



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

**"THE EFFECT OF GABA ANTAGONISM ON
OPIOID POTENTIATION:
A POSSIBLE MECHANISM OF
TRAMADOL ANALGESIA"**

Thesis Submitted for partial fulfillment of M.D.
in Anesthesiology and Algology

Presented by
Monzer Mahmoud Faiad
M.B.B. CH & M.Sc

Supervised by

Prof. M.Omar Tawfik
Professor of Anesthesiology,
I.C.U. and Pain Relief
National Cancer Institute
Cairo-University

Prof. Fatma Abdel Halim
Mahmoud
Professor of Pharmacology,
Faculty of Medicine
Cairo-University

Dr. Nadia Ismail Hassan
Ass. Prof. of Anesthesiology,
I.C.U. and Pain Relief
National Cancer Institute
Cairo-University

B ACK

National Cancer Institute
Cairo University
2000

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

ABSTRACT

In the present study, we explored possible anti GABA effects which may accompany Tramadol HCL action in therapeutic doses (clinically) GABA_A antagonism can potentiate morphine analgesic effect and in Supra therapeutic doses (pharmacologically).

Clinically : the work is based on giving Tramadol versus morphine as post operative analgesia via PCA, half of admitted patients will be premedicated with midazolam versus placebo, and again half of the out coming patients will receive either Tramadol or morphine plus flumazenil (GABA_A antagonist) and the other half will receive Tramadol or morphine without flumazenil. Then post operative assessment of vital functions, degree of pain relief score and side-effects at fixed time intervals.

Pharmacologically: I. Experiment for Behavioral responses of rats to assess alertness, mobility and reaction to auditory stimuli.

II. Experiment for Convulsive responses of rats : by giving convulsive doses either of picrotoxin, or Tramadol with or without flumazenil then assessing time and number of tremors and convulsions in certain time.

Key words:

Clinical: Pain : postoperative. Analgesics: morphine versus Tramadol HCL. Adjuvants: flumazenil. Premedication: midazolam. Analgesic Technique: PCA.

Pharmacological: Drugs: Tramadol HCL, picrotoxin, midazolam, flumazenil. Technique of administration: intra peritoneal bolus, Test experiments: behavioral and convulsive. GABA Antagonism. Tramadol Analgesic Potentiation.



ACKNOWLEDGEMENT

I wish in this instance to acknowledge my deep gratitude to *Prof. M. Omar Tawfik*, Prof. of anesthesiology I.C.U. and pain relief, national cancer institute, Cairo University, who spared no time, patience or effort in this thesis to come out to the light.

I am indebted to *Prof. Fatma Abdel Halim Mohmoud*, Prof. of pharmacology, faculty of medicine, Cairo University, for her scientific assistance which had firmly established the framework of this thesis, she gave generously her time in close supervision, encouragement, criticism and great help in revising this thesis.

I also wish to express my deepest thanks to *Dr. Nadia Ismail*, assistant Prof. Of anesthesiology, I.C.U. and pain relief, National Cancer Institute. Her guidance and great support will be always very deeply appreciated.

Special Thanks and acknowledgement here for *Dr. Ali Fathy*, lecturer of pharmacology, faculty of medicine, Cairo University for his unlimited support and efforts to establish this thesis.

CONTENTS

CHAPTER	PAGE
I. INTRODUCTION AND AIM OF THE WORK	1
II. REVIEW OF LITERATURE	
- Opioid	3
- GAMMA Amino Butyric Acid (GABA)	18
- Tramadol and Pain Relief	31
- Post-operative Pain management	53
III. MATERIAL AND METHODS	65
IV. RESULTS	
- Pharmacological	73
- Clinical	87
V. DISCUSSION	
- Pharmacological	102
- Clinical	103
VI. CONCLUSIONS	114
VII. SUMMARY	116
VIII. REFERENCES	118
ARABIC SUMMARY	
