

Management of an Immature Child with Severe Early Childhood Caries.

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Abstract

Purpose: The purpose of the case is to manage an immature child with severe early childhood caries under General Anesthesia.

Case Report : A 3 years old male patient came with the complain of multiple decayed teeth and pus discharge from the front teeth region to the Department of Pedodontics and Preventive Dentistry, Santosh Dental College and Hospital, Ghaziabad, U.P. The child was emotionally immature and extremely uncooperative. Intra-oral examination revealed poor oral hygiene and multiple teeth involved with caries. Crowns of the deciduous maxillary incisors were grossly destructed. As the child was not able to cooperate, it was decided to treat the child under General Anaesthesia. The parents were explained the clinical situation in detail, they were convinced and

Informed consent was obtained for the dental procedures under General Anaesthesia.

Conclusion: Oral health problem in children is due to parental belief of reduced importance of deciduous teeth. According to this approach in very short period of time the complete full mouth oral rehabilitation can be performed in a single visit and allowing immediate relief of pain.

Keywords: Caries, General anesthesia, Pus discharge, Full mouth rehabilitation and Poor oral hygiene

Introduction

According to American Academy of Pediatric Dentistry the Early childhood caries (ECC), is defined as the presence of one or more decayed (non-cavitated or cavitated lesions), missing (due to caries), or filled tooth surfaces (DMFS) in primary teeth in a child under the age of six.¹

In children severe ECC (S-ECC) is defined as any sign of smooth- surface caries in a child younger than 3 years of age, and from ages 3-5years, one or more cavitated, missing (due to caries),or filled smooth surfaces in primary maxillary anterior teeth, or a decayed, missing, or filled score of ≥ 4 (age 3), ≥ 5 (age 4), or ≥ 6 (age 5).^{2,6} In ECC deciduous maxillary incisors are affected first followed by maxillary first molars and then mandibular molars. The mandibular incisors are often spared due to the presence of tongue and opening of salivary glands.³

The children with the age group of 2-5 years are the most controllable and demanding age group. In this case report 3-years old boy patient with rampant caries reported to the Department of Pedodontics and Preventive Dentistry, Santosh Dental College and Hospital, Ghaziabad.

Case

A 3-Year old boy with the chief complaint of multiple decayed teeth and pus discharge from the front teeth region was brought to the department of Pedodontics and Preventive Dentistry by his parents. The child was emotionally immature and extremely uncooperative. The parents too were not aware of the severity of the condition. Intra-oral examination revealed poor oral hygiene and multiple teeth involved with caries. In the deciduous maxillary incisors the crowns were grossly decimated (Figure 1 & 2). The intraoral soft tissue examination revealed gingival inflammation in relation to upper anterior teeth due to plaque and food accumulation. Dental caries was present in Maxillary deciduous Incisors, Canine and first molar (Both Quadrants) (51,52,53,54,61,62,63,64,) and Mandibular deciduous teeth both quadrants (71,72,73,74,75, 81,82,83,84,85). Periapical abscess was seen in relation to 51 and 52 with pathologic mobility and gingival swelling. The complete treatment plan included restoration of carious teeth and extractions of hopelessly destructed teeth and roots. The

treatment plan was discussed with parents. As the child was not able to cooperate, it was decided to treat the child under General Anaesthesia. The parents were explained the clinical situation in detail, they were convinced and Informed consent was obtained for the dental procedures under General Anaesthesia.

Treatment plan decided was Extractions of 51,52,53,61,62,63,64, Glass Ionomer Cement (GIC) restoration in 74 and 84, light cured composite restoration in 54,71,72,73,75,81,82,83,85.

According to the treatment plan the patient was admitted to Santosh Medical Hospital, Ghaziabad and pre-anesthetic checkup was done. Under General Anaesthesia, extractions and Glass Ionomer Cement and composite restorations were done as decided. The child was transferred OT to post op care for 4 hours and later shifted to day care room. He was discharged on the next day morning with a detailed discharge summary and instructions.

The instructions which was given to the patient parents was to maintain the oral hygiene of the patient and diet which was given to him. The patient was recalled for the follow up of 1 week, and 6 months to evaluate the maintenance status of oral hygiene and for performing preventive procedures in the child's mouth. After 6 months we delivered Functional removable partial denture in maxilla to the patient. (Figure 5 a,b)



Fig 1- Preoperative Intra oral photographs of maxillary arch.



Fig 2- Preoperative photographs of mandibular arch.



Fig 3- Postoperative photograph of maxillary arch



Fig4- Postoperative photograph of mandibular arch



Fig 5 : (a) Functional Removable Partial Denture (b) Postoperative Frontal view.

Discussion

Most children can be effectively managed in the dental clinic by conventional methods of nonpharmacological technics of child management in dental office. However management of immature uncooperative children is

always a challenge for the pediatric dentists. Hospitalization for treatment under General anaesthesia can be and should be considered for such children. The children who are unable to cooperate or respond due to terror, anxiety, lack of psychological or emotional maturity as per the age, mental or medical disability or young patient with need of extensive dental therapy is their subsequent acceptance of care using other methods with low risk and low impact.⁴

The aim of General anesthesia is to reinstate the oral health of the child's in a single visit.⁴ In this case the parents were very happy and satisfied with the treatment approach. They reported the child to have improved quality of life and health status mainly in terms of eating, sleeping, pain alleviation and positive behaviour.

Restorations were found to be serving well when checked in recall appointments. The patient had improved oral hygiene and behavior in follow up visits.

The success of effective dental treatment lies in the development of a good rapport with the child and parents. This helps in a positive psychological development of the child. Usually children can successfully be treated in the dental office by implementing the various non-pharmacological methods of child behaviour management techniques. However in some cases of disruptive behaviour or non cooperation from the child due to psychological or medical reasons, use of sedation, relative analgesia or general anesthesia may be warranted depending upon the patient compliance and treatment modality.⁵ For various dental OPD procedures day care anesthesia is advocated wherein the patient is treated under general anesthesia and discharged on the same day. In this case after 6 months we delivered Functional removable partial denture because the parents was concern about the child teeth which was lost after extraction. In many cases the child, after the early loss of teeth becomes

psychologically disturbed especially when they views them as being different from there peers.^{7,8}

Conclusion

Oral health problem in children is due to parental belief of reduced importance of deciduous teeth. According to this approach in very short period of time the complete full mouth oral rehabilitation can be performed in a single visit and allowing immediate relief of pain. However, it has little effect in promoting oral health and acceptance of routine dental care.

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