction of this tooth may cause malocclusion.

History and clinical examination

A 6 years old boy reported to the department of pediatric dentistry of Pioneer dental college and hospital with complaints of pain on upper left posterior segment for 1 month and swelling for 3 days. On clinical examination patient had a gross caries on upper left second deciduous molar with extra oral swelling on left side.

Treatment plan and objectives

Patient history, clinical and radiographic examination revealed that is a case of chronic periapical abscess and treatment option was Pulpectomy of upper left second deciduous molar.

Treatment plan and progress

All remaining caries was removed, followed by careful removal of caries near the pulp. The pulp chamber roof was opened using a high-speed round bur under water coolant. No bleeding was observed from the chamber or canals. During canal exploration with a DG-16 explorer, pus with a foul odor was detected. The chamber was therefore left open for 24 hours to facilitate intraoral drainage. Antibiotics and analgesics were prescribed, and warm saline rinsing was advised. At the second visit, the swelling had subsided, allowing continuation of treatment.

was remarkably reduced as well as pain subsided. Coronal pulp was removed by sharp spoon excavator and radicular pulp was removed with barbed broach.

Working length determination was done by radiographic method. Working length was 13mm in mesiobuccal canal, 10 mm in distobuccal canal, 12 mm in palatal canal. Biomechanical preparation was done with file upto 30 no. in palatal canal and 25 on both mesiobuccal and distobuccal canal. Copious irrigation was done with normal saline. After full length preparation of canal calcium hydroxide was given as intracanal medicament for 7days. After 7 days pain and swelling was subsided. After removal of calcium

hydroxide from canal irrigation was done with normal saline then canal was dried with paper point, Canal was sealed with zinc oxide eugenol sealer.

Results

After 7 days patient was recalled for follow up. Periapical radiograph was taken. Presence of swelling, pus and other sign, symptoms were also subsided. Tooth was finally restored with glass ionomer cement.



Figure-1: Initial clinical condition with radiograph a) Patient with swelling and pus (Front view), b) Patient with swelling and pus (Lateral view), c) Radiograph showing gross caries with periapical radiolucency d) Clinical condition of tooth with gross.

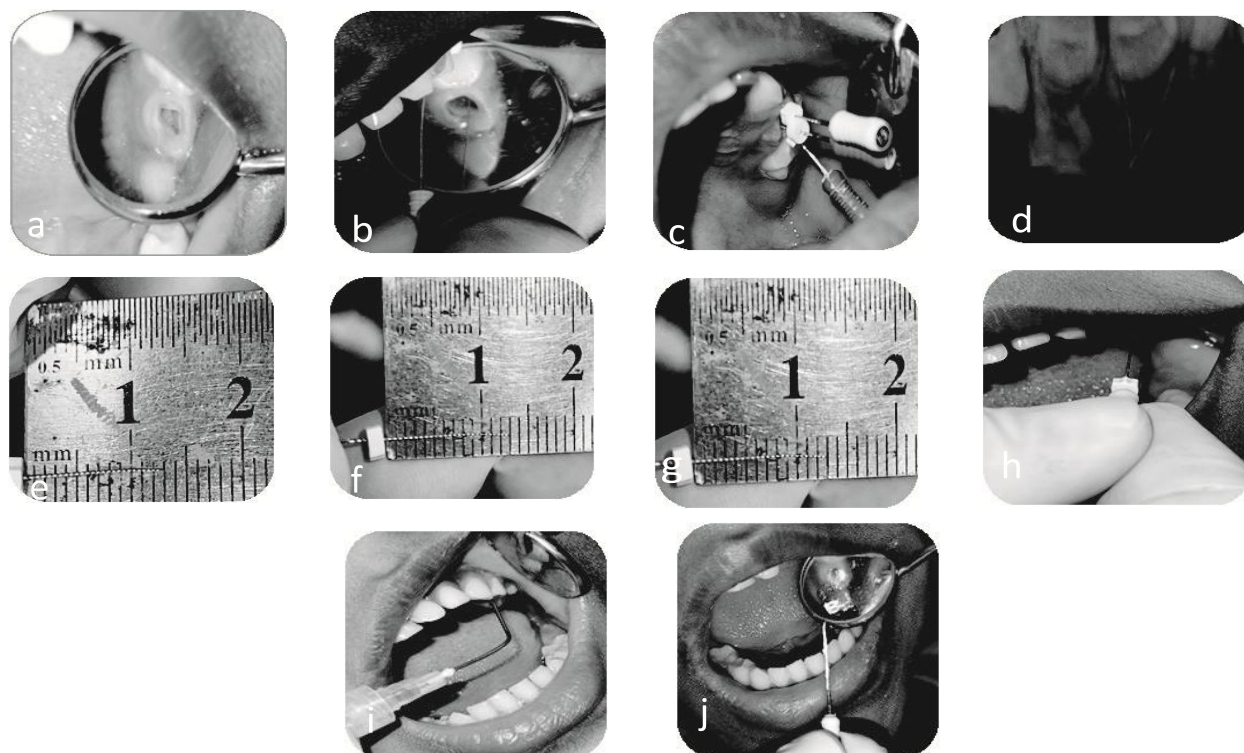


Figure-2: Operative procedures a) Access cavity preparation, b) Canal locating, c) Instruments Used for Working length determination. d) Diagnostic X-ray, e) Mesiobuccal: 13 mm, f) Distobuccal: $10+2=12$ mm g) Palatal: $12+0.5=12.5$ mm, h) Biomechanical preparation of the canal up-to file no 30, i) Irrigation of the canal is done with normal saline, j) After drying the canal, apply calcium hydroxide into the canal.

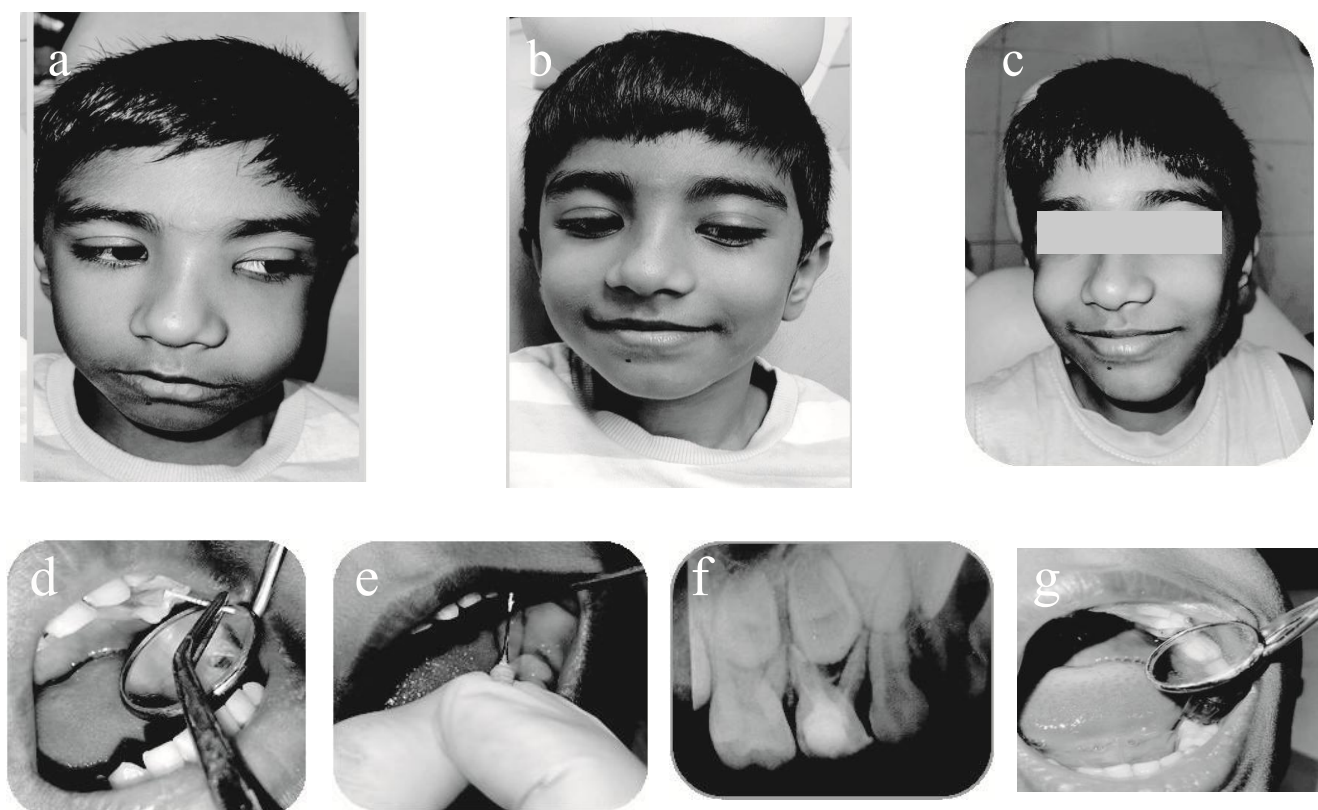


Figure-3: After calcium hydroxide a) Before, b) After, c) After seal 7 days follow, d) Dried the canal with paper point, e) Application of sealer into canal, f) Post Operative Radiograp (After seal) g) Final restoration with Glass ionomer cement

Discussion

The basic idea of the treatment procedure was to preserve the deciduous tooth to maintain its normal physiological function in the oral cavity and prevent malocclusion which may occur if the tooth was its normal shedding time.

Conclusion

We know that premature loss of a primary tooth can result in loss of space for the permanent tooth and that leads to future problems during the eruption phase, so that's why we want to maintain the tooth.

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