

Dedication

*All praise to Allah, today I fold the day's tiredness and the errand summing up
between the cover of this humble work*

To

*The spring that never stops giving...my mother whom he strives to bless
comfort and welfare and never stint what he owns to push us in the success
way to my father, and my his bent .*

To

My teachers, friends, and dearest people in my life

I dedicate this work.

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Abstract

Lasers have been long introduced in dentistry. Today lasers are been used for Endodontic, Periodontal, Oral Surgery as well as restorative procedures. Here, the effect of different wavelengths on teeth bleaching and in pulp temperature was investigated.

Teeth were exposure to diode lasers with 532 nm, 820 nm, 915 nm and continue Nd: YAG 1064nm laser in different exposure times specifically (30, 40, 50, and 60) second, the degree of staining after bleaching was evaluated, and the effects of laser bleaching in pulp temperature with and without gel during exposure to laser beam was determined.

The results led to the conclusion that the temperature rises with increasing wavelength, power, and exposure time, whereas using gel shows lower rise in temperature.

Finally, this study stated some recommendations, one of the most important recommendations don't use high power in the bleaching process because the tooth will damage.

مستخلص

دخلت الليزررات منذ فترة طويلة في طب الأسنان. ويستخدم الليزر اليوم لعلاج اللثة ,في حشو الأسنان, وجراحة الفم فضلا عن الإجراءات الترميمية. في هذا البحث، تمت دراسة تأثير أطوال موجية مختلفة على تبييض الأسنان، وتم تحديد تأثيرها على درجة حرارة اللب باستخدام هلام التبييض وبدونه أثناء التعرض لشعاع الليزر.

تم تشيع الأسنان بليزررات أشباه موصلات ذات أطوال موجية 532 نانومتر، 820 نانومتر، 915 نانومتر وليزر النيودنيوم ياغ المستمر 1064 نانومتر لفترات زمنية مختلفة، على وجه التحديد (30 و 40 و 50 و 60) ثانية، تم تقييم درجة التصبغ بعد التبييض، وتم تحديد تأثير التبييض بالليزر في درجة حرارة اللب مع وبدون هلام أثناء التعرض لشعاع الليزر.

أدت النتائج إلى استنتاج أن درجة حرارة لب الأسنان ترتفع مع زيادة الطول الموجي والقدرة و زمن التعرض، في حين ان استخدام هلام التبييض يقلل من ارتفاع درجة حرارته.

وأخيراً تناولت هذه الدراسة بعض التوصيات، أهمها تجنب استخدام ليزرات ذات قدرات عالية في تبييض الأسنان لأنها تؤدي إلى تلف الأسنان.

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