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شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم





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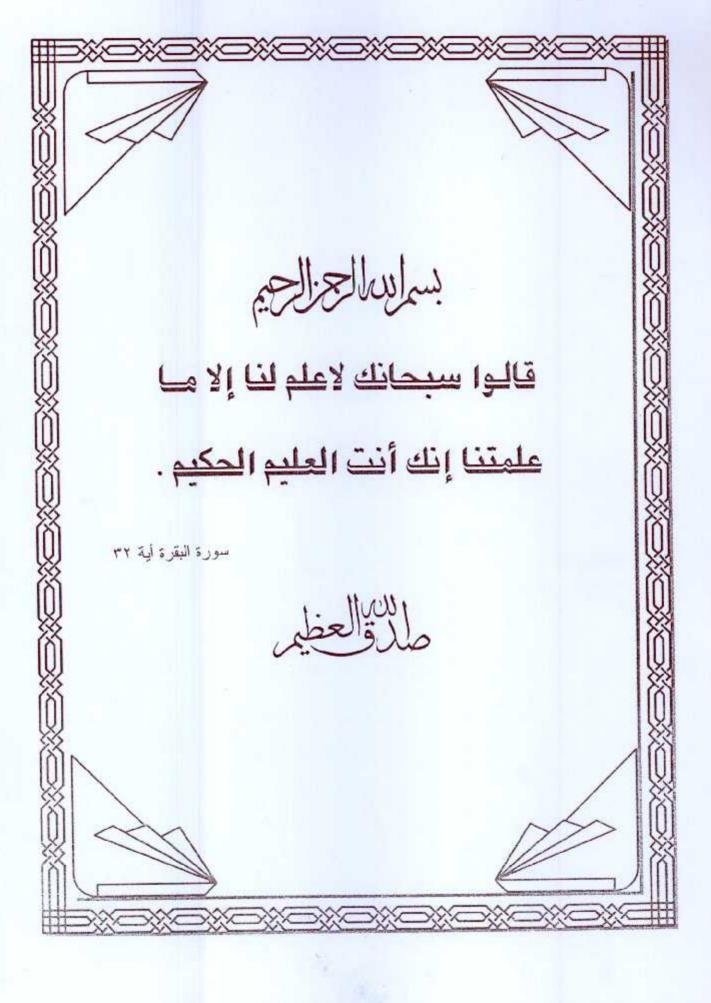


Helium Neon Versus Gallium Aluminum Arsenide Laser Irradiation on Burn Wound Healing in Rats

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The aim of this work were to explore the role of laser therapy application in burn wound healing acceleration and to detect the amount and frequency of laser therapy to decrease burn wound area. In this study 90 female albino rats, their mean age and weight were 6.49±0.52 months and 179.96±9.34 gram respectively. They were divided randomly into 3 equal groups: Group (1)(He-Ne group) 30 female albino rats which are further subdivided according to energy density into 3 equal group: group (I-A) which receive He-Ne laser at 1 J/cm², group (I-B) which receive He-Ne laser at 2 J/cm², and group (I-C) which receive He-Ne laser at 4 J/cm², Group (2)(Ga-Al-As group) 30 female albino rats which are further subdivided according to energy density into 3 equal group: group (II-A) which receive Ga-Al-As laser at 1 J/cm², group (II-B) which receive Ga-Al-As laser at 2 J/cm², and group (II-C) which receive Ga-Al-As laser at 4 J/cm², Group(3) (Control group) which doesn't receive any treatment. The result showed a significant difference between both groups and the control group regarding both WSA and colony count, also the best result obtained by He-Ne at intensity of 2 J/cm².

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Dedication

This work is dedicated to My parents and My fiancé

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LIST OF ABBERVIATIONS

He-Ne Helium Neon

Ga-As Gallium Arsenide

Ga-Al-As Gallium Aluminum Arsenide

IR Infra Red

mw milli-watt

nm nano-meter

Ant. Anterior

Post. Posterior

R. Right

L. Left

R.U.arm Right Upper arm

L.U.arm Left Upper arm

HO Heterotopic ossification

NSAIDs Non Steroidal Anti-Inflammatory drugs

LILT Low Intensity Laser Therapy

ATP Adenosine triphosphate

J/cm² Joule centimeter square

WSA Wound Surface area

FDA Food and Drug Association

IDE Investigational Device Exemption

IRB Institution Review Board

DNA Deoxy ribonucleic acid

PG Prosta-glandin

min Minute

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