بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الإلكتروني 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 تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

MONA MAGHRABY

Holmium Laser Enucleation Prostatectomy Versus Open Transvesical Prostatectomy in Prostate more than 80 Grams in Egyptian Men

Thesis

Submitted For Partial Fulfilment of Doctorate Degree in Urology

By

Mohamed Nabil Alnoomani
Master degree of Urology, Ain Shams University

Under Supervision of

Prof. Dr. Hany Mostafa Abdallah
Professor of Urology
Faculty of Medicine - Ain Shams University

Prof. Dr. Mohamed Sherif Mourad
Professor of Urology
Faculty of Medicine - Ain Shams University

Dr. Mohammed Mohammed Yassin
Assistant Professor of Urology
Faculty of Medicine - Ain Shams University

Faculty of Medicine
Ain Shams University
2020

سورة البقرة الآية: ٣٢

Acknowledgment

First and foremost, I feel always indebted to **ALLAH,** *the Most Kind and Most Merciful.*

I'd like to express my respectful thanks and profound gratitude to **Prof. Dr. Hany Mostafa Abdallah,** *Professor of Urology Faculty of Medicine - Ain Shams University for his keen guidance, kind supervision, valuable advice, and continuous encouragement, which made possible the completion of this work.*

I am also delighted to express my deepest gratitude and thanks to **Prof. Dr. Mohamed Sherif Mourad,** *Professor of Urology Faculty of Medicine - Ain Shams University, for his kind care, continuous supervision, valuable instructions, constant help, and great assistance throughout this work.*

I am deeply thankful to **Dr. Mohammed Mohammed Yassin,** *Assistant Professor of Urology, Faculty of Medicine - Ain Shams University, for his great help, active participation, and guidance.*

Mohamed Nabil

List of Contents

List of Tables

List of Figures

List of Figures Cont...

List of Figures Cont...

List of Abbreviations

Abb.	Full term
AUA	American Urological Association
AUA-SS	American Urological Association Symptom Score
BNC	Bladder neck contracture
BPE	Benign prostatic enlargement
BPH	Benign prostatic hyperplasia
BPO	Benign prostatic obstruction
CELAP	Combination Endoscopic Laser Ablation of the Prostate
DHT	Dihydrotestosterone
FDA	Food and Drug Administration
Ho:YAG	Holmium:yttrium aluminium garnet
HoLEP	Holmium laser enucleation of the prostate
HoLRP	Holmium Laser Resection of the Prostate
IPP	Intravesical prostatic protrusion
IPSS	International Prostate Symptoms Score
KTP	Potassium-titanyl-phosphate
LUTS	Lower urinary tract symptoms
OP	Open Prostatectomy
OSP	Open simple prostatectomy
PET	Polyethylene terephthalate
PSA	Prostate-specific antigen
PUL	Prostatic urethral lift
PVUR	Post void residual urine
Qmax	Maximum urinary flow rate
QoL	Quality of life
SUI	Stress urinary incontinence
TAUS	Transabdominal ultrasound
Tm:YAG	Thulium:yttrium aluminium garnet
TRUS	Transrectal ultrasound

List of Abbreviations Cont...

Abb.	Full term
TURP	Transurethral resection of the prostate
UTI	Urinary tract infection

INTRODUCTION

Benign Prostatic Hyperplasia (BPH) is considered one of the most common medical conditions in elderly men affecting their quality of life. BPH is also responsible for a high magnitude of lower urinary tract symptoms of those men. The prevalence of BPH increases from the age of 40 to the age of 90 at which the prevalence becomes 100% [(1)].

After the failure of medical options for those men or developing complications of bladder outlet obstruction due to BPH, the surgical options arise such as transurethral resection of the prostate (TURP) in small gland and open prostatectomy (OP) in the large gland [(2)]. TURP is a very good and effective option but with many complications that may occur such as TURP syndrome and the need for a blood transfusion [(3)].

New laser techniques, which were developed along the past years, have given us a lot of advantages compared to open or endoscopic modalities. These advantages are better control of bleeding, shorter hospital stay and minimum duration of both catheterization and postoperative irrigation [(3)]. Because of these positive points, there was a trend towards the implementation and development of laser techniques along the past years [(4)].

For the prostate larger than 75 grams OP is the preferred technique in areas with restricted access to modern technology [(5)]. But unfortunately OP has more risks such as the need for a blood

transfusion and postoperative hemorrhage [6]. A lot of laser enucleation techniques were studied and Holmium Laser Enucleation Prostatectomy (HoLEP) proved its safety and efficacy in large prostate, but it was found that the literature did not provide sufficient effective randomized controlled trials comparing HoLEP to OP [7][8].

Consequently, our goal was to compare and evaluate the safety and efficacy of HoLEP and OP in large prostate volume more than 80 grams due to BPH in Egyptian Men.