



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية
@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

Bvq10

Comparative Study of Haemodynamic Effects and ICP Changes of Remifentanyl & Propofol Using "TIVA" with Conventional $N_2O + O_2$ /Isoflurane in Brain Surgery

THESIS

*Submitted in Partial Fulfillment of
M.D. Degree in ANESTHESIA*

By

Gomaa Zohry Hussein

*M.B., B.Ch., M.Sc. Cairo University
Faculty of Medicine, Cairo University*

Supervised by

Prof. Dr. Omar Wageh Abbas

*Professor of Anesthesia
Faculty of Medicine, Cairo University.*

Prof. Dr. Fatma Abbas

*Professor of Anesthesia
Faculty of Medicine, Cairo University.*

Prof. Dr. Tarek A. Radwan

*Professor of Anesthesia
Faculty of Medicine, Cairo University.*

**Faculty of Medicine
Cairo University
2001**

January 7



بسم الله الرحمن الرحيم

(وانزل الله عليك الكتاب

والحكمة وعلمك ما لم تكن تعلم

وكان فضل الله عليك عظيماً)

صدق الله العظيم

سورة النساء

of 5

the

very

one

and

the

the

the

the

ACKNOWLEDGEMENT

First of all thanks to "**GOD**" who helped me to perform this work.

It has been a great honor to proceed in this work under-supervision of prof. Dr. **Omar Wageh Abbas**, Professor of Anesthesia, Faculty of Medicine, Cairo University. I wish to express my deep appreciation for his advice and support during this thesis.

Many thanks to Prof. Dr. **Fatma Abbas**, Professor of Anesthesia, Faculty of Medicine, Cairo University.

Many thanks also to Prof. Dr. **Tarek Radwan**, Professor of Anesthesia, Faculty of Medicine, Cairo University, for helping me in writing the protocol of this thesis and his guidance throughout this study.

2349

2350

2351

2352

2353

2354

2355

2356

2357

2358

2359

2360

2361

2362

2363

2364

2365

2366

2367

2368

2369

2370

2371

2372

2373

2374

2375

2376

2377

2378

2379

2380

2381

2382

2383

2384

2385

List of Contents

Page

• Acknowledgement	
• Abstract	
• Introduction	i
• Review of Literature	1
1- Cerebral blood flow	1
2- Intracranial fluid dynamics	14
3- Normal intracranial pressure	20
4- Physics of intracranial pressure	25
5- Intracranial pressure measurement	28
6- Intracranial hypertension	32
7- Intracranial pressure reduction	41
8- Effects of intracranial pressure on cerebral blood flow	49
9- Inhalational anesthesia	54
10- Clinical pharmacology of propofol	72
11- Total intravenous anesthesia	81
12- Review of the pharmacokinetics and pharmaco- dynamics of remifentanyl	89
13- Pharmacokinetics and Pharmacodynamics of fentanyl	109
• Material and Methods	122
• Results	128
• Discussion	149
• Conclusion	160
• Summary	162
• References	164
• Arabic Summary	

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

LIST OF TABLES

Table No.	Title	Page
1	Normal cerebral physiologic values	1
2	Factors influencing cerebral blood flow	3
3	Etiologic classification of intracranial hypertension states and specific therapy	41
4	Relative potencies of the potent μ -specific opioid	92
5	Pharmacokinetics of remifentanyl compared with alfentanil and fentanyl	102
6	Demographic data of both study groups	136
7	ICP changes preinduction, during operation and early postoperative periods.	137
8	Changes in heart rate preinduction, intraoperative early recovery period.	138

[illegible]