

سامية محمد مصطفى



شبكة المعلومات الجامعية

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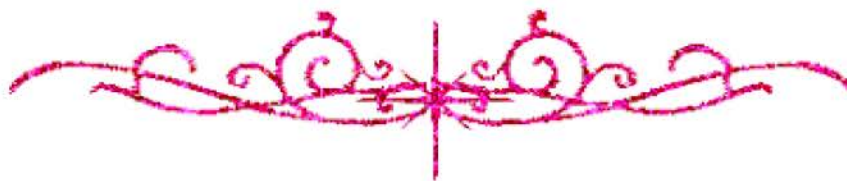
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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

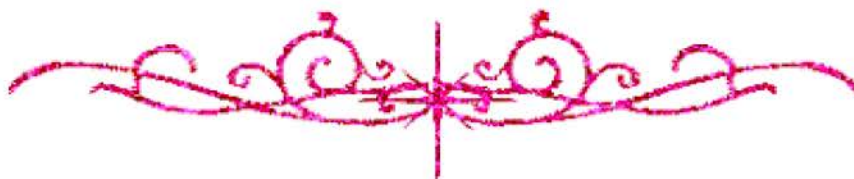
قسم

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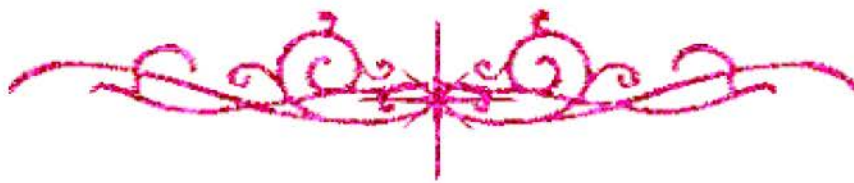
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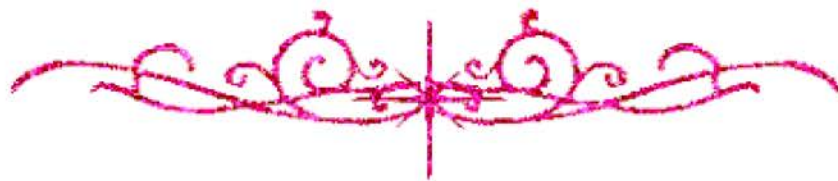
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بالرسالة صفحات لم ترد بالأصل



Menoufiya University
Faculty Of Medicine
Anaesthesia Department

Spinal cord stimulation , a modality ,for chronic pain relief

ESSAY

Submitted for partial fulfilment of Master degree
in Anaesthesia

By

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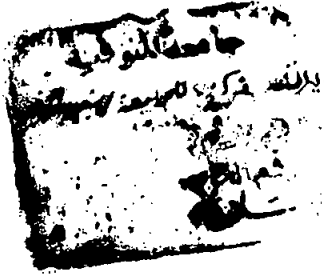
قسم التخدير

اثارة العجل الشوكي كوسيلة لتخفيف الآلام المزمنة

رسالة مقدمة من

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توطئة للحصول على درجة الماجستير في التخدير من



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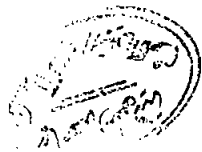
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Contents

	Page:
Introduction	1-3
Anatomy of the vertebral column, spinal cord, meninges, and epidural space	4-15
Physiology of pain	16-26
Historical background	27-28
Poles, placements, procedures, power and parameters	29-47
Mechanism of action	48-53
Patient selection	54-57
Indications	58-68
Cost effectiveness	69-70
Complications	71-74
Assessment of the outcome	75-78
Summary	79-81
References	82-96
Arabic summary	

Table of figures:

Fig. (1)	Page 6	The vertebral column, anterior and lateral views
Fig. (2)	Page 7	The ligaments supporting the vertebrae, lateral and sagittal views
Fig. (3)	Page 8	The spinal cord lying within the vertebral canal, posterior view
Fig. (4)	Page 25	A typical sensory neuron
Fig. (5)	Page 25	The antero-lateral spino-thalamic tract
Fig. (6)	Page 26	The paleo-spino-thalamic tract
Fig. (7)	Page 31	Scheme of an epidural stimulator system with a radio frequency transmitter and the radio receiver and the electrodes
Fig. (8)	Page 43	Tuohy needles, quadruple electrode array in the middle and the needles placed into the epidural space, schematic drawing.

List of abbreviations:

IASP	International association for the study of pain
APN	Anterior pretectal nucleus
cps	Cycle per second
CRPS	Complex regional pain syndromes
DC	Dorsal column
DR	Dorsal root
DT	Discomfort threshold
FBSS	Failed back surgery syndrome
ms	Milli-second
MS	Multiple sclerosis
NYHA	New York heart association
PT	Perception threshold
PVD	Peripheral vascular disease
PW	Pulse width
RF	Radio frequency
RSD	Reflex sympathetic dystrophy
SCS	Spinal cord stimulation
TENS	Transcutaneous electrical nerve stimulation
WDR	Wide dynamic range

Introduction

stimulation of the nervous system can produce analgesia in patients with chronic pain .(Brian, 1994).

Inspired by the Gate theory proposed by Melzack and Wall in 1965 , spinal cord stimulation (SCS) has evolved as an effective, safe, testable , reversible and less invasive modality for relieving different conditions of neuropathic pain , such as angina ,peripheral vascular disease (PVD), peripheral neuropathy , phantom limb pain , multiple sclerosis and others. (Edward, 1999).

Although it was firstly used in USA, now it is estimated that more than 12,000 patients worldwide annually are subjected to spinal cord stimulation . Success requires careful patient selection , meticulous technique and a comprehensive patient management. (Meyerson, 1996).

Spinal cord stimulators can be implanted epidurally either by the percutaneous or the laminectomy techniques .Assessment of the outcome is usually difficult to be done, specially when considering the cost – effectiveness of spinal cord stimulation. (Burchiel, 1998).

As other treatment modalities , spinal cord stimulation has some complications , but fortunately , most of them are usually avoidable and not dangerous. It is important to emphasize that spinal cord stimulation is not designed to replace standard therapeutic measures but to supplement them. (Romano et al, 1998).

With the improvement of the technology, very advanced stimulators are now available offering a very superior efficacy