

CASE REPORT

Gingival Depigmentation - A Case Report

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ABSTRACT

Melanin is a pigment that contributes to the skin color. Hyper pigmentation where melanin is in excess quantity can cause significant esthetic problems. Facial aesthetics is affected by smile line. Gingiva is an integral component of facial esthetics. Various treatment modalities have been employed to correct hyperpigmentation of gingiva. In the present case, hyperpigmentation was graded, scalpel technique was used for depigmentation and followed upto three months. Significant improvement in aesthetics was achieved.

Key Words- Depigmentation, Gingiva, Scalpel surgery, Melanin.

Received: 24 February 2018

Revised: 1 March 2018

Accepted: 04 March 2018

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This article may be cited as: Thakur K, Sharma S, Basith A, Biir MSM. Gingival Depigmentation - A Case Report. J Adv Med Dent Scie Res 2018;6(4):33-35.

INTRODUCTION-

Melanin Hyper pigmentation of gingiva usually does not present as a medical problem, but many patients may consider their dark gums to be unaesthetic. The problem is aggravated in patients with a gummy smile or gingival display while smiling. The foremost indication for depigmentation therapy is the request by a person for improved esthetics. Demand for cosmetic therapy for gingival hyperpigmentation is common. Various methods as gingivectomy¹, gingivectomy with free gingival auto grafting², acellular dermal matrix allografts³, electro surgery⁴, cryosurgery⁵, abrasion with diamond bur⁶ and various types of lasers⁷ have been used for cosmetic therapy of gingival melanin depigmentation.

The present case report, describes a simple and effective surgical depigmentation technique that does not require sophisticated instruments or apparatus, yet yields esthetically acceptable results along with patient's satisfaction.

CASE REPORT

A 26 -Year old male patient visited the department of periodontics in Maharaja Ganga Singh Dental College and research centre Sri ganganagar, with the chief complaint of black coloured gums (fig 1). His oral examination revealed that he had deeply pigmented gingiva from right first premolar to left first premolar.

The patient requested for esthetic treatment which could make his "Black coloured gums look better."



Figure 1: Pre-operative picture of 26 year old male complaining of black colored gums

A Scalpel surgery was planned to perform the depigmentation. The entire procedure was explained to the patient and written consent was obtained. A Complete medical, family history and blood investigations were carried out to rule out any contraindication for surgery. Local anesthesia was infiltrated in the maxillary anterior region from right first premolar to left first premolar (Lignocaine with adrenaline in the ratio 1:100000 by weight) A Bard parker handle with a No 15 blade was used to remove the

pigmented layer. Pressure was applied with sterile gauze to control haemorrhage during the procedure. After removing the entire pigmented epithelium along with a thin layer of connective tissue with scalpel, care was taken to see that all remnants of the pigmented layer was removed. (Fig 2 &3) The surgical area was covered with periodontal dressing. (fig4). Post surgical antibiotics (Amoxicillin 500 mg twice daily for five day) and Analgesics (Ibuprofen with paracetamol, twice daily for three days) were prescribed. The patient was advised to use chlorhexidine mouth wash 12 hourly for one week.



Figure 2: Peeling of Epithelium With Scalpel



Figure 3: Layer of Epithelium



Figure 4: Peri-pack Placed



Figure 5: After 1 day



Figure 6: After 3 Months

The patient was reviewed after one day, and one week. Patient did not report any discomfort. (Fig 5) The patient was asked to continue chlorhexidine mouth wash for another week. At the end of 1 month re-epithelization was complete and healing was found to be satisfactory. Patient had no complaint of post-operative pain and sensitivity. However, a few localized areas of repigmentation were seen. At the end of 3 months, the gingiva appeared healthy and no further repigmentation was seen. (fig6)

DISCUSSION

Oral pigmentation occur in all races of man. There are no significant differences in oral pigmentation between males and females. The intensity and distribution of pigmentation of the oral mucosa is variable, not only between races but also between different individuals of the same race and within different areas of the same mouth. Melanin pigmentation is frequently caused by melanin deposition by active melanocytes located mainly in the basal layer of the oral epithelium. Pigmentations can be removed for esthetic reasons. Different treatment modalities have been used for this aim³. The selection of a technique for depigmentation of the gingiva should be based on clinical experience, patient's affordability and individual preferences.

Cryosurgery is followed by considerable swelling and it is also accompanied by increased soft tissue destruction. Depth control is difficult, and optimal

duration of freezing is not known, but prolonged freezing increases tissue destruction.⁸ Depigmentation with lasers achieves good results, but they require sophisticated equipment, occupies large space and is expensive. A free gingival graft can also be used to eliminate the pigmented areas. Electrosurgery requires more expertise than scalpel surgery. Prolonged or repeated application of current to tissues induce heat accumulation and undesired tissue destruction. Contact with periosteum or alveolar bone and vital teeth should be avoided.⁹

Scalpel surgical technique is highly recommended in consideration of the equipment constraints that may not be frequently available in clinics.⁸ It is known that the healing period of scalpel is faster than other techniques. However, scalpel surgery may cause unpleasant bleeding during and after the operation and it is necessary to cover the exposed lamina propria with periodontal dressing for 7 to 10 days⁸

In the present case, a few localized areas of repigmentation were seen at the end of 1 month. At the end of 3 months, no further repigmentation was seen. The case is being followed up to estimate further extent and rate of repigmentation.

CONCLUSION-

Scalpel surgical technique yielded esthetically acceptable results with minimal discomfort to the patient. Unpleasant bleeding during depigmentation surgery was controlled with pressure packs. Healing was uneventful. There were only a few sites with repigmentation at the end of three months. The depigmentation procedure thus was successful and the patient was comfortable with the esthetics achieved.

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Source of support: Nil **Conflict of interest:** None declared

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