Turn up your smile by gingival masks - A prosthetic approach: Case report

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Abstract
The periodontal attachment loss, gingival recession and loss of interdental papilla in the maxillary anterior region can often lead to esthetic and functional clinical problems. It becomes a challenge for the dentist to provide an esthetic solution for the missing gingival tissue and to maintain hygiene. Reconstruction of these areas can be done with the gingival mask which is a removable prosthesis used to replace lost gingiva or to hide black triangle spaces between teeth creating an esthetic replacement.

Keywords: Gingival mask, Black triangle spaces, Removable prosthesis, Esthetics.

1. Introduction
Dental esthetics is combination of teeth as well as pink coloured gingivae. Periodontal diseases, surgeries, trauma, ridge resorption and traumatic tooth extraction can result in open interdental spaces, elongated clinical crowns and altered labiodental, labioalveolar consonant sound production [1]. The reconstruction of these areas with prosthesis like gingival veneer can be useful to correct the deformities remaining after the control of periodontal diseases, especially in the maxillary anterior region [2]. This clinical report describes the fabrication of an Artificial Gums / Party Gums Gum Mask / Gingival Veneer /cosmetic veneer.

1.1 Case report
A 40 year old female patient reported to the Department of Prosthodontics, Subharti Dental College and Hospital with the chief complaint of receding gums and black triangles formation in relation to maxillary anterior teeth (Fig.1). The patient was also very unhappy with the esthetic appearance of the “elongated teeth”. Since surgical treatment in such situations is costly, requires prolonged healing time, patient was not ready for surgical treatment, so decision was made to fabricate a removable prosthesis to close the spaces between the anterior teeth.

1.2 Treatment
Periodontal therapy including scaling and root planning (two sittings at one week interval) along with oral hygiene instructions were given. Then the patient was referred to prosthodontic department of subharti dental college. The treatment of choice for esthetic benefit of the patient was gingival veneer.

Procedure- on intraoral examination, severe undercuts were blocked out interproximally with wax from the lingual aspect so that the acrylic resin gingival veneer would only cover the labial and buccal embrasures. Alginate maxillary impression was taken in a perforated stock tray, and a cast was poured in type 1V dental stone. The cascade was waxed up exactly as it is to appear and tried in the patient’s mouth for its adaption (Fig. 2). Heat cure acrylic resin that is poly methyl methacrylate (Trevlon HI) along with extrinsic stains and fibres to simulate the gingiva was packed in the conventional manner. After curing, deflasking is done and prosthesis is trimmed slightly to remove excess material and then it was tried and adjusted in patient mouth Fig. 3 and 4). The patient was given instructions on the use and maintenance of the mask.
Retention was achieved with minor inter-proximal undercuts as well as undercuts on the distal surfaces of the cuspids. The prosthesis was extremely thin and had enough flexibility to engage these undercuts. The patient found the prosthesis very comfortable.

2. Discussion
Periodontal disease progression, pocket elimination procedures and resective osseous surgeries often lead to creation of recession and the potential for a compromised esthetic outcome, especially in the maxillary anterior region [1]. Gingival defects may be treated with surgical or prosthetic approaches. With successful surgical treatment, the result mimics the original tissue contours. Such treatments include minor procedures to rebuild papillae and grafting procedures that may involve not only soft-tissue manipulation, but also bone augmentation to support the soft tissue. It is possible to create aesthetically pleasing and anatomically correct tissue contours when small volumes of tissue are being reconstructed, but this method is unpredictable when a large volume of tissue is missing [2]. Prosthetic approach can be removable/fixed gingival prosthesis by using different materials such as pink cold/heat cure thermoplastic acrylics, composite resins, porcelains and silicone based soft materials that are more predictable approach to replace lost tissue architecture [1]. The term “artificial resin gum mask” was used by Schweitzer (1960) to describe the fabrication of a gingival coloured rigid acrylic prosthetic device, which is to be worn by the patient to mask defects caused by periodontal disease and therapy [4].

Conditions that might warrant the use of a gingival mask include:

- **Black spaces**: loss of gum papilla — the tiny triangle of gum that extends down between teeth — results in unsightly black spaces or triangles that make the smile less attractive.
- **Receding gums**: gum disease, aggressive brushing, grinding and other issues can cause gums to recede or pull away from the teeth.
- **Stains or dark pigmentation**: smoking, genetics, poor oral hygiene and other factors can lead to gum discoloration.
- **Exposed margins**: metal margins on veneers, implants and crowns may appear as a black line over the teeth.
- **Damage to gum tissue**: trauma or surgery can result in significant loss of gum tissue

Advantages of Gingival Masks [5]
- One of the biggest advantages of a gingival mask is that it is a low-cost way to aesthetically improve the smile and phonetics and prevents the food impaction.
- The appliance is soft and flexible and easily snaps into place. Fitting a patient for the device requires only a simple dental impression that is then used to create a custom-fit mask.

Disadvantages of Gingival Masks
- Gingival masks are only a temporary fix, not a long term solution and loss of durability,“
- It’s important to remove the mask before brushing and flossing, and also before eating

Contraindications [5]
Include poor plaque control, unstable periodontal health, high caries activity and heavy smoking, since food can easily become trapped behind it.

3. Conclusion
With the aid of the acrylic resin gingival veneer, the esthetic and phonetic characteristics of the anterior maxilla can be
improved when loss of periodontal support is evident. Removable gingival prosthesis are a good treatment option in advanced tissue loss, achieving esthetic results and patient satisfaction. Since, these prosthesis are a temporary solution to the problem, we are still in search for the permanent.

4. References