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REVIEW ARTICLES **OPEN ACCESS**

DENTAL NEGLECT: A CASE REPORT AND A SHORT REVIEW

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ABSTRACT

Dental neglect is defined by the American Academy of Pediatric Dentistry (AAPD) as failure of caregivers to provide prerequisites of proper oral function via seeking and timely dental treatment services necessary to be free from pain and infection.. In some cases after pulp therapy, pulp and peri radicular inflammation steadily progresses without any signs or symptoms; thus, long term follow-up of these treatments in primary teeth is essential. But most practicing dentists fail to emphasize the importance of follow up to the parents and patient ,they also fail to report back after their primary dental concern is resolved. Here we are discussing a case of passive dental neglect following pulp therapy in primary teeth which lead to the development of radicular cyst and its corresponding treatment and follow up.

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INTRODUCTION

Oral health is fundamental to general health and well-being. A healthy mouth enables an individual to speak, eat and socialize without experiencing active disease, discomfort or embarrassment. The people show a lot of neglect to maintain their oral health. The cost of neglect is high in terms of its financial, social and personal impacts.[1] The World Health Organization has stated that neglect has to be distinguished from circumstances of poverty, implying that neglect can only occur in cases where reasonable resources are available to the family or caregiver.[2]Neglect, in general, and dental neglect, in particular, are the least known and detected types of abuse, even though they are the most frequent ones. The American Academy of Pediatric Dentistry defined neglect as parents' failure to pursue the necessary dental treatment required to maintain the child's oral health and to ensure their freedom from pain and infection as dental neglect.[3]

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Dental neglect is also defined as being "the failure to take precautions to maintain oral health, failure to obtain needed dental care and physical neglect of the oral cavity".[4] Dental neglect is not an isolated issue, studies have shown that there are links with parental ill-health, substance misuse, domestic abuse, unemployment and poverty, with neglectful families often experiencing a combination of these adverse factors. Studies have also reported that neglectful families often have a number of attributes including, an inability to plan, lack of confidence about the future, difficulty with managing money, emotional immaturity, lack of knowledge of children's needs, a large number of children, being a teenage mother, high levels of stress and poor socioeconomic circumstances.[5] Neglect can be presented in three ways as [6]

Active neglect is the intentional failure of parents or guardians to fulfill their care giving responsibilities.

Passive neglect is unintentional failure of parents or guardians to fulfill their care giving responsibilities because of knowledge, illness, infirmity, finance or lack of awareness of available community support/resources.

Self neglect is a person's inability to provide for his or her own needs because of physical, mental or developmental disability or any combination of these. The impact of improper care to oral disease like dental caries can even lead to cyst and tumor formation which further affects their lives. Here we are presenting a case of passive dental neglect which lead to a cyst formation.

CASE REPORT

A 12 year old female patient reported to the Department of Pediatric and Preventive Dentistry, Rajarajeswari Dental College and Hospital, Bangalore with a chief complaint of pain and swelling in the lower right back side of the face since 1 week. The patient gave history of toothache in the same region since the last 6 months. The patient also gave history of restricted mouth opening and difficulty in chewing since the onset of the swelling. Patient gave history of pulp therapy being done for 85 followed by SS crown about 4 years back. The parent ralso said of not consulting a dentist for follow up or regular dental check up since then.

The extra oral examination revealed the presence of a firm swelling measuring 2 x 3cm in the right lower border of mandible. Intraoral examination revealed a firm swelling extending from mesial aspect of 47 to distal aspect of 44. Vestibular obliteration of buccal sulcus was noted, indicative of expansion of the buccal cortical plate. There was no intra-oral sinus or active pus discharge present. OPG evaluation showed a radiolucency with defined margins involving 44,84,46 and un-erupted tooth bud irt 44.The radiographic findings indicated the presence of a cyst. (Fig 1)

Fig. 1. OPG showing well defined radiolucency irt 44,,45,46,and 85

Fig 2: CBCT image showing the extend of the cyst

Cone Beam Computed Tomography (CBCT) revealed a well defined radiolucency extending from distal aspect of 44 till mesial aspect of 47 antero-posteriorly, superior-inferiorly extension was from alveolar crest to 2mm from base of mandible and an impacted tooth irt 45 was noted which was displaced bucally. Fine Needle Aspiration Cytology (FNAC) of the contents from the cystic lumen was performed (Fig 2). From the history, clinical, radiographic and histopathological presentation, we arrived at a provisional diagnosis of radicular cyst. The treatment plan involved marsupilization of the lesion. Incision was made from 44 to mesial end of 47 along the gingival margin and the cystic site was exposed. Considerable thinning of the buccal cortical plate was observed, which was removed leaving the lingual plate in its intact state. The cystic lining was marsupialized along with extraction of 85 and sent for histo-pathological examination. Post surgical healing was uneventful. Histo-pathological features revealed a cystic lumen lined by stratified squamous epithelium which was 4–5 cells thick. The cyst was covered by fibrous connective tissue wall with spindle-shaped cells which confirmed the definitive diagnosis of radicular cyst. (Fig 3)

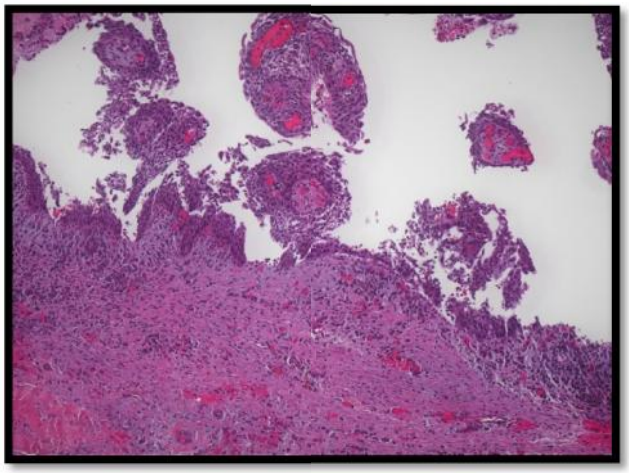

Fig 3. H and E stained section of the biopsy confirming the diagnosis of radicular cyst

The presence of retrograde infection from the radicular resulted in non vitality of 44 and 46,so root canal treatment was done in relation to 45 and 46 . After 6 months, follow up was done and IOPA was taken which revealed that the premolar (44) was erupting in its normal eruptive path. After 12 months, the premolar had completely erupted into the normal occlusion (Fig 4 and Fig 5)

Fig. 4. Radiographic evaluation at 3 month follow up

Fig. 5. Clinical photograph at 1 year follow up

DISCUSSION

Pulp therapy is recommended for treatment of primary teeth with pulpitis or apical periodontitis. Side effects of pulp therapy treatments may include cyst formation, delayed eruption or enamel defects of permanent successor teeth. It seems that there may be a relationship between the intra canal medicaments used for pulp therapies and the distinctive intraepithelial inclusions which are found in cyst walls that may provide a site for prolonged antigenic stimulation.[7] In fact pulp therapy of primary teeth does not always have good prognosis and is affected by many factors such as root canal curves, presence of accessory canals and root resorptions. In some cases after pulp therapy, pulp and peri radicular inflammation steadily progresses without any signs or symptoms; thus, long term follow-up of these treatments in primary teeth is essential. But most practicing dentists fail to emphasize the importance of follow up to the parents and patient ,they also fail to report back after their primary dental concern is resolved. In our case the cystic lesion was associated with a pulpectomized deciduous second molar (85).Thus we reached a conclusion that the radicular cyst in the present case was a result of passive dental neglect due to nonchalant attitude of the parents in regards to oral health and the lack of proper communication between the child's previous dentist and the parents.

Dental neglect is defined by the American Academy of Pediatric Dentistry (AAPD) as failure of caregivers to provide prerequisites of proper oral function via seeking and timely dental treatment services necessary to be free from pain and infection.[3] Although child dental neglect may occur in any family, typical social determinants such as poverty, unemployment, homelessness, family isolation, illness, overcrowded housing, poor housing, economic status and substance abuse can attribute to this kind of maltreatment.[2] But dental neglect is not uncommon among the affluent and educated faction of the society, especially in situations where both parents have busy schedules due to their professional demands and an overall lack of interest in dental care give rise to scenarios of neglect. Victims of neglect may suffer from dental pain, difficulty eating, infection, loss of oral function, disrupted sleep, poor appearance, low weight, poor performance in school, low self-esteem and finally, poor quality of life .[1,8]

These undesirable outcomes can lead to negative effects on nutrition, learning capacity, and any other activity of the child, which is fundamental for normal growth and development.[9] Some family characteristics result in parental ignorance and low dental intelligence, which prevent parents from meeting their child's dental care needs. Unfortunately, some parents only seek healthcare in case of dental emergencies. It is likely for parents to adopt such an approach for their children, which was the scenario in our case. Care must be taken when differentiating parents without awareness of the child's dental need from parent with adequate knowledge of child's oral status. The later parents have been alerted about their child's dental problems, the treatment needed and how to receive services yet they tend to show persistent failure to meet their child's need. Dentists are in the position to diagnose child dental neglect.General indicators include: repeated non-attendance for scheduled oral health assessments (dental checkups); attendance for emergency pain relief more than once; and requirement for dental extractions/care under general anesthetic more than once .[6] Other indicators for dental neglect are: history of lack of continuity of care in the presence of previously identified dental pathology such as untreated rampant caries, untreated pain, infection, bleeding or trauma affecting the oro-facial region. The impact of the caries on the child should be assessed, dental records studied and parental awareness and knowledge, access to dental care and the child's willingness to undergo treatment considered when suspecting dental neglect.[2]

But even now majority of practicing dentists fail to notice the signs and even if they do most tend to ignore it and focus only on the dental treatment to be rendered thus turning a blind eye towards the comprehensive well being of the child, thus more emphasis should be placed on this topic as part of undergraduate dental education. Dental curriculum doesn't properly train students to detect dental neglect cases.This problem may be alleviated by revisiting the curricula and including a detailed topic on this issue and its clinical recognition. Thus, in this way, when students initiate their private practice, they will deal with dental neglect more competently. Postgraduate education is another way to provide dentists with the features of child dental neglect. Physicians as a professional with the highest level of pediatric patients may not diagnose the dental aspects of neglect. Thus, it is also suggested that physicians and dental team should collaborate with each other to maximize prevention, identification and treatment of dental neglect victims. Dentists also tend to hold their silence infear of impact on their practice, fear of family violence against the dental team itself, or against the child, fear of litigation and lack of certainty of diagnosis.[2]

Professionals must ensure that the caregiver realizes the nature and extent of the disease and attempts to overcome the barriers of accessing dental services for the child.It is strongly believed that improving the knowledge of parents toward daily oral health practices as well as the correct feeding habits is essential.[5] Also educating the parents regarding the importance of follow up consultation after dental procedures and routine dental checkups will help in eliminating cases like the present one. Thorough follow up on patients who have missed appointments or failed to show up for recall appointments should be ensured from the dentist's side. Dental neglect is a topic which has not been prioritized adequately till date and hold a lot of scope for future research.

Conclusion

Dentists can provide valuable information and assistance to physicians about oral and dental aspects of child abuse and neglect. Considering the importance of a healthy dentition in digestion, knowing the role of primary dentition in tooth exchange, and being aware of the consequences of infections and toothaches in the child's social life, we should feel it our duty to detect and treat cases of neglect at the earliest for better quality of life.

ABBREVATIONS

CBCT: Cone Beam Computed Tomography
FNAC: Fine Needle Aspiration Cytology
H AND E STAIN: Haematoxillin And Eosin Stain
OPG: Ortho Pantamogram

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