Role of dexamethasone iontophoresis in treatment of epicondylitis evaluated by quantitative high resolution ultrasonography

Thesis

submitted for partial fulfillment of the master degree in Physical Medicine, Rheumatology and Rehabilitation

By

Ahmed Ibrahim KamalEddin Afify Hammad

M.B., B.Ch

Faculty of medicine- Ain Shams University

Under supervision of

Prof.Dr / Fatma Kamel Mohammed Abdelmotaal

Professor and the Head of Physical Medicine, Rheumatology and Rehabilitation Department Faculty of medicine- Ain Shams University

Dr /Nevine Ahmed Hamed Shaker

Assistant Professor of Physical Medicine, Rheumatology and Rehabilitation Faculty of medicine- Ain Shams University

Dr / Eman Abdelhamid Kaddah

Lecturer of Physical Medicine, Rheumatology and Rehabilitation Faculty of medicine- Ain Shams University

> Faculty of medicine Ain Shams University 2009

تقييم دور أيونوفورية الديكساميثازون في علاج التهاب النتوء فوق اللقمي العضدى باستخدام الموجات فوق الصوتية عالية التردد

رسالة توطئة للحصول على درجة الماجستير في الطب الطبيعي والروماتيزم والتأهيل

مقدمة من طبيب/ أحمد إبراهيم كمال الدين عقيقي حماد بكالوريوس الطب والجراحة كلية الطب – جامعة عين شمس

تحت إشراف
الأستاذ الدكتور / فاطمة كامل محمد عبدالمتعال
استاذ و رئيس قسم الطب الطبيعي والروماتيزم والتأهيل
كلية الطب – جامعة عين شمس
الدكتور / نيفين أحمد حامد شاكر
استاذ مساعد الطب الطبيعي والروماتيزم والتأهيل
كلية الطب - جامعة عين شمس
الدكتور / إيمان عبد الحميد قداح
مدرس الطب الطبيعي والروماتيزم والتأهيل
مدرس الطب الطبيعي والروماتيزم والتأهيل

كلية الطب جامعة عين شمس ٢٠٠٩

Acknowledgments

First of all, many thanks will never be enough to express my endless gratitude to **ALLAH** for giving me the strength and support to carry out this work.

I would like to express my deep appreciation wrapped with great respect to *Prof. Dr. Fatma Kamel Mohammed Abdelmotaal* Professor and the Head of Physical Medicine Rheumatology and Rehabilitation Department, Faculty of Medicine, Ain Shams University, for her encouragement & expert supervision.

I am greatly honored to express my gratitude to *Dr. Nevine Ahmed Hamed Shaker*, Assistant Professor of Physical Medicine Rheumatology and Rehabilitation Department, Faculty of Medicine, Ain Shams University, for her precious advices and valuable observations.

Special thanks go to *Dr. Eman Abdelhamid Kaddah*, Lecturer in Physical Medicine, Rheumatology and Rehabilitation Department Faculty of Medicine Ain Shams University, who not only encouraged me but also provided tireless help and continuous guidance throughout this work.

I am deeply grateful to *Dr. Hossam Mousa Sakr*, lecturer of Radio diagnosis Department, Faculty of Medicine, Ain Shams University, for his exceptional help and valuable cooperation to accomplish this work.

Many thanks to all professors, staff and colleagues in our department, for offering help whenever I needed during this research.

I wish to acknowledge the study done by my colleague Yasser Saleh Galal Assistant Lecturer, under the supervision of Prof. Dr. Mohamoud Eltayyeb Naser Professor of Physical Medicine Rheumatology and Rehabilitation Department, Prof. Dr. Mona Lotfy Zamzam Professor of Physical Medicine Rheumatology and Rehabilitation Department and Dr. Nevine Ahmed Hamed Shaker Assistant Professor of Physical Medicine Rheumatology and Rehabilitation Department, Ain Shams University for providing insight to us about the role of other modalities in management of epicondylitis which was a guide for me in this work.

I would like to express my great honor and thanks to *Prof. Dr. Atef Ibrahim El-Ghaweet* Professor of Rheumatology and Rehabilitation Department, Faculty of Medicine, Mansoura University, and to *Dr. Eman Mahmoud Ghaniema* Assistant Professor of Physical Medicine Rheumatology and Rehabilitation Department, Ain Shams University for honoring me in discussing this work.

Finally, I must thank my family for their encouragement and support not only during the period of this research but also during my whole life.

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List of Abbreviations

CEOCommon extensor origin
CFO Common flexor origin
cm centimeter
DCDirect Current
DXM Dexamethasone
DXM-P Dexamethasone Sodium Phosphate
ECRBExtensor carpi radialis brevis
ESR Erythrocyte Sedimentation Rate
ESWT Extracorporeal shock wave therapy
Grip SMaximum grip strength of the sound site
LLLTLower level laser therapy
mA milli Ampere
MCTMedial conjoint tendon
MGFMaximum grip force of the affected site
MHzMega Hertz
ml milli litre
mm millimeter
MRI Magnetic Resonance Imaging
MWMMobilization with movement
NSAIDs Nonsteroidal Anti-inflammatory drugs
PGAPatient global assessment
PFGF Pain-free grip force of the affected site
PSI Pound per square feet
STIR short tau inversion recovery sequence
UCLUlnar collateral ligament
USUltrasonography
VASVisual Analogue Scale

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Introduction

Medial or lateral epicondylitis is the most common disorder of the elbow in adults, with an incidence of 4 to 7 per 1000 per year seen in general practice with an average episode estimated between six months to two years. It occurs in men more than women and tends to involve the dominant hand of the subject (*Nirschel et al.*, 2003 and McRae, 2004).

Epicondylitis is believed to occur due to strain on the tendons of the forearm muscles at the points of their attachment to the elbow, either on the common extensor origin in lateral epicondylitis, or the common flexor origin in medial epicondylitis; leading to inflammation and ultimately to degenerative changes such as tendinosis, micro tears, and fibrous tissue healing at these points (*Nirschel et al.*, 2003 and *McRae* 2004).

Lateral epicondylitis is diagnosed clinically by its characteristic presentation: which is pain on the lateral aspect of the elbow that increases by strenuous use of the hand and forearm. On examination it reveals lateral epicondylar tenderness with pain on resisted extension of the wrist (*Harrington et al, 1998*).