

# Gingival depigmentation – a report of four cases treated with two different treatment modalities



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## **Abstract**

**Background:** Normal colour of the gingiva is determined by the amount of melanin, carotene and haemoglobin within the gingival tissue, these being the most common natural pigments contributing to the normal colour of the gums. Although physiologic and ethnic melanin pigmentation is not a medical problem, complaints about "black gums" are common. The conventional surgical treatment modality is traumatic treatment causing sufficient post-operative pain and discomfort with high possibilities of early relapse or recurrence of gingival melanin pigmentation. Recently, laser ablation has been recognized as a most effective, pleasant and reliable technique. Therefore, the aim of this report was to show a comparison between both treatment modalities from the following points of view: Firstly, performance and effectiveness at the time of the procedure; secondly, patients' complaints during the post-operative healing phase; and lastly, the clinical outcome after complete healing of the surgical sites.

**Treatment:** The current study presents four cases of gingival hyper pigmentation that were treated according to severity and distribution of the pigmentation and the patients' demands. Two cases were treated by laser using the Erbium:YAG laser (Distance – 7-9 mm (non contact, defocused mode plus water cooling – energy 300 mJ and a frequency of 10-15 Hz), whereas the other two cases were treated by conventional surgical ablation using blade no 15. The patients were scheduled for three postoperative follow-up visits, at one week, 2 weeks and 8 weeks.

**Results:** The result showed that laser therapy is a soft and less traumatic procedure for ablation of pigmented gingiva. The procedure was performed with minimum local anaesthetic and a bloodless field and with higher patient satisfaction and relief. Furthermore, patients treated by laser showed less post-operative discomfort and faster healing than those treated by surgical method. However, both procedures showed similar clinical outcome after complete healing of the wound. Further post-operative follow-up time is required to determine the incidence of recurrent of gingival pigmentation after both surgical and laser depigmentation.

**Conclusion:** Stamp technique is an easy method of restoration of surface morphology of the tooth without any occlusal disharmony or time consumption implications.