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Document heading doi: 10.21276/apjhs.2018.5.3.37 **Case Report**

Treatment of Acute Apical Abscess by Endodontic Management

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ABSTRACT

Acute apical abscess is most common dental disease. It is formed when the infection from root canal travel to the periapical tissues followed by the formation of pus. A clinician must have a thorough idea about the management and regimens that is best given to treat the disease. The purpose of this article was to describe the endodontic management of an Acute Apical Abscess in an 21 year-old girl. The patient presented inflammation of extraoral tissues

Keywords: Acute Apical Abscess, Endodontic Management, Maxillary molar.

Introduction

According to American Association of Endodontists Acute Apical Abscess is an inflammatory reaction to pulpal infection and necrosis characterized by rapid onset, spontaneous pain, extreme tenderness of the tooth to pressure, pus formation and swelling of associated tissues. There may be no radiographic signs of destruction and the patient often experiences malaise, fever and lymphadenopathy[1].

Acute apical abscess is most common dental disease[2].It is formed when the infection from root canal travel to the periapical tissues followed by the formation of pus[3].A clinician must have a thorough idea about the management and regimens that is best given to treat the disease. Acute periapical abscess is due to an infected or non-vital tooth. To manage these infections eradication of the infection is of prior importance[1].

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The clinician should first drain the pus accumulated. The pus is drained by giving incision on the tissue eswelling. Here biomechanical preparation is done accompanied by intra-canal medicaments. Systemic antibiotics are also given for clinical management of these infections. The purpose of this article was to describe the endodontic management of an Acute Apical Abscess in an 21 year-old girl. The patient presented inflammation of extraoral tissues[4].

Case Report

A 21 years old female patient came to the department with the chief complaint of pain and swelling in upper right posterior tooth. The pain was localized and aggravated while taking food and touching the tooth. On clinical examination abscess is seen on buccal side (Figure 1). Radiographic examination revealed a periapical abscess (Figure 2). The tooth was previously filled with amalgam. The tooth was diagnosed as irreversible pulpitis with acute apical abscess after a proper evaluation and thorough examination. Access opening was done. Incision was given and abscess was drained. Pus drainage was achieved by compressing the swelling followed by copious irrigation with saline. Working length was determined with apex locater and

confirmation was done by RVG (Figure 3). After taking the working length proper cleaning and shaping was done with Hyflex EDM File, between filing, copious irrigation of root canal was done with 5.25 % sodium hypochlorite. Canals were obturated with guttapercha cones using AH Plus sealer and then the cavity was filled with cavit (Figure 4). On the next appointment the cavit was removed and composite restoration was done (Figure 5). Antibiotics and pain killers were prescribed to the patient for 5days. The patient was recalled follow up after a week for evaluation. The pain was completely diminished; abscess was healed both radiographicallyas well as clinically. Apical radiolucency was also reduced (Figure 5).

Fig 1: Intra-oral abscess on buccal side

Fig 2: Pre-operative Radiograph

Fig 3: Working length determination

Fig 4: Guttapercha cones

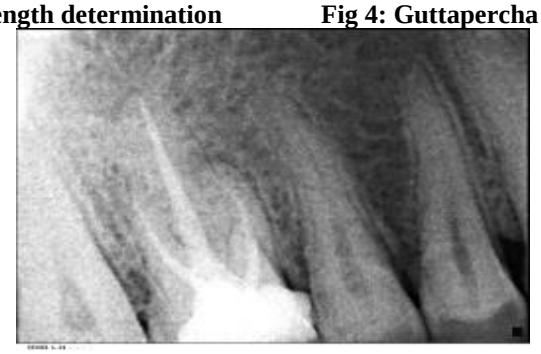

Fig 5: composite restoration

Discussion

In this article, the clinical management of an AAA was performed by root canal treatment in addition with the systemic administration of amoxicillin and clavulanic acid (MOXCLAC 625mg) to achieve an effective antibacterial effect. Here along with root canal treatment drainage of pus is done to relieve the patient from pain by decreasing the apical infection. In the clinical management of AAA, intracanal medicaments are indicated for antibacterial properties, thus helping in reduction of inflammation[5].

There may be destruction of surrounding bone because of the inflammatory response in periapical tissues. As this is an acute disease, emergency treatment is required to reduce the pain of the patient. Emergency treatment includes removing the inflamed pulp tissue removal, complete disinfection of the root canal system and systemic antibiotic treatment alone or in combination with other treatments[6]. According to guttman the key to endodontic success is the debridement and neutralization of any tissue, bacteria, or inflammatory products within the root canal system. In the present study sodium hypochlorite was used to disinfect canals because it is effective against E. faecalis. A successful clinical outcome is seen as there is absence of signs and symptoms and no radiological evidence of periapical pathology[7]

Conclusion

There is reduction of periapical lesion and swelling seen in the present case report, which is obtained by endodontic treatment followed with combination with a systemic antibiotic. For a successful endodontic treatment, the operator should have a proper knowledge of canal configurations and variations.

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