Case Report

J Babol Univ Med Sci
21; 2019. P:122-126

Report a Case of Beauty Regeneration in a Child with Premature Tooth Decay

D. Alinejad (DDS, MS)[1], N. Amrollahi (DDS, MS)*[2]

1.Department of Pediatric Dentistry, Faculty of Dentistry, Tehran University of Medical Sciences, Tehran, I.R.Iran
2.Dental Research Center, Faculty of Dentistry, Isfahan University of Medical Sciences, Isfahan, I.R.Iran

J Babol Univ Med Sci; 21; 2019; PP: 122-26
Received: Aug 26th 2018, Revised: Dec 22nd 2018, Accepted: Jan 3rd 2019.

ABSTRACT

BACKGROUND AND OBJECTIVE: One of the biggest challenges in pediatric dentistry is the oral rehabilitation of children who have lost their teeth due to early childhood decay severe trauma. In this report, a fixed anterior plaque is reported in a child with early decay.

CASE REPORT: In this study, a 4-year-old boy referred to a dental clinic in Isfahan with a major complaint of ugly appearance and inability to chew on anterior teeth due to decay. After clinical and radiographic examinations of the posterior teeth, pulp treatment and stainless steel coating were applied and the anterior teeth were pulled. After 6 weeks of complete recovery of the wound site, the cords with appropriate size fitted to the second molar maxillary teeth and matched to the upper jaw. After making the appliance and before the cementation, the plaque was examined for oral occlusion and beauty, with the help of Fuji I.GC corporation cement fixed in the mouth. The child was called 24 hours later, then one month later, and was followed up regularly by the age of seven.

CONCLUSION: According to the results of this reported case, the creation of a fixed anterior plaque in the child not only does not cause wounds and discomfort in the child's mouth, but also improves the ability of speech and beauty.

KEY WORDS: *Child, Beauty, Tooth, Plaque.*

Please cite this article as follows:

Alinejad D, Amrollahi N. Report a Case of Beauty Regeneration in a Child with Premature Tooth Decay. J Babol Univ Med Sci. 2019; 21: 122-26.

***Corresponding Author: N. Amrallahi (DDS, MS)**
Address: Dental Research Center, Faculty of Dentistry, Isfahan University of Medical Sciences, Hezar Jarib St., Isfahan, I.R.Iran
Tel: +98 31 37925539
E-mail: narges1amr@yahoo.com

[DOR: 20.1001.1.15614107.1398.21.1.20.5]
[DOI: 10.22088/jbums.21.1.122]

Introduction

Loss of anterior maxillary teeth in children can lead to various complications, including nutritional problems, decrease the vertical height of the face, oral breathing habit, speech impairment, psychiatric problems, abnormal tongue position and prevalence of parafunctional habits and, most importantly, disturbs the beauty of the child's face (1-3).

Another important consequence of the early loss of maxillary molars is the likelihood of a delay in the growth of permanent teeth, which is due to bone and tissue repair of the dense covering of the area. However, the loss of anterior maxillary teeth is common after decay or dental trauma and can be behaviorally responsible for reducing self-esteem, depression of children, and embarrassment among friends, which ultimately lowers the quality of life of the child (4,5). Anterior plaque with artificial teeth can be considered to satisfy the beauty and functional requirements. Acrylic parsil prosthesis have been successful in replacing one or more upper jaw mandibular teeth, with regard to the need for child collaboration in using plaque and probability Losing or damaging such mobile devices can be problematic in preschoolers. Another option is a fixed device with anterior ductile teeth that is fixed with the help of tooth crown on the molar teeth, which is called the Hollywood bridge (6). Since the early loss of anterior teeth in children can positively affect their quality of life in their beauty, in this study, a case of beauty rehabilitation in a child with premature tooth decay is reported using anterior fixed plaque

Case Report

A four-year-old boy with no history of illness and no family history of the disease referred to the Special Clinic of Isfahan Dental School, complaining about the appearance of ugly teeth and inability to chew. In the oral examination, dental caries and normal periodontium were observed (Fig 1). In the first session, after obtaining informed consent from the parents, the health education, brusage and fluorotherapy were introduced to the child. In the next sessions, pulp treatment included pulpotomy and pulpoctomy and SSC coating for all posterior teeth at 10-day intervals. So that each session with two teeth per quadrant was treated. In the central and lateral mandibular teeth, the stripping was done to remove caries. Finally, for the left mandibular canine, complete pulpectomy was performed with metapex and the crown of the tooth was restored with the composite (Fig 2).

Figure 1. Upper and lower jaw occlusal jaw view and anterior view of the child's jaw before treatment multiple dental caries in two jaws represent early childhood caries

Figure 2. Upper and lower maxillary occlusal view and anterior view of the child's jaw after treatment. For the teeth, appropriate treatment was performed and the maxillary anterior teeth were pulled

The anterior maxillary teeth with severe coronary tissue damage due to rot and severe root damage due to repeated abscesses and Fistool left in the last session. After 6 weeks and a full recovery of the wound site of the teeth, the Cord with appropriate sizes (no. 31 MIB) Corporation were applied to the second maxilla molar and fitted well on the teeth surface and molded from the upper jaw with the alginate. The cords were removed from the child's mouth and fixed with the correct direction in the bracket and with the help of wax. The color was chosen for artificial teeth under natural light

[DOR: 20.1001.1.15614107.1398.21.1.20.5]
[DOI: 10.22088/jbums.21.1.122]

and fitted to baby canine teeth. After the child's mouth casts were prepared, the 18-gauge steel wire was soldered to the cords after a favorable fit with a distance of 0.5 mm from the palatal surface. In the anterior portion of the wire, a spiral was formed to create a sufficient retention for acryl. Acrylic teeth have been fixed appropriately and acrylized with pink acryl. Acrylic additions were removed and plaque was raspped. Before cementing the plaque, it was examined for its occlusion and beauty.

The surface of the SSCs of the second molar was roughened to create more retention with the drill, and the plaque was fixed with the help of the Fuji I.GC corporation cement in the mouth (Fig 3). Training was provided to parents to take proper care of the health after each meal. The child was called 24 hours later and then one month later to examine and resolve possible problems.

And there was no wound or complication associated with plaque, fit to cords and plaques was desirable. By the age of seven, he was under regular follow-up and the radiographic examination to evaluate the status of permanent maxillary incisors to come out at the right time spacer.

Figure 3. Occlusal appearance of the upper jaw and anterior view of the child's jaw after the flattened anterior plaque cement

Discussion

The use of fixed anterior plaques in the child not only prevented the child from wounding, but also increased the quality of life by enhancing the child's speech and beauty. There are various types of plaques (fixed or mobile) that should be properly selected based on the age of the child and the type of dental arc and the type of missing teeth (7, 8). AL-Omiri et al. (5) showed that tooth loss has a definite effect on the satisfaction of patients from their teeth.

The greater in number of missing teeth, caused the lower their level of satisfaction with daily living. In a study by Waggoner et al. (9), for replacement of the three anterior teeth, a curved wire resin was used which was consistently soldered to SSC of the first molar teeth. Similarly, Shanmugaavel et al. (10) used the GRASCE to repair a patient's smile so that the resine teeth replacement of the anterior teeth were permanently soldered with the help of curved wire to the SSCs on the first molar teeth.

This method was desirable, but in the event of a possible problem for the first molar teeth, the entire set would be impaired. Khare et al. (4) and Aswanth et al. (11) used the same fixed anterior cementing plaque for the rehabilitation of anterior teeth and first molars, and subject to regular oral hygiene, this method has been identified as an effective way to rehabilitate children's speech and beauty spells.

Marwaha et al. (12) introduced the use of fiber-reinforced composite bridge to rehabilitation of anterior teeth, but there are problems such as the probability of separating and difficult to observance of hygiene. Goenka et al. (13) also used fiber-reinforced composites to replace an Avulsed tooth, which, until the one year's return, provided beauty and function for the baby. Therefore, it seems that the use of this method for single-tooth loss can be efficient and cause less discomfort than a fixed anterior plaque for the child. A fixed anterior plaque prosthetic with semi-fixed position its half-thickness status, in addition to providing beauty and enhancing the quality of life, has the capability of removing by the dentist from the cements and modifying in each stage.

The use of this device is conditional on parents' awareness of how to observe oral hygiene and the full consideration of scheduled examination sessions and monitoring the child to adapt to the device in the mouth

[DOR: 20.1001.1.15614107.1398.21.1.20.5]
[DOI: 10.22088/jbums.21.1.122]

can improve beauty and speech. A fixed anterior plaque after a regular follow-up did not cause wounds and discomfort in the child's mouth and improved the ability to speak and their beauty.

Acknowledgment

Hereby, we would like to thank the School of Dentistry of Isfahan University of Medical Sciences in the progress of this investigation.

[DOR: 20.1001.1.15614107.1398.21.1.20.5]
[DOI: 10.22088/jbums.21.1.122]

References

1.Ayhan H, Suskan E, Yildirim S. The effect of nursing or rampant caries on height, body weight and head circumference. J Clin Pediatr Dent. 1996; 20(3):209-12.

2.Ngan P, Fields H. Orthodontic diagnosis and treatment planning in the primary dentition. ASDC J Dent Child. 1995;62(1):25-33.

3.Woo D, Sheller B, Williams B, Mancl L, Grembowski D. Dentists' and parents' perceptions of health, esthetics, and treatment of maxillary primary incisors. Pediatr Dent. 2005; 27(1):19-23.

4.Khare V, Nayak PA, Khandelwal V, Nayak UA. Case Report: Fixed functional space maintainer: novel aesthetic approach for missing maxillary primary anterior teeth. BMJ Case Rep. 2013;2013. pii: bcr2013009585..

5.AL-Omiri MK, Karasneh JA, Lynch E, Lamey PJ, Clifford TJ. Impacts of missing upper anterior teeth on daily living. Int Dent J. 2009;59(3):127-32.

6.Dean JA. McDonald and Avery's Dentistry for the Child and Adolescent, 10th ed. Elsevier: Mosby; 2016.

7.Padma Kumari B, Retnakumari N. Loss of space and changes in the dental arch after premature loss of the lower primary molar: a longitudinal study. J Indian Soc Pedod Prev Dent. 2006;24(2):90-6.

8.Singh B, Ranadheer E. Aesthetic space maintainer-a cosmetic alternative for pediatric patients-A case report. J Indian Dent Assoc. 2010;2013:12.

9.Waggoner WF, Kupietzky A. Anterior esthetic fixed appliances for the preschooler: considerations and a technique for placement. Pediatr Dent. 2001;23(2):147-50.

10.Shanmugaavel A, Gurunathan D, Sundararajan L. Smile Reconstruction for the Preschoolers Using GRASCE Appliance–Two Case Reports. J Clin Diag Res. 2016;10(8):ZD19-22.

11.Aswanth K, Asokan S, John BJ. Fixed functional space maintainer: A weight gainer: A case report. J Indian Acad Dent Special Res. 2014;1(1):25-7.

12.Marwaha M, Bhat M, Nanda KDS. Building-up a Smile in a 5-Year-Old Child: A Case Report. Int J Clin Pediatr Dent. 2012;5(2):151-4.

13.Goenka P, Sarawgi A, Marwah N, Gumber P, Dutta S. Simple fixed functional space maintainer. Int J Clin Pediatr Dent. 2014;7(3):225-8.

[DOR: 20.1001.1.15614107.1398.21.1.20.5]

[DOI: 10.22088/jbums.21.1.122]