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The beauty in facial esthetics: Gummy smile and options of treatment



Gummy smile is defined as exposure of a large amount of gingival tissues it is also known as a high lip-line. Numerous factors attribute to the gummy smile condition, such as; hyperactivity of the Orbicularis Oris muscle, altered passive eruption and reason connected to the dentogingival complex.^{1–3} Additional factors determine the smile-line like the form and volume of the lips, the facial muscles, the teeth, and the gingival tissue. The ideal situation for an esthetic smile is the exposure of minimal gingival tissues with normal teeth height and a good balance with the upper lip.³

As the facial esthetics can be severely affected by the gummy smile, consideration of the available options of treatment is a must to adjust the condition but only upon the patient request. One of the earliest ways to correct this problem was to undergo Orthognathic surgery to reposition the front segment of the upper jaw when the patient has a basal bone deformity.¹ However, because of the surgical difficulty, the pain, the hospitalization, and the intrinsic complications, patients are not enthusiastic to go through this treatment.^{4,5}

Accordingly other treatment alternatives were established, which are less painful and less expensive. Lip repositioning procedure is one of these procedures⁶; it is a possible and inexpensive option of treatment. It is a relatively simple approach where by repositioning of the upper lip to a lower position with some minor periodontal cosmetic surgery minimizes the appearance of a high lip line.^{7,8} The procedure is performed under local anesthetic and involves the surgical re-attachment of the gingival tissue under the lip to restrict the extent that the lip can go excessively upward when smiling. The result of this procedure is very satisfying to the patient.^{6–9}

Gingivectomy is another approach of treatment. However, Gingivectomies can only be performed when reduction of gingival tissues is minimal. The tissue is removed with gingivectomy knives, # 15 blades, dental laser or by radiosurgery. The advantages of this technique include; reduced pain, no sutures, and fast healing.^{10–12}

However, when extensive reduction of the tissue is required then crown lengthening procedures are the treatment of choice.^{10,12} In this technique, contouring of the gingival tissues around each individual tooth with the accompanying bone is done followed by repositioning of the gingival tissues to the new position using sutures. The sutures are then removed after 7–10 days.^{10–12}

Although gingivectomy and crown lengthening procedures are not as invasive as the other surgical procedures, however, the move to a less invasive treatment options in esthetic Dentistry was required. This led to the use of Botox in dental Esthetics.¹³ Botox was used primarily for smoothing wrinkles of the forehead, the glabellar region and around the corners of the eyes.¹³

Seven to eight percent of North American dentists provide Botox treatment to their patients as a part of cosmetic treatment.¹⁴ The significant adjunctive therapy that Botox adds to the esthetics dental treatment is a fact lacked by many dentists. Botox is a muscle relaxer and when used in the upper lip it can significantly decrease the strength of the muscle contractions that cause the high lip line.¹³

The non-surgical approach of using Botox to treat gummy smile is one of the advantages of this approach. Botox weakens the Orbicularis Oris muscle so they cannot raise the lip as high as before. This procedure is technique sensitive, as the patients should maintain full lip competency allowing them to speak, smile, and eat normally.^{13,14}

As dentists, it is very important to present all options of treatments for gummy smile to the patient. Advantages and disadvantages of all options should be explained carefully to the patients as well. The advantages of the surgical treatment options of orthognathic surgery, such as lip repositioning and crown lengthening, are permanent esthetic results. The disadvantages are the frequency of the appointments, the high cost, possible complications of treatment including sensitivity, recession and possibility of endodontic therapy later on.^{6–9}

The advantages of treatment with Botox and dermal fillers are immediate results with no removal of tooth structure. The disadvantages include; re-treatment 2–3 times a year and the cost associated with that treatment.¹⁵ In conclusion; patients with gummy smile can be safely, simply, and successfully treated (when indicated) in the dental office. Although, different

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options of treatments are available and it makes no difference what type of treatment the patient chooses, however, the dentist exposure to the different available treatment approaches significantly expands the treatment choices we provide to the patients.

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