

Anterior Dental Aesthetics & Depigmentation.- Case Report



Medical Science

KEYWORDS: Gingival pigmentation, Anterior esthetic crown lengthening, Gingival depigmentation.

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ABSTRACT

A smile expresses a feeling of joy, affection & reveals self confidence & kindness. Pleasing smile has an important part of gingival tissue form. "Black gums & Disproportionally small teeth are the major esthetic concern of the young patient visiting dentists. Melanin hyper-pigmentation does not show any medical problem but patient complains of black gums. Aesthetic periodontal surgery gives opportunity to the patient to get rid off with "black gums & gummy smile." It helps to boost patient's confidence & improves esthetics. A case is reported here on the cosmetic correction of "Black Gums" and "Uneven Smile Line." Aesthetic periodontal surgery combining gingival depigmentation and anterior esthetic crown lengthening was performed in a single appointment using scalpel.

Introduction:

Aesthetics is an inseparable part of today's dental treatment. Melanin pigment is the most common cause of endogenous pigmentation of gingiva and is the most predominant pigmentation of mucosa. Melanin hyper-pigmentation does not show any medical problem but patient complains of black gums & may cause aesthetic problems & embracement. Gingival depigmentation is the procedure to remove pigmented gingival epithelial layer. There are different techniques like scalpel surgical technique, cryosurgery, electrosurgery, lasers.

Excessive gingival display due to altered passive eruption can be corrected with aesthetic periodontal surgery. A variety of periodontal surgical procedures can be utilized for the purpose of aesthetic crown lengthening, to reduce the display of excessive gingiva and correct uneven gingival contour.

Case Report:

A 20 year old female patient was referred to the department of Periodontology, Bharati Vidyapeeth Dental College & Hospital, Pune with the chief complaint of 'black gums & uneven smile line.' On examination, History revealed that the patient is student of engineering college & is very shy to interact with people. On examination it was found that apart from increased melanin pigmentation the important reason for display of "black gums" is excessive gum display with upper teeth, which was present from the childhood. After oral prophylaxis the patient was recalled after 7 days for the aesthetic crown lengthening and depigmentation procedure. Approximately 2-3 mm of excessive gingival tissue was observed on the maxillary anterior teeth in relation to the cemento-enamel junction (CEJ). In addition, the anterior teeth presented an unsatisfactory gingival contour and crown size discrepancies (Fig. 1).



Fig 1-PRE OPERATIVE VIEW

The treatment plan included aesthetic crown lengthening to reduce the gingival display & to increase the height of the crown & depigmentation to reduce gingival hyper pigmentation. Under sterilized condition local anesthesia was given to the patient (2% lidocaine with 1:100,000 epinephrine); careful probing of the sulcus and bone sounding was done to provide accurate information as to the depth of the gingival sulcus complex, markings were made with the help of probe from canine to canine. Reverse bevel incision was given over the markings with blade no. 15, the Discontinuous incision starts from the marginal gingiva of the canine & then goes by attaching the bleeding points with blade edge at 45° angle with the root surface in scalloped pattern. (Discontinuous incision- starts from the distal surface of one tooth & extends to the distal surface of the adjacent tooth, then it starts from this incision in the interdental area bisecting the first incision & then it goes forward to the distal surface of the adjacent tooth & so on) and the excised mass was removed. Partial thickness flap was excised for depigmentation using Scalpel with the scraping technique given by Hirschfeld & Hirschfeld, Dummett and Bolden. The surface was irrigated with saline. Pause injection pack i.e. pause injection was taken over the cotton & it was used to control the bleeding. (Fig. 2)



Fig 2- AFTER CROWN LENGTHNING AND DEPIGMENTATION VIEW

Post operative instructions & analgesics are given. Patient recalled after 7 days & after 1 month for check-up.(Fig. 3). Healing was satisfactory with considerable improvement in aesthetics.

Fig 3- POST OPERATIVE VIEW AFTER 3 MONTHS

**Discussion:**

The primary goal of aesthetic dental treatment is the restoration of natural, healthy, and aesthetic appearance. The appearance of healthy gingiva is an essential component of a pleasing smile. Successful treatment is always dependent upon accurate diagnosis and well-drafted treatment plan involving other disciplines of dentistry.

Conclusion:

The results were excellent at 3-month follow-up period. There was no evidence of repigmentation of the gingiva resulting in improved aesthetics. The anterior aesthetic crown lengthening combined with the depigmentation procedure described above, offers a practical technique to dramatically improve patient aesthetics. It is an innovative aesthetic surgery which gives good aesthetic results & an efficient way to treat excessive gingival display. Aesthetic periodontal plastic surgery is a boon in patients having dark gums and uneven smile line.

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