LIP REPOSITIONING – A CASE REPORT

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INTRODUCTION –

Restorative dentistry is one of the biggest fields within dentistry. One objective of restorative dentistry is to create ideal esthetics for the patient's smile and catering to the patient's want. Delayed eruption as a cause of excessive gingival display and its treatment by esthetic crown lengthening are well documented.[1,2]

Soft and hard tissue resection is an effective method to restore normal tooth dimensions and dentogingival relationships. The objective of lip repositioning is to minimize the gingival display by limiting the retraction of the elevator smile muscles (eg, zygomaticus minor, levator anguli, orbicularis oris, and levator labii superioris). This is accomplished by removing a strip of mucosa from the maxillary buccal vestibule and creating a partial-thickness flap between the mucogingival junction and the upper lip musculature. The lip mucosa is then sutured to the mucogingival line, resulting in a narrower vestibule and restricted muscle pull, thereby reducing gingival display during smiling. This procedure was originally described in the plastic surgery literature 30 years ago.[3] The present case report describes a lip repositioning surgery which was performed to correct the excessive gingival display in the patient's mouth.

CASE HISTORY –

A 21 year old female patient reported to the department of Periodontics and Oral Implantology, DY Patil School of Dentistry. She came with the chief complaint of a gummy smile and sought treatment for the same. The patient's medical history was clear, and there were no contraindications to surgical treatment. On clinical examination, an exaggerated smile was seen, the patients teeth and gingiva was visible from maxillary right first premolar to maxillary left second premolar, with 5-6 mm of excessive gingival display with a normal maxillary anterior anatomic proportions. Informed consent was taken prior to starting the surgical procedure.

Pre-operative measurements were made to check the smile line (which was measuring around 9 mm) (Fig. 1). Local anaesthetic (Xylocaine 2% with epinephrine, 1:100,000) was administered in the vestibular mucosa and lip from maxillary right to left first molar. A marking pencil was used to outline the incisions on the dried tissues (Fig. 2). A partial-thickness incision was made at the mucogingival junction from the right first molar to the left first molar, second partial thickness incision was made parallel to the first incision in the labial mucosa, 10–12 mm apical to the mucogingival junction. The incisions were connected at each first molar creating an elliptical outline of the incisions. The epithelial layer was been removed, leaving the underlying connective tissue exposed (Fig. 3). Care was taken to avoid damaging minor salivary glands in the submucosa. Local anaesthetic was used to control bleeding. The parallel incision lines were approximated with interrupted sutures (vicryl 4-0) at the midline and other locations along the borders of the incision to ensure proper alignment of lip midline with the midline of the teeth. Then interrupted sutures were continued on the either sides to approximate both flap ends (Fig. 4).

Non steroidal anti-inflammatory drugs (Ibuprofen 600 mg 3 times daily for 3 days) after surgery. Post-operative instructions were given to the patient including ice pack application, minimize lip movements when smiling and talking for 1 week. Post-operative healing occurred with minimal of ecchymosis and discomfort. The patient reported pain when smiling after surgery for 1 week . Sutures were removed 2 weeks later. The sutures line healed in the form of scar that was not apparent when the patients smiled, because it was concealed in the upper lip mucosa. 2 weeks later showed reduction in patient's excessive gingival display. 1 month follow up was done and the healing was adequate and the gingival display had adequately reduced. (Fig. 6)

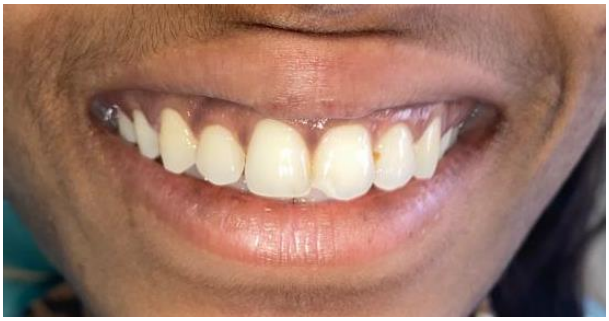

FIGURE 1 – PREOPERATIVE SMILE

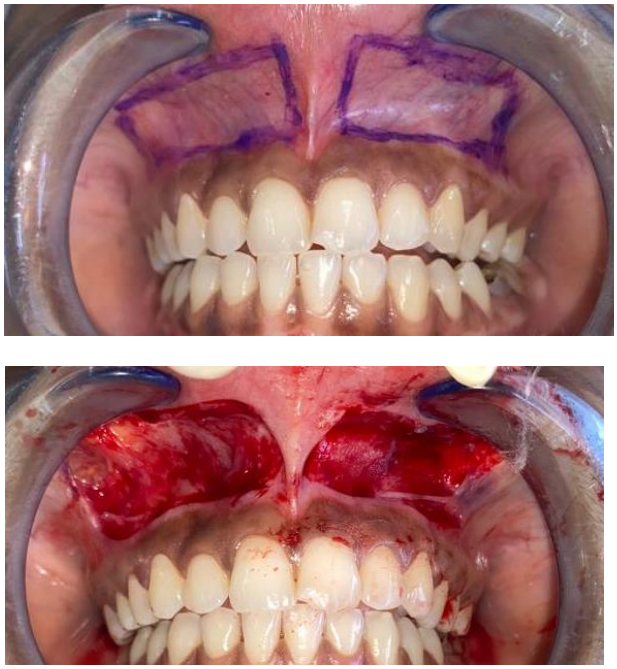

FIGURE 3 – INCISIONS GIVEN

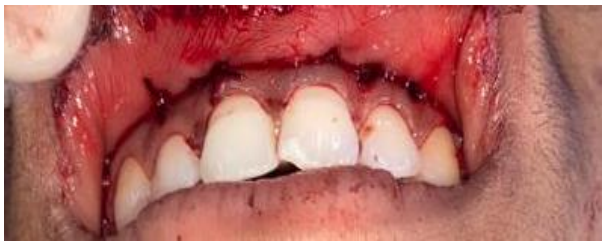

FIGURE 4 – PERIOSTEAL SUTURING

FIGURE 5 – TWO WEEKS FOLLOW UP

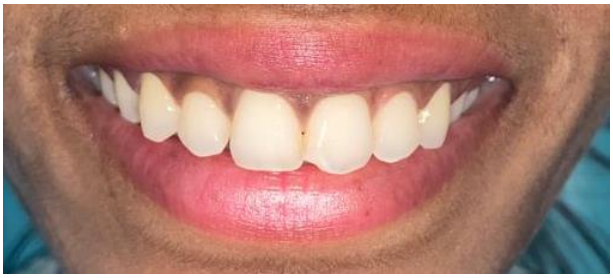

FIGURE 6 – ONE MONTH FOLLOW UP

DISCUSSION –

This clinical report describes the use of lip repositioning for the reduction of excessive gingival display. The procedure is safe and has minimal side effects. Reports in the literature have shown postoperative bruising, discomfort, and swelling of the upper lip to be minimal.[4] In this present case, the patient experienced minimum discomfort and swelling. There was no post operative bruising noticed as such. This clinical report describes the use of lip repositioning for the reduction of excessive gingival display. For an excessive gingival display according to VME classification degree II, III orthognathic surgery is preferred.[5]

But in patients who are not willing for orthognathic surgery an alternative treatment is lip repositioning. This technique is an easy and less time consuming cost-effective way to give satisfactory results to the patient.

Contraindications of lip repositioning includes minimal zone of attached gingiva, thereby creating difficulties in flap design, stabilization and suturing, and severe vertical maxillary excess.

CONCLUSION –

Lip repositioning has been developing as an effective way to improve the gummy smile of a patient. This technique is an easy and less time consuming cost-effective to give satisfactory results to the patients. It minimizes gingival display by placing the upper lip in a more coronal position. The evidence gives stable results in patients who are not willing to undergo orthognathic surgery. However, proper diagnosis and case selection are the important factors in the successful outcomes.

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