

سامية محمد مصطفى



شبكة المعلومات الجامعية

# بسم الله الرحمن الرحيم



سامية محمد مصطفى



شبكة المعلومات الجامعية



# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





سامية محمد مصطفى



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 تغيرات



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



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# بعض الوثائق الأصلية تالفة





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# بالرسالة صفحات لم ترد بالأصل



# COMPARATIVE STUDY OF SPINAL BUPIVACAINE VERSUS BUPIVACAINE FENTANYL IN PELVI-ABDOMINAL OPERATIONS

A Thesis  
SUBMITTED FOR PARTIAL FULFILLMENT OF MASTER DEGREE  
IN  
ANAESTHESIOLOGY

By  
*Aly Abdel-Naby El-Borace*  
(M.B., B.Ch.)

*E. F. Godall*

Supervised By

*Samy*  
Prof. Dr. Sami Mohamed Haseeb  
Professor of Anaesthesiology,  
Faculty of Medicine (Males),  
Al-Azhar University.

*Omar Abdel-Aleem*  
Prof. Dr. Omar Abdel-Aleem Omar  
Professor and Chairman of  
Anaesthesiology department,  
Faculty of Medicine, Menoufiya University.

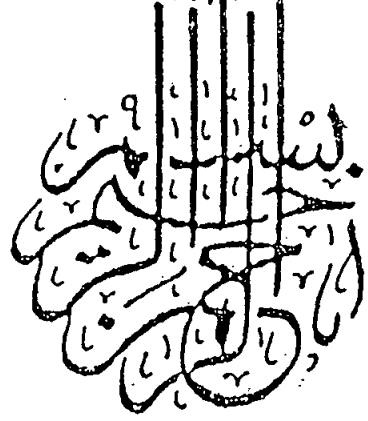
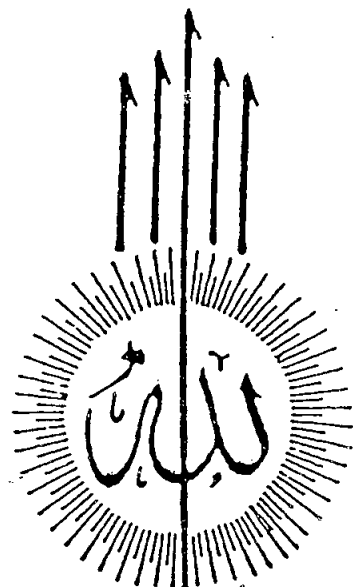
*Samy*  
Dr. Khaled Mohamed Abdel-Azim  
Lecturer of Anaesthesiology,  
Faculty of Medicine, Menoufiya University.

*Khaled M.  
A. Azim*

FACULTY OF MEDICINE  
MENOUIYA UNIVERSITY  
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قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا  
عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

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## Contents

	Page
1- Introduction .....	1
2- Review of Literature .....	3
- Anatomical Consideration .....	3
- Physiological Concepts .....	16
- Pharmacology of Local Anaesthesia .....	20
- Pharmacology of Opioids .....	34
- Intraspinal Opioid injection .....	46
- Subarachnoid block .....	50
3- Aim of the work .....	58
4- Materials and methods .....	59
5- Results .....	61
6- Discussion .....	83
7- English Summary .....	93
8- Conclusion .....	95
9- References .....	98
10- Arabic Summary	

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# INTRODUCTION



## **INTRODUCTION**

Injection of local anaesthetic into subarachnoid space produces spinal anaesthesia. The history of spinal anaesthesia since the work of *August Bier in (1899)*, has been characterized by wide swings in popularity.

Spinal anaesthesia can be used in conjunction with light general anaesthesia and possibly intrathecal opioids as a balanced anaesthesia technique, (*Morgan GE and Mikhail MS, 1996*).

Intrathecal opioids frequently are used in the management of postoperative pain. Although intrathecal morphine provides prolonged pain relief of up to 24 hours, its routine use has been limited because of the risk of delayed respiratory depression ( *Sami K and Viars P, 1981*).

Fentanyl is much more lipid-soluble than morphine and hence does not tend to migrate intrathecally to the forth ventricle in sufficient concentrations to cause respiratory depression. (*Etches RC, et al. 1989*).

Neuraxial administration of opioids in conjunction with local anaesthetics improves the quality of intraoperative



## *Introduction*

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analgesia and prolongs the duration of postoperative analgesia, (*Abouleish E, et al. 1991*).

lipophilic opioids (e.g. fentanyl) have a very fast onset compared with lipophobic opioids (e.g. morphine) and when administered together with a local anaesthetic, many of their clinical actions can happen during the intraoperative period (*Leighton BL, et al., 1989*).

It has been observed that the intrathecal or epidural administration may be accompanied by a number of side effects, the most undesirable side effects of spinal narcotics is moderate to severe respiratory depression (*Cousins MJ and Mather L.E, 1984*).

The major advantage of pain relief by spinal opioids is the absence of motor and sympathetic blockade and of postural hypotension. The benefits to the patient include adequate post operative analgesia, better pulmonary function and earlier ambulation (*Hughes SC, 1986*).



# REVIEW OF LITERATURE



“ Anatomical Consideration ”

- Vertebral column:- It is composed of units called Vertebrae separated by intervertebral discs. It is made of 33 vertebrae: 7 cervical, 12 thoracic, 5 lumbar, 5 sacral and 4 or 5 coccygeal vertebrae . The sacral and coccygeal vertebrae are fused in adult life .
- A typical lumbar vertebra consists of :
  - a) *The Body* : which is weight-bearing .
  - b) *The Vertebral Arch*: which is composed of two pedicles and two laminae. The pedicles of different vertebrae are separated by intervertebral foraminae which give passage to spinal nerves. The arch surrounds and protects the spinal cord and its coverings.
  - c) *Two Transverse Processes* : arise at the junction of pedicles and laminae and one spinal process arises at the junction of the two laminae . They give attachment to the ligaments and the muscles acting on the vertebral column.
  - d) *Two superior and two inferior articular processes* (Fig.1).
- The Intervertebral Discs :-

Constitute about one quarter the length of the vertebral column. They are fibrocartilagenous joints (2ry cartilagenous joints). The disc is composed of an outer part called annulus



fibrosus and a central elastic mass called nucleus pulposus which accomodates itself to change in shape during movement between the vertebrae .

If a lumbar puncture needle is accidentally pushed too far through the subarachnoid space into the annulus , the nucleus pulposus may prolapse and cause siatica .The intervertebral disc gives the cord its flexibility and counteracts the shocks applied to the column .

The vertebral arch , its processes and connecting ligaments are the anatomical parts of greatest interest to the anaesthetist , for it is in this region that the needle is passed to introduce the local anaesthetic solution into the subarachniod or epidural space (*Ellis H and Feldman S, 1988*) .

#### - Curves Of The Vertebral Column :-

In the foetus , the vertebral column presents a gentle curve with concavity forward . In the third to 5th month after birth when the child begins to hold up his head the cervical curve develops ; this is convex forwards . At the begining of the 2nd year when the child begins to walk the lumbar curve develops ; this is convex forward . The curves of the vertebral column can thus divided into :-