بسم الله الرحمن الرحيم

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تم رفع هذه الرسالة بواسطة / حسام الدين محمد مغربي

بقسم التوثيق الإلكتروني بمركز الشبكات وتكنولوجيا المعلومات دون أدنى مسئولية عن محتوى هذه الرسالة.

ملاحظات:
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Wound healing evaluation after gingival depigmentation using ceramic soft tissue trimming bur versus diode laser

(Randomized Clinical trial)

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Dedication

This work is dedicated to

My dear parents

That light that lead my way

My beloved wife and sisters

For their encouragement and support

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LIST OF ABBREVIATIONS

DOPA.....Dehydroxyphenylalanine

AIDS.....Acquired Immunodeficiency Syndrome

HIV .....Human Immunodeficiency Virus

B.P blade ..... Bard Parker blade

kHz.....Kilohertz

°c.....Celsius degree

°F .....Fahrenheit degree

LASER.....Light Amplification by the Stimulated Emission of Radiation

Nd- YAG.....Neodymium Yttrium Aluminum Garnet

Er:-YAG .....Erbium Yttrium Aluminum Garnet

CO2.....Carbon dioxide

LLLT .....Low-Level LASER Therapy

LANAP.....Laser-Assisted New Attachment Procedure

nm.....Nano Meter

J/cm2.....Joules per Square Centimeter

HeNe LASER.....Helium-Neon LASER

PAD .....Photoactivated Dye

MRSA .....Methicillin-resistant Staphylococcus aureus

PDT……..Photodynamic Therapy

Introduction

Introduction

Nowadays modern society is significantly interested in dental esthetics. A beautiful smile needs good dental profile as long as an appealing gingival display. Gingival role in esthetics depend on its health and appearance. The color of the gingiva depend on many factors like the underlying size and number of vasculature, thickness of the epithelium, the amount of pigments and keratinization degree within the gingival epithelium.(Raghavendra et al., 2016)

Usually healthy gums have a "coral pink" color. Any other color as red and blue signify inflammation (gingivitis) or pathology. Color variation is possible and can be due to a lot of factors including: thickness and degree of keratinization of the epithelium, blood flow to the gums, natural pigmentation, disease and medications. So, uniformity of color is more important than the color itself. Deposits of excess melanin cause dark spots or patches on the gums. Gingival depigmentation procedure is used as part of cosmetic dentistry for removing these pigmentation.(Soroye and Ayanbadejo, 2016)

Dark skinned individuals suffer from increased melanin production in the skin and oral mucosa and that is due to their hyperactive melanocytes.

Introduction

Earlier studies showed no difference in the distribution density of melanocytes between light-skinned and dark skinned individuals.(Carranza et al., 2018)

Depigmentation of the gingiva is performed by various techniques like scalpel, bur, laser, and chemicals whereby the hyperpigmentation is removed or reduced. The aim of this procedure is to remove epithelium of the gingiva with a layer of the underlying connective tissue and let the denuded connective tissue heal by secondary intention.(Raghavendra et al., 2016)

Different techniques are available for depigmentation of the gingiva including: Scalpel technique, Cryosurgery, Abrasives, Electro surgery, Lasers: diode laser, neodymium-doped yttrium aluminum garnet (Nd: YAG) laser, erbium yttrium aluminum garnet (Er: YAG) laser, CO_2 laser and Chemical methods including acoustic agents not used nowadays.(El Shenawy et al., 2015)

Gingival depigmentation by removing the epithelial layer of the gingiva can involve surgical, or laser ablation techniques. (Lin et al, 2014)

Introduction

A dental laser targeting and ablation of the melanocytes result in reducing melanin production in the gingival tissue. After laser depigmentation procedure, gingival healing is by secondary intention. The resulting gingival color is lighter and more uniform. A study found that diode laser was effective and there were no signs of re-pigmentation after a 6 month follow up period.(Murthy et al., 2012)

The ceramic soft tissue trimmer bur is a rotary instrument that can be thought of as a rotating scalpel for soft tissue so it can be used as an alternative to using scalpel. Using the tissue trimmer provides minimum bleeding. The bio – compatible hard oxide points are made to cut tissue without burning. A study comparing it with other techniques of depigmentation concluded that, both cases showed almost complete depigmentation and similar aesthetic results. The use of soft tissue trimmer is easy, inexpensive as compared to diode LASER.(Negi et al., 2019)

Review of literature