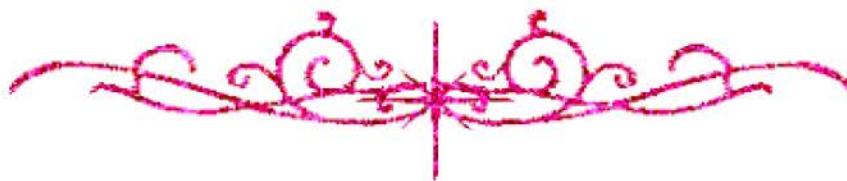


بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

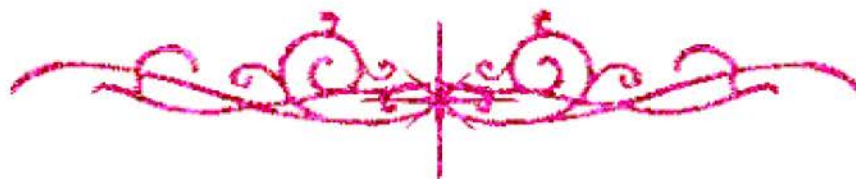
قسم

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



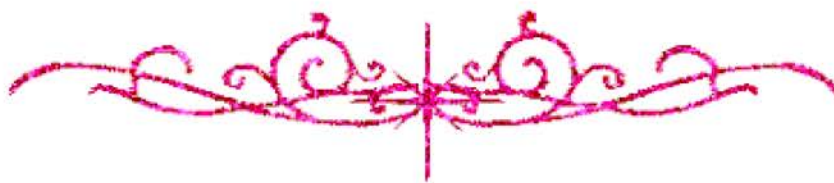
يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



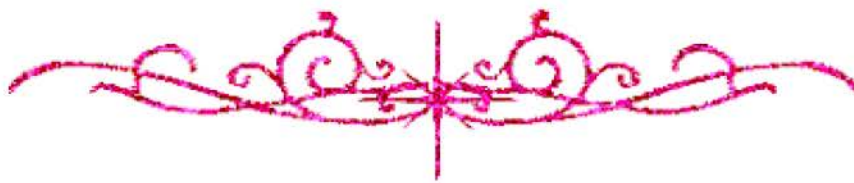


بالرسالة صفحات لم ترد بالأصل





بعض الوثائق الأصلية تالفة



Argon And Low Energy Pulsed Nd-YAG Laser Trabeculoplasty: A Comparative Clinical Study

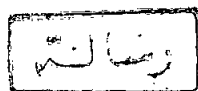
Thesis

Submitted For Partial Fulfillment of
Master Degree in Ophthalmology

617.7059

I. A

By



Ihab Abdel Aziz Mohammed

M.B., B.C.h.

Under supervision

Prof. Dr. Magda Mohammed

Mahmoud Samy

Professor of Ophthalmology

Faculty of Medicine

Ain Shams University

Dr. Hassan Wafik Hefny

Lecturer of Ophthalmology

Faculty of Medicine

Ain Shams University

*Faculty of Medicine
Ain Shams University*

2000





الجنة

د. ٢. صباح عبد العظيم حود

د. ٢. محمد علي عبد المنعم

د. ٢. ماجده محمد حود

د. ٢. محمد

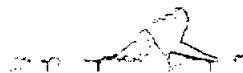
د. ٢. محمد

د. ٢. ماجده

ACKNOWLEDGMENTS

I would like to express my sincere gratitude to Prof. Dr. Magda Mohamed Mahmoud Samy Professor of Ophthalmology, Faculty of Medicine, Ain Shams University, for her generous supervision, stimulating suggestions, keen interest and valuable comments throughout the work.

Indeed, words do fail me when I come to express my sincere appreciation to Dr. Hassan Wafik Hefny, Lecturer of Ophthalmology, Faculty of Medicine, Ain Shams University, who was always there to solve all my problems by giving valuable remarks throughout this work.



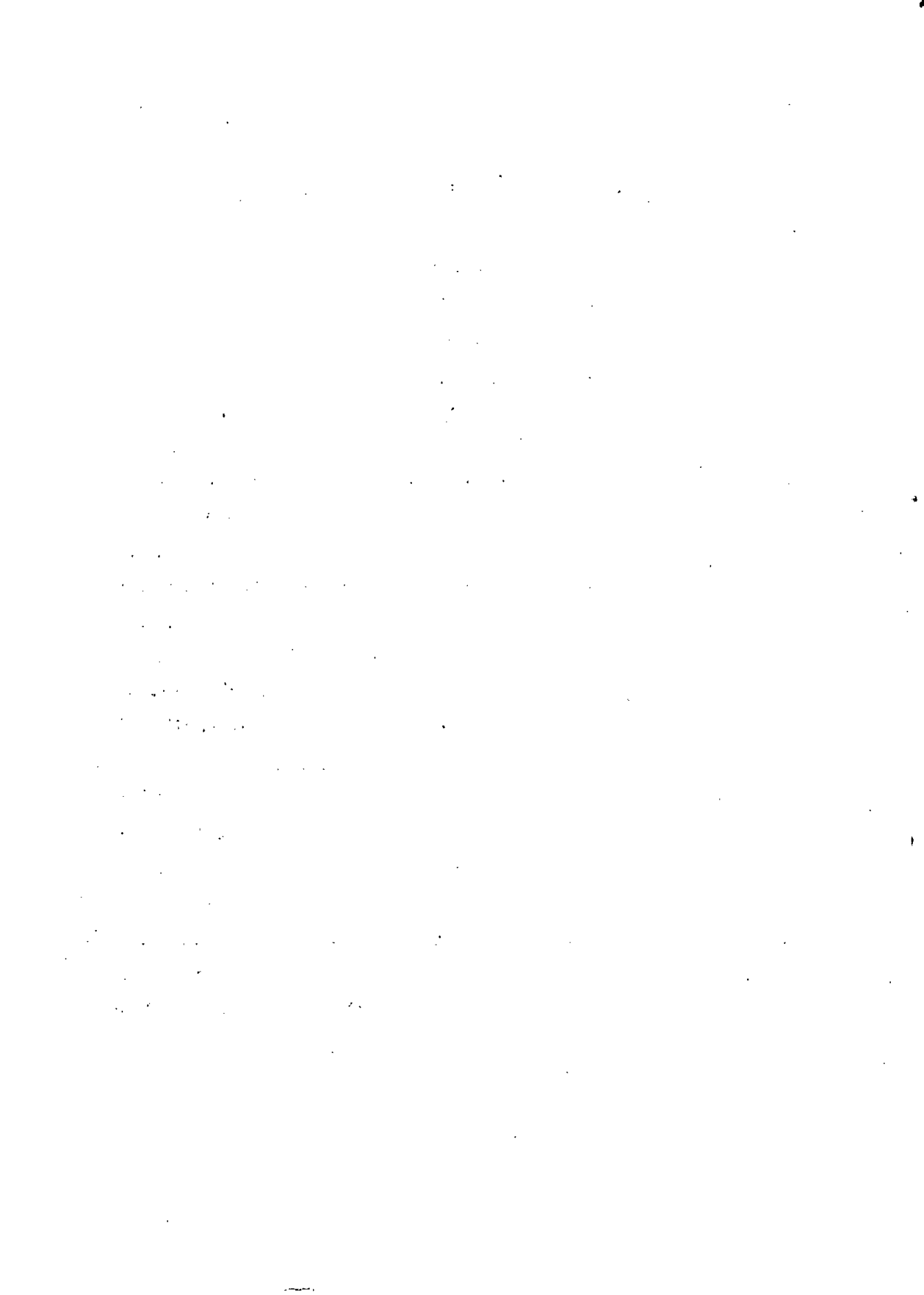
CONTENTS

LIST OF ABBREVIATIONS	i
LIST OF FIGURES	ii
LIST OF TABLES	iv
INTRODUCTION	1
REVIEW OF LITERATURE	3
Anatomy of the angle of the anterior chambre.....	3
- <i>Gross anatomy</i>	3
- <i>Microscopic anatomy</i>	7
-Trabecular meshwork in glaucomatous eyes.....	17
The aqueous outflow.....	19
Anatomy of the aqueous outflow.....	20
Physiology of the outflow system.....	28
Microscopic changes of trabecular meshwork following ALT and Nd:YAG LT.....	40
Glaucoma Laser trials.....	45
Fundamentals of Nd:YAG and Argon Laser.....	51
PATIENTS AND METHODS	57
RESULTS	60
DISCUSSION AND RECOMMENDATIONS	71

SUMMARY	76
REFERENCES	79
ARABIC SUMMARY	

LIST OF ABBREVIATIONS

ALT:	Argon Laser Trabeculoplasty.
Nd:YAGLT:	Neodemium Yatrium Aluminium Garnit Laser Trabeculoplasty.
I.O.P:	Intra-Ocular Pressure.
P.O.A.G:	Primary Open Angle Glaucoma.
CAIs:	Carbonic Anhydrase Inhibitors.
MD:	Mean Deviation.



LIST OF FIGURES

Figure 1	Gonioscopic and cross-sectional view of the anterior segment of the eye.....	4
Figure 2	Structures of the angle of the anterior chamber.....	7
Figure 3	Wide open angle with trabecular hyperpigmentation.....	15
Figure 4	Semidiagrammatic representation of structures of the angle of the anterior chamber.....	16
Figure 5	Normal outflow of aqueous humor.....	19
Figure 6	Schematic view of different layers of the outflow system.....	22
Figure 7	Anatomy of the outflow channel.....	36
Figure 8	The walls of Schlemm's canal and adjacent trabecular meshwork in a composite sectional and three-dimensional view.....	37
Figure 9	Schematic drawing of the trabecular meshwork and Schlemm's canal at different levels of intraocular pressure.....	33
Figure 10	Schematic view of the outflow channels.....	39
Figure 11a	Spontaneous emission of radiation.....	54
Figure 11b	Fluorescence, an atom has an energy decay to a metastable state and emits a smaller	

	amount of energy at a longer wave length.....	54
Figure 12	Incoming photon stimulating emission of photon from atom in excite state.....	56
Figure 13	The laser beam was directed toward the middle of the trabecular meshwork at the anterior edge of the pigmented trabecular band.....	59
Figure 14	Follow up study for successful cases of Group I and Group II as regard Post Laser Study.....	68
Figure 15	Follow up study for all cases of Group I and Group II as regard Post Laser Study.....	68
Figure 16	Pre and Post ALT field changes.....	69
Figure 17	Pre and Post Nd:YAGLT field changes...	70