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Surgical Gingival Depigmentation - A Case Report

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ABSTRACT

Smile is a kind of facial expression which shows happiness.Smile is determined not only by shape of the teeth but its position of the gingival tissues.Periodontist play a major role in creating a healthy smile in the patients. Gingival Pigmentation results from melanin granules, which is produced by melanoblasts.The Degree of pigmentation is produced by melanoblastic activity.Oral Pigmentation is the discolouration of the gingiva or oral mucosa associated with several exogenous and endogenous factors. The present case report discuss about depigmentation of gingiva by Scraping technique by scalpel method which is simple effective and produces good results along with patient satisfaction.

Key words: Gingiva, Melanin Pigmentation, Depigmentation, Scalpal Technique.

INTRODUCTION

Changes in the color of the gingiva are most important clinical sign of gingival disease. The normal color of gingival is “coral pink” and is produced by the tissue vascularity and modifiedby the overlying epithelial layers. Melanin Pigmentation of the gingiva can be seen in all races of human kind.[1]Gingival Pigmentation results from melanin granules which are produced by melanoblasts. Melanin, a brown pigment is most common natural pigment contributed to endogenous pigment of the gingiva[1,2].

Melanocytes are specialized pigmented cells situated in the basal layer of the oral epithelium an epidermis[4]. They synthesize melanin in a organelles called premelanosomes or melanosomes. They contain tyrosinase, which hydroxylatestyrosine todihydroxyphenylalanine (dopa), which in turn is progressively converted to melanin. Melanin granules arephagocytosed and contained within other cells of the epithelium and connective tissue, called melanophagesor melanophores.

Melanin granules are seen in high amount in asian – African population.[5] In dark skinned or black individuals, a increased melanin production has long been known to be the result of genetically determined hyperactivity of melanocytes[3]. Brown or dark pigmentation and discoloration of gingival tissues can be caused by variety of local and systemic factors. Systemic conditions such as Systemic conditions such as endocrine disturbances,Albright syndrome, malignant melanoma, anti – malarial therapy, trauma, hemochromatosis chronic pulmonary disease , Peutz-jeghers syndrome will produce and uneasiness particularly if pigmentation is visible during speech and smile.

Gingival depigmentation is a periodontal plastic surgical procedure where by gingival hyperpigmentation is removed or reduced by various techniques. There are various techniques available for gingival depigmentation. The criteria for selection of the technique are based on the patient's comfort and patient's preference. This case report describes simple effective technique using scalpel for depigmentation of gingival.

Casereport

A 22 yrs old patient (Fig. 1) came to the Department of Periodontics presenting a chief compliant of "black"coloured gums. The history reveals the black colored gums was present since birth .No significant medical history was given by the patient and there were no contraindications for No significant medical history was given by the patient and there were no contraindications for surgery. Complete investigation was taken including family history, blood examination, was done to the patient. With the patient concern the surgical depigmentation was planned. The written consent was obtained from the patient.

This procedure was done under Local anesthesia. The Local anesthesia was infiltrated in the Maxillary anterior teeth region from Canine to Canine (Fig. 3)(lignocaine with adrenalin in ratio 1:1,00,000 by weight). Using Bard Parker handle with a No 15 blade was used to remove the Pigmented layer. Complete care was taken to remove all the melaninpigments(Fig. 4). Pressure was applied to control bleeding using sterile gauze mositioned in saline during the procedure .The Coe Pak was placed over the wound area(Fig. 5) and oral hygiene instruction was given to the patients. The medications was given to the patients (amoxicillin 500 mg, thrice daily for 5 days, ibuprofen with paracetamol three times daily for 3 days).The patient was given Chlorhexidine mouth wash for 1 week

RESULTS

Results after a week was reviewed (Fig. 7). No Post Operative Pain and hemorrhage occurred. At the end of one month (Fig. 8) re-epithelialization was complete and healing found to be satisfactory. At the end of six months gingival appears to be healthy and no further re pigmentation was seen.

Fig. 1: Pre-operative Photographs

Fig. 2: Intra-operative Photographs

Fig. 3: After scalpel procedure done

Fig. 4:Pigmented epithelial layer

Fig. 5: Periodontal pack

Fig. 6 : Post operative photographs

Fig. 8:After six months

Fig. 7: After a week

Fig. 9:After six months

DISCUSSION

Clinical and experimental reports describe the different depigmentation methods it is known that healing period for scalpel wounds are faster than other technique; Electro surgery requires more expertise than scalpel surgery. Prolong application or repeated applicationof current to the tissues. There are various techniques currently practiced are chemical cauterization

CONCLUSION

Post operativepain ,hemorrhage, pain infection and scarring was not observed. This procedure is accepted by patients and results were good enough accepted by the patients. Repigmentation did not occur. Thus scalpel depigmentation appears to be easy technique-friendly to the patients giving good results and and patient satisfaction.

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