CASE REPORT

The Flexible Party Gums: An Esthetic Alternative for Lost Gingiva

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ABSTRACT

One of the most important parts of an ideal smile is the presence of healthy gingiva. Healthy gingival tissues affect the esthetics, probably much more than teeth, a factor which is most often neglected in esthetic treatment planning. Periodontal flap surgeries often leave open embrasure spaces which are a huge esthetic deficit for the patient. Replacing the missing gingival tissue with composite, ceramic, acrylic or silicone has been reported in the literature. This case report describes the use of a gingival prosthesis fabricated by valplast—a flexible nylon-based material to recreate the lost soft tissue esthetics.

Keywords: Gingival prosthesis, Party gums, Black triangles, Gingival veneer, Gingival epithesis.

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INTRODUCTION

The principal aim of esthetic dental treatment is to enhance the patient's smile by improving the overall dentogingival appearance. Health of gingiva constitutes the 'pink component' of smile which is equally important as the 'white component'.¹ Periodontal attachment loss in the maxillary anterior region can often lead to esthetic and functional clinical problems including disproportional and elongated clinical crowns, visible interdental embrasures, unsightly 'black triangles', sensitivity of teeth and altered linguoalveolar-labiodental consonant sounds production.² Black triangles were rated as the third most disliked esthetic problem below caries and crown margins.³ Gingival recession on isolated teeth can be corrected by root coverage procedures. But when periodontal attachment loss is present on multiple adjacent teeth, restoration of the position of gingiva even by

regenerative periodontal procedures is not possible. Party gums (gingival mask or gingival veneer or gingival epithesis) fabricated in acrylic resin, silicone or copolyamide have been reported in the literature and are a suitable alternative in such cases.

Valplast is a nylon-based, thermoplastic, pressure injected, flexible denture base material that are ideal for partial dentures and unilateral restorations.⁴ Its advantages are its flexibility, its ability to blend with adjacent gingival tissues, monomer free content.

This case report describes the use of Valplast—a flexible denture base material for the fabrication of gingival prosthesis.

CASE REPORT

A 25-year-old female patient reported to the department of prosthodontics with a chief complaint of spacing between upper front teeth and loss of gums. The patient gave a history of periodontal surgery 3 years back, which resulted in the loss of interdental and marginal gingiva of maxillary and mandibular anterior teeth (Fig. 1). The oral hygiene was determined to be fair and the periodontal health was stable. Due to the involvement of multiple teeth, surgical correction was not considered and a gingival prosthesis for maxillary anterior teeth was planned. It was decided to fabricate the gingival prosthesis form Valplast which will give better fit and will also be flexible.

A diagnostic impression of maxillary arch was made using irreversible hydrocolloid impression material (Tropi-calgin, Zhermack, Rovigo, Italy) and was poured in type III

Fig. 1: Loss of gingiva secondary to periodontal surgery

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Fig. 2: Trial of custom tray

Fig. 3: Border molding

Fig. 4: Final impression

Fig. 5: Wax-up

dental stone (Goldstone, Asian Chemicals, Rajkot, Gujarat, India). A custom tray was fabricated using autopolymerising acrylic resin (Acralyn 'R', RR Rapid Repair, Asian Acrylates, Mumbai, Maharashtra, India) over the labial surfaces of teeth and gingiva till the mucolabial reflection after blocking the interdental spaces from palatal side on the preliminary cast. The custom tray tried in the mouth and practiced for orientation (Fig. 2). Tray was trimmed 2 mm short of the mucolabial reflection. Border molding was carried out using low fusing impression compound (MAARC Tracing sticks, Shiva products, India) for achieving a proper border seal (Fig. 3). The impression was made using addition silicone medium bodied impression material (Aquasil Monophase, Dentsply, York, USA) (Fig. 4). The tray was seated in place and it was allowed to set. After the impression material was set, the material that flowed in the embrasures from palatal side was trimmed out with scissors so that the impression could be easily removed. The impression was removed and poured with type III dental stone. Modelling wax was added to exact shape of the final prosthesis on the final cast (Fig. 5). Flasking of the wax-up was done and Valplast was injected at the stage as suggested by the manufacturers. After recovery of gingival prosthesis from

the flask, it was finished and polished, and was delivered to the patient (Figs 6 to 8).

The patient was instructed for use of prosthesis as well as maintenance of oral hygiene. The patient was asked to soak the Valplast party gums in water for 10 to 15 minutes a day, or overnight at least three times a week. She was advised to avoid brushing the appliance as this may remove the polish and roughen the surface over time. The patient was quite happy with the esthetics achieved with the Valplast party gums.

DISCUSSION

Loss of gingiva can be treated with periodontal surgical procedures or prosthetic replacements. Surgical procedures are invasive, irreversible, technique sensitive, expensive, with results that are often unpredictable.⁵ Gingival prosthesis have historically been used to replace lost tissue when other methods (e.g. surgery or regenerative procedures) were considered unpredictable or impossible.⁶ Brygider RM,⁷ in 1991, described fabrication of precision attachment retained gingival acrylic veneers for fixed implant prostheses. Greene PR,⁸ in 1998, described two-stage impression techniques for construction of two identical masks. Autopolymerizing resins

Fig. 6: Final prosthesis in place

Fig. 7: Pretreatment smile

Fig. 8: Post-treatment smile

have the disadvantages of being brittle, inherent opacity, tendency to discolor and the residual monomer content. Heat-processed acrylic resins have the disadvantages that they require bulk for strength and being brittle. The most common disadvantage of using silicone as a flexible gingival mask is its tendency to discolor. None of the reports published in the literature reported the use of Valplast as a gingival prosthesis material. Valplast blends in well with the natural appearance the gingiva, making gingival prosthesis virtually invisible. The plastic has almost a chameleon effect, it is so strong that it can be made very thin and also picks up the characteristics of the underlying tissue.⁴

CONCLUSION

In patients with periodontal attachment loss, gingival deformities are often seen that lead to esthetic and phonetic problems. Flexible party gums are a feasible option in such cases. With the improved esthetics, patients can smile again without the fear of 'black triangles'.

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