

ESTHETIC REHABILITATION AND COMPREHENSIVE MANAGEMENT OF MUTILATED PRIMARY TEETH: A CASE REPORT

Sayani Roy¹ Harsimran Kaur² Rishika³ Ramakrishna Yeluri⁴

Former Post Graduate Student¹, Professor², Senior Lecturer³, Professor & Head⁴

1,4-Department of Pedodontics and Preventive Dentistry, Teerthanker Mahaveer Dental College & Research Centre, Moradabad

Abstract

Although there have been many technological advances in the field of dentistry yet early childhood caries (ECC) remains a serious threat to a child's oral health. Restoration of severely damaged teeth often poses difficulty and the treatment is a challenge for a paediatric dentist, thus, reporting a case of successfully managed mutilated primary teeth and recreation of lost aesthetics and function.

Keywords: Early childhood caries, full mouth rehabilitation, post and core, paediatric crowns

Introduction

Early childhood caries (ECC) is a severe socio-behavioural dental health problem that affects children who are of 71 months age or younger leading to premature tooth loss.¹ Early loss of tooth not only affects the function and aesthetics but has ill impacts on the psychology and overall health of the child. Saving and restoring possible number of teeth is a challenging task for a paediatric dentist, as the paediatric patients are amongst the youngest and most unmanageable group. Due to lack of knowledge and neglect, the severity of the disorder have impelled extraction in most of the cases, in spite of greater difficulty in convincing the parents as well as the clinicians.²

The advances in the field of restorative and endodontic procedures in paediatric dentistry have made the management of mutilated teeth a great success.³ Although extraction is the fate of severely wrecked teeth but the understanding of space management plays an important role in rehabilitation of the oral health.

With the use of newer materials and techniques that have been incorporated in paediatric dentistry, achieving good oral health has become likely.

This article presents a case where severely mutilated teeth have been successfully managed and the overall aesthetics and functions are restored.

Case report

A male patient of age 4 years reported to Department of Pedodontics and Preventive Dentistry, TMDCRC with the complaint of decayed teeth in upper and lower teeth region since one year. On intraoral examination, root stumps in relation to (irt) 62, 63, 64, 72, 73, 74, 82, 83, 84, 85 grossly decayed teeth irt 53, 54, 55, 65, 71, 75 deep caries irt 52, 81 internal resorption irt 51 were observed [Figure 1]. Orthopantomogram of the patient showed normal development of permanent tooth bud. [Figure 2] Pulpal therapy was planned for the primary teeth were found to be firm and restorable and extraction was planned for the hopeless teeth.



Figure 1: Multiple carious lesions (pre-operative)



Figure 2: Preoperative radiograph

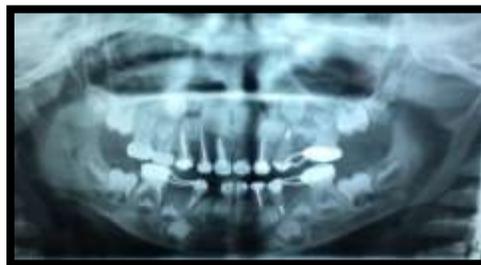


Figure 3: Postoperative radiograph



Figure 4-Postoperative photograph



Figure 5- Twelve months follow-up

Step-wise treatment was carried out as mentioned:

- Pulpectomy followed by metaphex obturation of 51, 52, 53, 62, 63, 72, 73, 83 and 85 was done. [Figure 3]
- Space was created by removal of the obturating material followed by placement of posts (biological, glass fibre and metal) in 51, 52, 53, 62, 63, 72, 73, 83 and 85 with luting GIC cement. [Figure 3]
- After post and core build up it was followed by full coverage restoration by composite shell crowns in anterior and stainless steel crowns in posterior teeth. [Figures 3 & 4]
- Extraction in 64, 74, 84 was done followed by band and loop space maintainer and extraction in 82. [Figure 3]
- Composite restoration in 71, 81 was done

Clinical and radiographic evaluation at three, six, nine and twelve months revealed the presence of intact crowns and the absence of pathology, confirming the success of the treatment. A positive attitude towards dental treatment and behaviour modification had been observed too.

Discussion:

Kapur *et al*⁴ stated that despite of decline in overall caries prevalence, its incidence continues to be as high as 18% in 2 to 4 year-old and 52% in 6 to 8 year-old children.

Total destruction of the dental structures in cases like early childhood caries requires use of intra-canal retainers to provide functionality, aesthetics and contour in such teeth.

In order to restore the teeth, aesthetics, function and mechanical resistance to fracture, use of various approaches and materials are needed. A pediatric dentist

should have thorough knowledge regarding the same to implement them in patient's oral cavity.

Hence, the above-mentioned techniques are required for comprehensive management and establishment of function and excellent aesthetics in such cases.

Conclusions:

ECC not only has a debilitating effect on physiological and psychological well-being of a child but may also affect the succedaneous teeth. The role of a paediatric dentist is to correct the function and aesthetics as well as instil positive dental attitude in both the child and the parents.

References:

1. American Academy of Pediatric Dentistry and American Academy of Pediatrics. Policy on Early Childhood Caries (ECC): Classifications, Consequences, and Preventive Strategies. 2016.
2. Lambrechts F, Willems G, Vanherle G, Braem M. Esthetic limits of light cured composite resin in anterior teeth. *Int Dent J.* 1990;40:149-58.
3. Andreasen JO, Ravn JJ. Epidemiology of traumatic dental injuries to primary and permanent teeth in a Danish population sample. *Int J Oral Surg.* 1972;1:235-9.
4. Kapur A, Chawla HS, Goyal A, Gaube K. An esthetic point of view in very young children. *J Clin Pediatr Dent.* 2005;30:99-103.
5. Webber DL, Epstein NB, Wong JW, Tsamtsouris A. A method of restoring primary anterior teeth with the aid of a celluloid crown form and composite resins. *Pediatr Dent.* 1979;1:244-6.
6. Kriplani R, Bahadure R, Thosar N. Full Mouth Rehabilitation of Early Childhood Caries: A Case Report. *J DattaMeghe Inst Med Sci Univer.* 2012; (7)1: 51-3.
7. Motisuki C, Santos-Pinto L, Giro EM. Restoration of severely decayed primary incisors using indirect composite resin restoration technique. *Int J Pediatr Dent.* 2005; 15:282-6.

Corresponding Author:

Dr. Rishika

Senior Lecturer

Department of Pedodontics and Preventive Dentistry,
Teerthanker Mahaveer Dental College and Research
Centre, Moradabad (U.P).

Email-rishika.choudharygill@gmail.com

Phone no. 8791212706

How to cite this article: Sayani Roy, Harsimran Kaur, Rishika, Ramakrishna Yeluri. Esthetic Rehabilitation and Comprehensive Management Of Mutilated Primaryteeth: A Case Report. TMU J Dent 2020;8(1) 1-3.