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# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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# **COMBINED LOW INTENSITY LASER AND MAGNETIC THERAPY IN TREATMENT OF FOOT PAIN IN DIABETIC NEUROPATHY**

By

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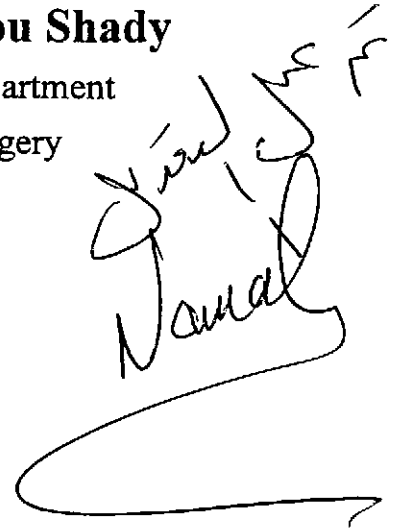
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A handwritten signature in black ink, appearing to read 'Nawal', with a large, sweeping underline that extends to the left.

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## **ABSTRACT**

The objective of this study was to evaluate the effect of combined low intensity laser and magnetic therapy in treatment of Foot pain in diabetic neuropathy patients. Twenty patients of both sexes participated in this study. They randomly divided into two equal groups (study and control groups) (ten patients on each). The program consisted of ; IR laser therapy followed by magnetic therapy, The program was conducted three times/ week for six weeks for both groups.

The patients were assessed for pain intensity, active ROM of ankle dorsiflexion and planterflexion, and Rhomberg sign. These measures were recorded pre treatment, and post treatment at the end of six weeks. The results of this study showed significant decrease in pain intensity, improvement of the body stability and increases ankle dorsiflexion and planterflexion of both feet in both groups but there was very high improvement in the patients of the study group more than the patients in the control group. It can be concluded that this suggested program is effective in decreasing the pain intensity and increasing functional activities in diabetic neuropathic patients with foot pain.

**Key words:** Low intensity laser–Magnetic therapy– Foot pain– Diabetic neuropathy.

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## List of Contents

Subject	Page
Abstract .....	I
Acknowledgement .....	II
Table of Content.....	III
List of Table.....	V
List of Figures.....	VI
List of Abbreviations .....	VIII
Chapter I: Introduction.....	1
Chapter II: Literature Review .....	9
– Anatomy of nerves and nerves cells.....	9
– Pathogenic mechanisms in peripheral nerve disease .....	10
– Pathologic reaction of peripheral nerve .....	12
– Polynuropathy.....	14
– Pain .....	18
– Neurophysiology of pain.....	18
– Diabetic neuropathies .....	23
– Low intensity laser therapy .....	39
– Magnetic radiation.....	49
Chapter III: Subjects, Materials and Methods.....	69
– Subject selection.....	69
– Instrumentation.....	71
– Procedures.....	74
– Statistical analysis .....	78
Chapter IV: Results .....	79
Chapter V: Discussion .....	90

<b>Subject</b>	<b>Page</b>
<b>Chapter VI:</b>	
– Summary and Conclusion.....	98
– Recommendation.....	100
<b>References .....</b>	<b>101</b>
<b>Appendices .....</b>	<b>125</b>
<b>Arabic Summary.....</b>	

**List of Table**

<b>No. of Table</b>	<b>Title</b>	<b>Page</b>
1.	Therapeutic uses of laser therapy.....	44
2.	Demographic Data of patients for both groups.....	80
3.	Comparison between mean values score of pain intensity by (VAS) pre and post treatments in both groups .....	81
4.	Comparison between the mean values degree of right ankle dorsiflexion pre and post treatment in both groups	83
5.	Comparison between the mean values of right ankle planterflexion degree pre and post treatment in both groups .....	84
6.	Comparison between the mean values of left ankle dorsiflexion pre and post treatment in both groups.....	85
7.	Comparison between the mean values degree of Lt ankle planterflexion pre and post treatment in both groups .....	87
8.	Comparison between Rhomberg sign pre and post treatment in both groups.....	89

## List of Figures

No. of Figure	Title	Page
1.	Mechanism of action of laser therapy .....	48
2.	Visual Analog Scale .....	71
3.	Digital Goniometer .....	73
4.	Rhomberg signs test .....	75
5.	Application of Laser Therapy on patient's feet .....	76
6.	Application of Magnetic Therapy on patient's feet .....	76
(7a)	Comparison between mean values of pain intensity by (VAS) pre- and post treatments .....	81
(7b)	Percent of change in pain intensity (VAS) in both groups .....	82
(8a)	Comparison between mean values of Rt ankle dorsiflexion pre- and post treatments in both groups .....	83
(8b)	Percent of change in Rt ankle dorsiflexion in both groups .....	83
(9a)	Comparison between mean values of Rt ankle planter flexion pre- and post treatments in both groups .....	84
(9b)	Percent of change in Rt ankle planterflexion in both groups .....	85
(10a)	Comparison between mean values of Lt ankle dorsiflexion pre- and post treatments in both groups .....	86
(10b)	Percent of change in Lt ankle dorsiflexion in both groups .....	86
(11a)	Comparison between mean values of Lt ankle planterflexion pre- and post treatments in both groups ...	87

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No. of Figure	Title	Page
(11b)	Percent of change in Lt ankle planterflexion in both groups .....	87
(12)	Percent of change in Rhomberg sign pre- and post treatment in both groups.....	89

## **List of Abbreviations**

<b>A/M</b>	: Amperes /meter
<b>AGE</b>	: Advanced glycation end
<b>ATP</b>	: Adenosine Triphosphate
<b>ASTS</b>	: Anterior superior iliac spine.
<b>CIDP</b>	: Chronic inflammatory demyelinating polyneuropathy
<b>CSF</b>	:Cerebro Spinal fluid
<b>CT</b>	: Computer tomography
<b>CTS</b>	: Carpal tunnel syndrome
<b>D</b>	: Dose
<b>DNA</b>	: Deoxy Ribonucleic Acid
<b>DSP</b>	: Diabetic sensorimotor polyneuropathy
<b>E</b>	: Energy.
<b>EF</b>	: Electric field
<b>ELFEMF</b>	: Extremely low frequency Electro magnetic field.
<b>EMF</b>	: Electro-magnetic field
<b>FIG</b>	: Figure.
<b>G</b>	: Gause
<b>GABA</b>	: Gamma aminobutyric acid
<b>He Ne</b>	: Helium neon.
<b>HIV</b>	:Human Immune deficiency virus.
<b>HRV</b>	: Heart rate variability
<b>HZ</b>	: Hertz
<b>ICR</b>	: Ion cyclotron Resonance
<b>IDDM</b>	: Insulin dependant diabetes mellitus.
<b>IG.F.I</b>	: Insulin growth factor I
<b>IPR</b>	: Ion parameter Resonance
<b>IR</b>	: Infrared.
<b>J</b>	: Joules
<b>LASER</b>	: Light amplification by the stimulated emission of radiation.
<b>LILT</b>	: Low Intensity Laser Therapy.