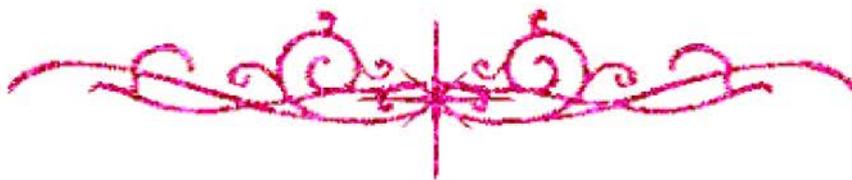


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شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



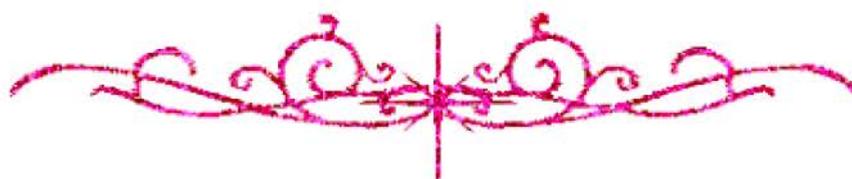
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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

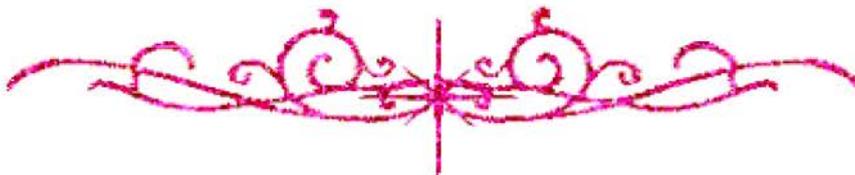
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



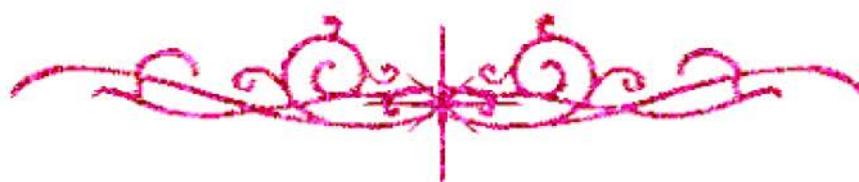
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شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



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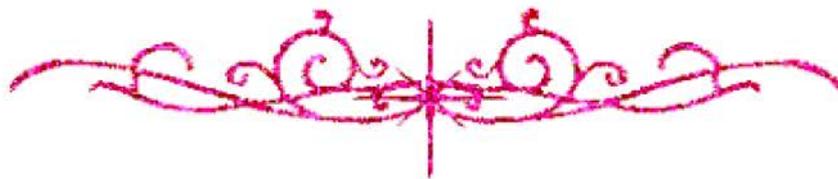


شبكة المعلومات الجامعية



بالرسالة صفحات

لم ترد بالأصل



دكتور محمد السيد محمد راجح
٢١٩٩٩ / ٤ / ١٩

**EPIDURAL CORTICOSTEROID AND LOCAL
ANESTHETIC INJECTION VERSUS
INTERFERENTIAL CURRENT IN
TREATMENT OF SCIATICA**

THESIS

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*Submitted in Partial Fulfillment Of Requirement Of The
Master Degree in
" Physical Medicine & Rehabilitation "*

By

EL- SAYED MOHAMED HAMID RAGEH
(M.B.B.CH.)



SUPERVISORS

Prof. Dr

ABDEL- AL AHMED DARWEESH

Prof. Of Physical Medicine
and Rehabilitation
Faculty Of Medicine
Tanta University

Prof. Dr

HAMED AHMED HILLAF

Prof. Of Physical Medicine
and Rehabilitation
Faculty Of Medicine
Tanta University

Dr . .

OSAMA MAHMOUD SHALABY

Assist . Prof . Of Anesthesiology and Intensive Care
Faculty Of Medicine
Tanta University

**FACULTY OF MEDICINE
TANTA UNIVERSITY**

1998

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
الْحَمْدُ لِلَّهِ الَّذِي
خَلَقَ السَّمَوَاتِ وَالْأَرْضَ
وَالَّذِي يُضَوِّبُ الْمَوْتَى
إِنَّ رَبَّهُ لَسَدِيدٌ
إِلَىٰ عَرْشِهِ الرَّحِيمُ
الَّذِي يُخَوِّضُ الْغَوَّاصِينَ
الَّذِي يُصَوِّرُ الْبَرْنَ
وَالَّذِي يُنَزِّلُ الْمَطَرَ
إِنَّ رَبَّهُ لَسَدِيدٌ
إِلَىٰ عَرْشِهِ الرَّحِيمُ

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It is a pleasure to express my deepest statitude to **Prof.**

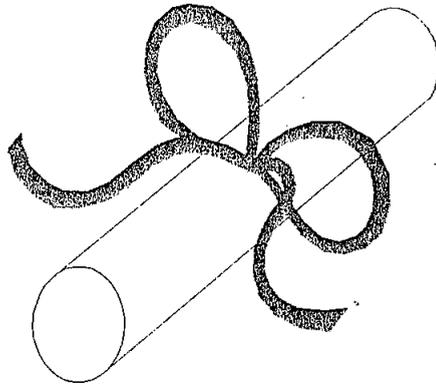
Dr. ABD. EL-AAL AHMED DARWISH Professor of physical Medicine & Rehabilitation , Faculty of Medicine , Tanta University who very kindly , and senerously save much of his time and experience in helping, suiding and advising me .

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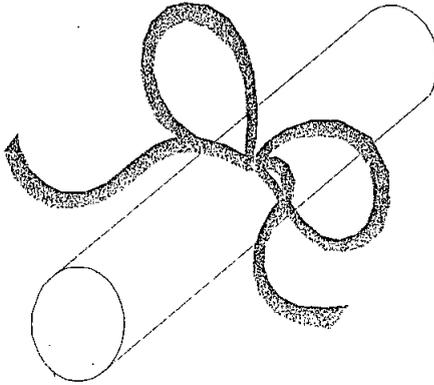
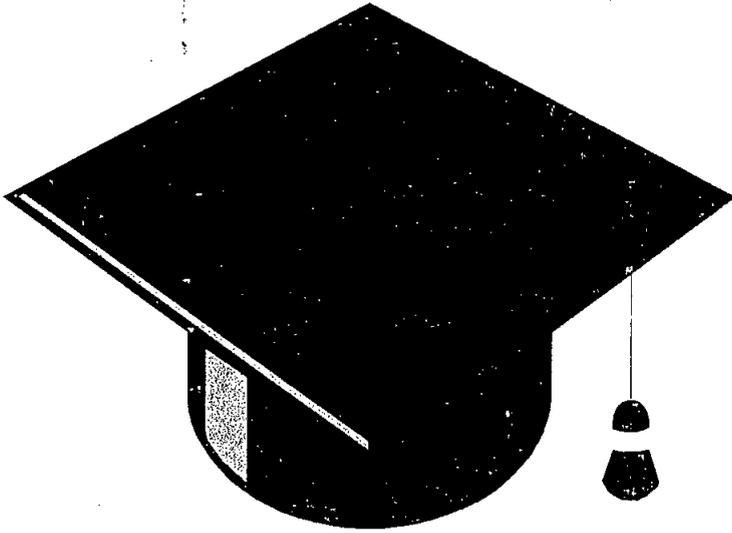
INTRODUCTION & AIM OF WORK

Sciatica is defined as pain radiating from back into the buttocks and into the posterior and / or lateral aspect of leg ⁽¹⁻²⁾ .

In the past, Inflammation of the Sciatic nerve was thought to be the most common etiological factor. Now, lumber disc herniation is the most common cause of Sciatica. Other many causes should be considered in the differential diagnosis ⁽⁴⁸⁻⁴⁹⁾ .

Eighty to ninety percent of individuals complain of low back pain at some times in their life ⁽⁶⁾ with a total cost estimated to be between 16 billion to 50 billion dollars annually ⁽⁹⁾ . The proportion of the adult population with low back pain at any given time is 6.8% and sciatica represents 12 % of them ⁽¹⁰⁾

So , aim of this work is to compare between the effect of local epidural injection of corticosteroid with local anesthetic in the sacral hiatus and interferential current in treatment of sciatica .



REVIEW OF LITERATURE

Anatomy :

- Lumbar spines average 18 cm in length and account for 25% of height of spinal column . The lumbar segments are responsible for most flexion - extension movement. In fact, 75% of lumbar flexion - extension movement occurs at lumbosacral joint. Approximately 20% of lumbar forward and backward bending occurs at the L₄-L₅ level and the remaining 5% taking place between L₁-L₃ ⁽²⁾ . So 95% of disc herniation occur at the level of L₄₋₅ or L_{5-S1} level. ⁽¹⁴²⁾

Lumbar disc

The intervertebral disc is a fibrocartilaginous remnant of embryonic notocord . It consists of an ovoid paracentrally placed gelatinous nucleus pulposus contained within the firm concentric rings of the annulus fibrosus and within the cartilaginous plates of the vertebral bodies above and below.

The disc acts as a cushion between the vertebral bodies and counteracts the axial compression forces of weight bearing . It also permits and restrains limited flexion - extension and lateral bending movement between pairs of vertebral bodies . The elastic properties and biochemical function of the disc depend on the water content of the nucleus which gradually diminishes from 88% of volume of nucleus at birth to 66% at age of 70 ^(3 - 4) .

Lumbar disc is normally wider anteriorly than posteriorly. This tilts the bodies backward to form the normal lordotic curve of lumbar spine.

The annulus is a thick lamellated fibrous ring that blends with the posterior longitudinal ligament. Blood vessels enter and leave the disc through tiny perforations in the central cartilagenous plate. These vessels obliterate during the first three decades of life. The atrophy of disc blood vessels during maturation could be the underlying cause of progressive desiccation, collapse and degeneration of the discs seen with aging.

The disc counteracts forces that vary from 30 to 300 ps in supine and sitting position measured by intradiscal needle connected to a pressure transducer ⁽⁵⁾.

As function fails with age, the stresses and strains of weight-bearing are shifted to facets. Degenerative hypertrophy of adjacent vertebral osseous and ligamentous tissues leading to osteophyte proliferation characteristic of lumbar spondylosis ⁽⁶⁾.

Nerve supply and pain mechanism

The recurrent nerve of Luschka is a branch of lumbar posterior ramus that innervates the adjacent vertebral segment. It enters the root lateral to the ganglion outside the foramen and receives sensory branches emerging along the foraminal floor of dura, posterior longitudinal ligament, and the annulus but not from nucleus of the

disc. It also receives the lateral branches from the facet joint capsule and erector spinae muscle ⁽⁷⁾ .

The discogenic back- leg pain may result from loss of intrinsic anatomical integrity of the disc causing inflammatory or mechanical stimulation of the free nerve endings within the disc capsule .

In lumbar disc protrusions the threshold for nociceptive responses to mechanical stimulation of nerve root may be lowered by inflammation or odema resulting in leg pain due to light pressure on the root by a bulging disc.