



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

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قسم

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MONA MAGHRABY

“Diode Laser Application versus Ibuprofen in Treatment of Ligature-Induced Periodontitis in Albino Rats.

Histological and Immunohistochemical study”

Thesis submitted to the Faculty of Dentistry Ain Shams University, for partial fulfillment of the requirements of Master Degree in Oral Biology

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Dedication

This work is dedicated to my beloved parents and my dear brother, for always standing by my side, pushing me to do my best and accomplish my dreams. If it weren't for my parents, I wouldn't be able to be the person I am.

To my dear husband for his love, support and encouragement. He is the perfect partner who was with me through all hard times.

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Declaration

I declare that this thesis and the work presented are my own and that I have consulted all the references cited. This work has been carried out under the guidance of **Prof. Dr. Ahmed Mahmoud Halawa, Prof. Dr. Nehad Samir Taha, and Ass. Prof.Dina Mohamed Abdel Khalik.**

List of abbreviations

Abbreviation	Full name
%	Percent sign
Al	Aluminium
Ar	Arsenide
°C	Celsius degree
cm	Centimetre
CO ₂	Carbon dioxide
COX	Cyclo-oxygenase
CSE	Cervico-facial subcutaneous and mediastinal emphysema
3D	Three dimensional
DAB	Diaminobenzidine
DL	Diode Laser
DNA	Deoxyribonucleic acid
EDTA	Ethylene diamine tetra acetic acid
Er,Cr:YSGG	Erbium, Chromium-doped yttrium, scandium, gallium and garnet
Er:YAG	Erbium-doped yttrium aluminium garnet
g	Gram
Ga	Gallium
GCF	Gingival crevicular fluid
H&E	Hematoxylin and Eosin
Ig	Immuno globulin
IL	Interleukin
IL-1 α	Interleukin 1 alfa
IL-1B	Interleukin 1 beta
In	Indium
j	Joule
kg	Kilogram
LASER	Light Amplification by the Stimulated Emission of Radiation

mg	Milligram
ml	Millilitre
μm	Micrometer
MMPs	Matrix Metalloproteinases
ms	Millisecond
NaOH	Sodium Hydroxide
Nd:YAG	Neodymium-doped yttrium aluminium garnet
nm	Nano meter
NSAIDs	Non-steroidal anti-inflammatory drugs
PBS	Phosphate buffered saline
PDT	Photodynamic therapy
PGE2	Prostaglandin E2
pH	Power of hydrogen
RANKL	Receptor activator for nuclear factor kB ligand
RBCs	Red blood cells
s	Second
SRP	Scaling and root planning
TIMP	Tissue inhibitor matrix metalloproteinase
W	Watt

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