



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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MONA MAGHRABY



Evaluation of the Efficacy and Safety of Different Dilutions of Mesobotox in Mid and/ or Lower Face Rejuvenation: Interventional Study

Thesis

**For Partial Fulfillment of Master Degree
in Dermatology, Venereology and Andrology**

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2021

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سببنا انك لا تعلم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدق الله العظيم

سورة البقرة الآية: ٣٢

Acknowledgment

*First and foremost, I feel always indebted to **ALLAH**, the Most Kind and Most Merciful.*

*I'd like to express my respectful thanks and profound gratitude to **Prof. Dr. Samar Abdallah Salem**, Professor of Dermatology, Venereology and Andrology - Faculty of Medicine- Ain Shams University for her keen guidance, kind supervision, valuable advice and continuous encouragement, which made possible the completion of this work.*

*I am also delighted to express my deepest gratitude and thanks to **Dr. Ahmed Abdelfattah Afify**, Lecturer of Dermatology, Venereology and Andrology, Faculty of Medicine, Ain Shams University, for his kind care, continuous supervision, valuable instructions, constant help and great assistance throughout this work.*

*I am deeply thankful to **Prof. Dr. Wael Mohamed Seoudy**, Professor of Dermatology, Venereology and Andrology, Faculty of Medicine, Misr University for Science and Technology for Science and Technology, for his great help, active participation and guidance.*

I would like to express my hearty thanks to all my family for their support till this work was completed.

Last but not least my sincere thanks and appreciation to all patients participated in this study.

Nesma Saber Abd El Rahman

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List of Abbreviations

Abb.	Full term
<i>AHAs</i>	<i>Alpha-hydroxyl acids</i>
<i>BTX</i>	<i>Botulinum toxin</i>
<i>C.Bot</i>	<i>Clostridium botulinum</i>
<i>CGRP</i>	<i>Calcitonin gene-related peptide</i>
<i>CNS</i>	<i>Central nervous system</i>
<i>CO₂</i>	<i>Carbon dioxide</i>
<i>CoQ10</i>	<i>Coenzyme Q10</i>
<i>Cu</i>	<i>Copper</i>
<i>DNA</i>	<i>Deoxyribonucleic acid</i>
<i>FDA</i>	<i>Food and Drug Administration</i>
<i>GAIS</i>	<i>Global aesthetic improvement scale</i>
<i>GHK-Cu</i>	<i>Glycyl L histidyl-L lysine Cu</i>
<i>HA</i>	<i>Hyaluronic acid</i>
<i>HIFU</i>	<i>High-intensity focused ultrasound</i>
<i>HS</i>	<i>Hidradenitis suppurativa</i>
<i>IPL</i>	<i>Intense pulsed light</i>
<i>MicroBoNT-A</i>	<i>Microbotulinum Toxin A</i>
<i>MRI</i>	<i>Magnetic resonance imaging</i>
<i>MSCs</i>	<i>Mesenchymal stem cells</i>
<i>N</i>	<i>Number</i>
<i>ORL</i>	<i>Orbicular retaining ligament</i>
<i>PHN</i>	<i>Postherpetic neuralgia</i>
<i>PLA</i>	<i>Poly-L-lactic acid</i>
<i>PMMA</i>	<i>Polymethylmethacrylate</i>
<i>PRP</i>	<i>Platelet-rich plasma</i>
<i>SD</i>	<i>Standard Deviation</i>
<i>SMAS</i>	<i>Superficial musculoaponeurotic system</i>
<i>SPSS</i>	<i>Statistical package for social science</i>
<i>TCA</i>	<i>Trichloroacetic acid</i>

List of Abbreviations Cont...

Abb.	Full term
<i>TEWL</i>	<i>Transepidermal water loss</i>
<i>U</i>	<i>Unit</i>
<i>UVA</i>	<i>Ultraviolet A</i>
<i>UVB</i>	<i>Ultraviolet B</i>
<i>UVC</i>	<i>Ultraviolet C</i>
<i>VEGF</i>	<i>Vascular endothelial growth factor</i>
<i>Y</i>	<i>Years</i>

INTRODUCTION

Facial ageing is a gradual process which could be due to intrinsic and extrinsic causes. It ultimately results in the appearance of gravity-induced tissue ptosis, wrinkles, epidermal and dermal atrophy, dryness, senile lentigo, flushing, telangiectasia, and enlarged pores (*Vashi et al., 2016*).

The first signs of the aging face are visible in the third decade, when eye-brows start to descend as a result of increased skin laxity, gravitational force, and repeated contractions of the muscles in periorbital region (*Krutmann et al., 2017*).

Progression of the ageing process in the following decades produces additional changes in facial soft tissues and bony landmarks, leading to alterations in facial proportions (*Ramos-e- Silva et al., 2013*).

The upper third of the face of the mature person reveals the enlargement of the frontal bone, increased protrusion of the glabella, resorption of superomedial and inferolateral orbital rims and lateral translation of the orbits. Repeated contractions of the frontal muscles contribute to the development of dynamic and static rhytides on the forehead and glabella (*Gerth, 2015*).