

**Diagnostic and Prognostic Value of Temporal
recording of facial nerve stimulation and
Ultrasonography in unilateral facial palsy**

Thesis

*Submitted for partial fulfillment of M.D. Degree in Physical
Medicine, Rheumatology and Rehabilitation*

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Cairo

2017

**الصدغي للعصب القيمة التشخيصية و التنبؤية لكل من التسجيل
□ الوجهي و الموجات فوق الصوتية في مرض شلل العصب الوجهي**

رسالة

الطب الطبيعي و الروماتيزم و في توطئة للحصول علي درجة الدكتوراه

التأهيل

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القاهره

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

لَسْبَدَانِكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

سورة البقرة الآية: ٣٢



Acknowledgement

*I always feel the gratitude to my advisor, **professor Nagwa M. M. Nassar** for her generous support and patience, not only during this research work, but essentially during my entire career. Her care was really beyond imagination. I have to express appreciation for sharing her pearls of wisdom with me during the course of this research. This study was impossible to see light without her continuous guidance. I am so grateful to her for holding me to a high research standard and enforcing strict validations for each research result, and thus teaching me how to do research.*

*Special thanks to **Professor Iman Mahmoud Ghanima**. Her extensive experience in the field of electrodiagnosis was pivotal in this work. She enriched our study with invaluable ideas, insightful comments and constructive criticisms at different stages of my research which were thought provoking and helped me focusing my ideas.*

*I would like to extend my sincere gratitude to **Assistant Professor Eman Ahmed Tawfik** for her meticulous and countless revisions, detailed instructions, keen advice, careful reading, flawless grammatical editing of my thesis and the generous sharing of her experience in the field of the neuromuscular ultrasound.*

I can't but express my deepest thanks to all my professors and colleges who provided support that greatly assisted this research. And Finally, I take this opportunity to express the profound gratitude from my deep heart to my beloved family for their love and continuous care.

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List of Abbreviations

AAN	: American academy of neurology.
AFNR	: Antidromic facial nerve response.
AIDS	: <i>Acquired immune deficiency syndrome.</i>
ANOVA	: Analysis of variance.
AUC	: Area under the curve.
BAER	: Brain stem auditory evoked response.
CMAP	: Compound muscle action potential.
CNS	: Central nervous system.
CSA	: Cross sectional area.
CT	: Computed tomography.
D/N ratio	: Diseased/Normal ratio.
DNA	: Deoxyribonucleic acid.
EAC	: External auditory canal.
EDX	: Electrodiagnosis.
ELISA	: Enzyme-linked immunosorbent assay.
EMG	: Electromyography.
EMG bio	: Electromyography biofeedback.
ENoG	: Electroneuronography.
ES	: Electric stimulation.
FNAEP	: Facial nerve antidromic evoked potentials.
FTA-ABS	: Fluorescent treponemal antibody absorption
HB	: House Brackmann.
HIV	: Human immunodeficiency virus.
HSV	: Herpes simplex virus.
IAC	: Internal acoustic canal.
IM	: Intra muscular.
LMNL	: Lower motor neuron lesion.
mA	: Milli ampere.
MEVs	: Minimal excitability values.
MHz	: Megahertz.
MNC	: Motor nerve conduction.
MRI	: Magnetic resonance imaging.
mV	: Milli volt.
NCS	: Nerve conduction study.

List of Abbreviations

PCR	: Polymerase chain reaction.
PNF	: Proprioceptive neuromuscular facilitation.
r	: Pearson correlation test.
ROC	: Receiver-operating characteristic.
RPR	: Rapid plasma reagin.
SDC	: Strength duration curve.
SOOF	: Suborbicularis oculi fat.
SPSS	: Statistical package for social sciences.
SWD	: Short wave diathermy.
TDS	: To be taken three times daily.
UMNL	: Upper motor neuron lesion.
US	: Ultrasound.
VDRL	: Venereal disease research laboratory.
VZV	: Varicella zoster virus.
WD	: Wallerian degeneration.

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Abstract

Facial nerve paralysis is the most common cranial neuropathy. Its incidence ranges from 20 to 30 cases per 100.000 people.

Bell's palsy accounts for more than half of all cases of idiopathic facial palsy. The prognosis for Bell's palsy is generally good with 85 to 90% of patients recovering completely within one month. The remaining 15% of the cases progress to complete degeneration and will not usually show signs of recovery for three to six months and may develop complications such as residual paresis, contracture and synkinesis.

Evaluation of the prognosis of Bell's palsy is important for patients counseling and guiding further management. Since 1970's, prognostication has been based mainly on various electrophysiologic tests, such as electromyography (EMG), electroneuronography (ENoG), maximal nerve excitability testing, and facial motor nerve conduction (MNC) testing. Abnormal results of these tests are obtained after the degeneration process extends to the extra-temporal segment of the facial nerve with 1 to 2 week delay.

Abstract

Key word:

Human immunodeficiency virus, Megahertz, Nerve conduction study, Upper motor neuron lesion, Receiver-operating characteristic.