



Lip Bumper for Cleft Lip and Palate Patient: A Clinical Report

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Abstract

Prosthetic rehabilitation is done to regain function, speech and esthetics. This article describes the treatment for a cleft lip and palate patient with collapsed upper lip, post cleft lip and palate surgery. The hollow lip bumper prosthesis was fabricated to provide support for the collapsed upper lip.

Keywords: Cleft Lip, Malocclusion, Mandibular Arches, Lip Bumper.

Introduction

Cleft lip and cleft palate are openings or splits in the upper lip, the roof of the mouth (palate) or both. Cleft lip and cleft palate result when facial structures that are developing in an unborn baby doesn't close completely.

During intricate rehabilitation of cleft lip and palate patients, the final phase is achieved with definitive prosthodontic treatment. Prosthodontic rehabilitation is often necessary due to missing teeth and the alveolar ridge, malocclusion, residual defects, and the discrepancy between maxillary and mandibular arches.

Clinical Report

A 21 year old male patient reported to Department of Prosthodontics, Coorg institute dental sciences, Coorg, India. The patient presented a complaint of collapsed upper lip (fig:1). He also presented a complaint of missing anterior teeth. Extra oral examination reveals collapsed upper lip. Intra oral examination reveals missing maxillary central and lateral incisors, and

narrow hard palate (fig:2). On occlusion patient has a Angles class 3 malocclusion (fig:3)

Fabrication of the Prosthesis

Removable partial denture was fabricated with heat cured polymerizing resin (DPI, India) in the definite cast for maxillary arch (fig:6). The prosthesis was tried in patient mouth. Modelling wax was placed in the defect area over the labial flange of the prosthesis. The wax was added till the lip support is adequate from an esthetic point of view (fig:4). The lip bumper with the prosthesis was tried in the patient mouth to verify the displacement of the lip bumper during lip movements (fig:5).



Figure 3: In occlusion



Figure 4: wax up of the lip bumper



Figure 5: Teeth trial along with lip bumper



Figure 6: final finished and polished lip bumper(occlusal view)



Figure 7: frontal view of lip bumper



Figure 1: Lateral view with collapsed lip



Figure 2: intraoral view



Figure 8: Insertion of lip bumper



Figure 9: In occlusion



Figure 10: post insertion extraoral view

Discussion

The treatment modalities for bony defect in mandibular and maxillary arch are surgical and nonsurgical methods. The nonsurgical method includes bumpers to attain esthetics. The lip bumper is simple functional appliance and usually well tolerated by the patient (1). A modification in lip bumper prosthesis was fabricated by Mukohyama et al (2). This prosthesis restored the lost lip support due to cleft lip. This also reduced the incidence of lip biting and improved the lip competency (fig:10). This prosthesis was fabricated with heat polymerizing resin retained with four C clasps (fig:6). Even though

four anterior teeth were missing (two central incisors and two lateral incisors) only two anterior teeth could be replaced (two central incisors) due to limited space available. In this technique a full thickness bumper was avoided to reduce extra weight to the prosthesis (fig:7).

Summary

Prosthetic rehabilitation is done not only to regain the function and speech but also to attain esthetics. Lip bumpers are nonsurgical method of managing bony defects in anterior region. Clinically Lip bumper supports the lips to give good esthetics and better confidence to the patient (1).

References

1. V. Ashok, Deepak Nallaswamy, S. Benazir Begum, Thiyaneswaran Nesappan (2013) Lip Bumper Prosthesis for an Acromegaly Patient: A Clinical Report. J Indian Prosthodont Soc 14(1) S279–S282
2. Mukohyama H, Kadota C, Ohyama T et al (2004) Lip plumper prosthesis for a patient with a marginal mandibulectomy: a clinical report. J Prosthet Dent 92:23–26
3. Korn M, Melson B (2008) Early treatment with a maxillary lipbumper-bite plateau combination. Angle Orthod 5:8
4. Goswami R, Brar AD, Dhingra S (2012) Prosthetic rehabilitation of hemi-maxillectomy patient—a case report. Int J Dent Clinics 4(2):52–54
5. Schneider Aaron (1978) Method of fabricating a hollow obturator. J Prosthet Dent 4.