*IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*
*e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 19, Issue 5 Ser.12 (May. 2020), PP 46-48*
*www.iosrjournals.org*

# Lip Repositioning: Approach To an Aesthetic Smile: Case Report

Tanushree Sharma [a], Kamlesh Singh [b], Parijat Chakraborty [c]
[a] *Post Graduate student, Department of Orthodontics and Dentofacial Orthopedics, Saraswati Dental College, Lucknow, India.*
[b] *Professor, Department of Orthodontics and Dentofacial Orthopedics, Saraswati Dental College, Lucknow, India.*
[c] *Post Graduate student, Department of Orthodontics and Dentofacial Orthopedics, Saraswati Dental College, Lucknow, India.*
***Corresponding Author: -** Dr. Tanushree Sharma, Post Graduate Student, Department of Orthodontics and Dentofacial Orthopedics, Saraswati Dental College, Lucknow- 227105, India.*

***Abstract:*** *An aesthetically pleasing smile is the demand of majority of the patients seeking orthodontic treatment nowadays. Not only the aligned teeth, but various other components also plays vital role in developing the pleasing smile. Adequate gingival exposure is one of the contributory factors. Lip repositioning is an alternative treatment approach for the correction of excessive gingival smile. Present case report to reduce gingival display by orthodontic treatment followed by lip repositioning procedure.*

***Keywords:*** *Gingival exposure; Lip lengthening; Lip repositioning; Aesthetics*

---

Date of Submission: 11-05-2020 Date of Acceptance: 23-05-2020

---

## I. Introduction

An enticing smile enhances the confidence in an individual and plays vital role in one's life.[1] According to a survey by American Academy of Cosmetic Dentistry; first noticeable positive impression in a person is the attractive smile. [2] The aesthetic of smiling depends upon three anatomical components i.e, gums, teeth and lips. These components should be in harmony to develop a perfect normal smile.[3]

Gingiva being one of the major factors for a pleasant smile should be displayed proportionately. Normal gingival display for an enticing smile is 2-3 mm. Excessive extent of gingival exposure results in 'gummy smile'.[4] One of the various causes that lead to gummy smile comprises of vertical maxillary excess, anatomically short lip, late migration of gingiva and short clinical crowns. [5] Different treatment modalities are available to treat each kind of etiology. Lip repositioning is one of the treatment objectives with less complications and minimal invasion.[6] The present case report demonstrated the use of lip repositioning to reduce excessive gingival display in a patient underwent orthodontic treatment.

## II. Case Report

A patient with initials SK aged 23 years female came to our department with the chief complaint of forwardly placed teeth and display of gingival during smiling. On clinical examination there was an edge to edge bite in the anterior region. As an ideal treatment plan, orthognathic surgery was discussed with the patient, but patient denied. So, a second treatment plan which was a camouflage option was put forward in which premolar extraction was followed by lip repositioning procedure which was well accepted by patient and her parents. Soon, after the consent, the patient's pre treatment records were obtained and 0.022" MBT prescription was used for bonding both the arches. The orthodontic treatment was completed in one and half years with an ideal overjet and overbite. But as expected it there was no decrease rather increased gingival display due to maxillary anterior retraction. The gingival display after orthodontic treatment completion was 8-10 mm. Thereafter, Lip repositioning procedure was carried out in collaboration with the oral surgeon.

**Procedure**

Patient was tested medically fit with no periodontal disease or apparent pathology and all the vital tests performed prior to lip repositioning were found to be normal. The area of interest for surgery was sterilized and prepared for the surgical procedure. Local anesthesia was used to anesthetize the surgical site between first molars along with local infiltration administered in buccal vestibule. Two incisions were made which were connected posteriorly at the extent of first molars. One incision was placed at the mucogingival junction and second incision 10 mm above the first incision. Subsequently, the amount of tissue thickness excised was double the amount of gingival display keeping in mind the overcorrection required to reduce the risk of relapse. V-y closure followed by three point closure was performed to give pronounced look to the lip. Care was taken for

the proper coinciding of midlines of the lip and dental arch. After stabilizing the flap, continuous interlocking sutures were used to secure the complete closure.

## III. Result

The gingival display reduced appreciably after the surgical procedure. No complication was recorded. Marked reduction of 4-5mm was noticed with 3mm gingival display remaining as measured 2 weeks after the surgery. Follow up was done and the results were stable even after 6 months of surgery.

## IV. Discussion

According to Kokich et al, [7] an excessive lip to gingiva distance if more than 4 mm classified as unattractive by layman and general dentists. Many etiological factors attributed to gummy smile and a proper smile evaluation is necessary for better treatment planning. The present case showed 8-10 mm of gingival display after orthodontic treatment. As patient refused to undergo surgical treatment, a less invasive lip repositioning approach was suggested to the patient as a camouflage alternative. Various authors successfully treated the gummy smile patients with the lip repositioning procedure and demonstrated positive and stable results even after 6 months follow up. Rubenstein and Kostianovsky, [8] excised an elliptical portion of gingiva and buccal mucosa and sutured the approximated borders to treat gummy smile which was one of the first evident literature on lip repositioning. Now many evidences were seen in the literature that used lip repositioning method for efficient reduction of gummy smile.

Simon et al [9] used a very similar approach to treat gummy smile and concluded that the lip repositioning is an effective way of reducing excessive gingival display. Jacobs et al [10] showed in their study that the mean reduction of gingival exposure after lip repositioning was 6±1.5 mm.

The present case report reveals positive results with reduction of 6 mm of gingival display after 6 months of surgery. The patient was satisfied with the treatment with no other complaints.

## V. Conclusion

Lip repositioning procedure is undoubtedly an efficient method for the treatment of excessive gingival exposure but the stability of the approach depends upon the proper diagnosis and planning. After all we can conclude by saying that any procedure with appropriate planning and performed in an appropriate way will always give excellent results.

## References


[1]. Oliveira MT, Molina GO, Furtad A, Ghizoni JS, Pereira JR. Gummy smile: A contemporary and multidisciplinary overview. Dental Hypotheses 2013;4(2):55-60.
[2]. Academy of Cosmetic Dentistry, Study Reveals Keys to Memorable First Impressions by AACD Executive Office ;2015: https://aacd.com/express/newsviewpost&id=8005
[3]. Izraelewicz-Djebali E, Chabre C. Gummy smile: orthodontic or surgical treatment? J Dentofacial Anom Orthod 2015;18:102.
[4]. E. Dilaver, S. Uckan: Effect of V–Y plasty on lip lengthening and treatment of gummy smile. Int. J. Oral Maxillofac. Surg. 2017; xxx: xxx–xxx.
[5]. Dayakar M M, Gupta S, and Shivananda H.Lip repositioning: An alternative cosmetic treatment for gummy smile. J Indian Soc Periodontol. 2014 Jul-Aug; 18(4): 520–523.
[6]. Muthukumar S, Natarajan S, Madhankumar S, Sampathkumar J. Lip repositioning surgery for correction of excessive gingival display. J Pharm Bioall Sci 2015;7, Suppl S2:794-6.
[7]. Kokich VO, Kokich VG, Kiyak HA. Perceptions of dental professionals and laypersons to altered dental esthetics: A symmetric and symmetric situations. Am J Orthod Dentofacial Orthop. 2006;130:141–51.
[8]. Rubinstein AM, Kostianovsky AS. Cirugia astetica de la malformacion de la sonrisa. Pren Med Argent 1973;60:952.
[9]. Simon Z, Rosenblatt A, Dorfman W. Eliminating a gummy smile with surgical
[10]. lip repositioning. Journal of Cosmetic Dentistry, spring 2007;23(1):100-108.
[11]. Jacobs PJ, Jacobs BP. Lip repositioning with reversible trial for the management of excessive gingival display. Int J Periodontics Restorative Dent. 2013;33:169–75.


**FIGURES WITH RESPECTIVE LEGENDS**

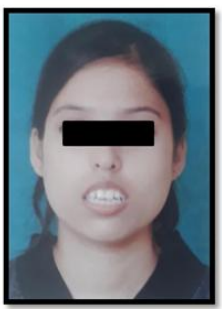

**Figure 1A: - Pre- Treatment Frontal view photograph**

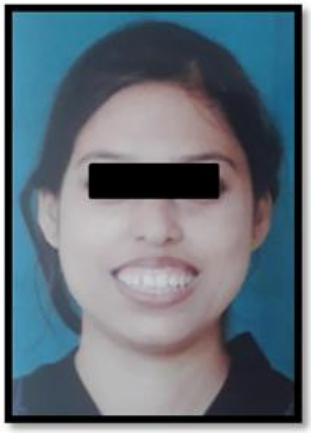

**Figure 1B: - Pre- Treatment Frontal smile view photograph**

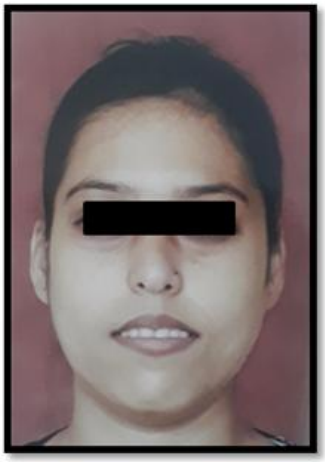

**Figure 2A: - Post- lip augmentation frontal view photograph**

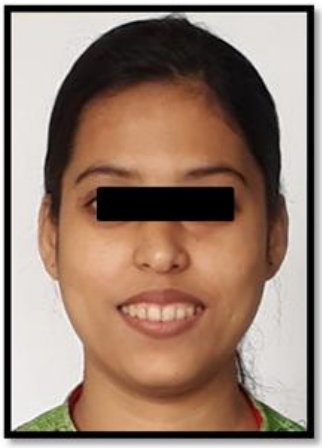

**Figure 2B: - Post- lip augmentation frontal smile view photograph**

Dr. Tanushree Sharma, et. al. "Lip Repositioning: Approach To an Aesthetic Smile: Case Report." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 19(5), 2020, pp. 46-48.