شبكة المعلومات الجامعية

بسم اللّه الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم باللّه 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

بعض الوثائق الأصلية تالفة

شبكة المعلومات الجامعية

بالرسالة صفحات لم ترد بالأصل

Evaluation of Holmium Laser versus Cold Knife in Optical Internal Urethrotomy for the Management of Urethral Stricture

Thesis

Submitted for Partial Fulfillment
of Master Degree in **Urology**

By

Samuel Fayek Tawfeles
M.B.B.Ch
Cairo University

Under Supervision of

Prof. Dr. Wael Ali Maged
Professor of Urology
Faculty of Medicine, Ain Shams University

Dr. Mohamed Ahmed Gamal
Lecturer of Urology
Faculty of Medicine, Ain Shams University

Faculty of Medicine - Ain Shams University
2019

Acknowledgments

First and foremost, I feel always indebted to ***Allah*** *the Most Beneficent and Merciful.*

I wish to express my deepest thanks, gratitude and appreciation to ***Prof. Dr. Wael Ali Maged****, Professor of Urology, Faculty of Medicine, Ain Shams University, for his meticulous supervision, kind guidance, valuable instructions and generous help.*

Special thanks are due to ***Dr. Mohamed Ahmed Gamal****, Lecturer of Urology, Faculty of Medicine, Ain Shams University, for his sincere efforts, fruitful encouragement.*

I would like to express my hearty thanks to all my family for their support till this work was completed.

Samuel Fayek Tawfeles

List of Contents

List of Tables

List of Figures

List of Figures cont...

INTRODUCTION

Urethral stricture is one of the most difficult urological problems to cure adequately and is known to mankind since ages ***(Das, 2007).***

Different techniques have been employed for the treatment of urethral strictures, depending on the stricture length, location, and depth of scar, which include simple dilatation, urethrotomy,urethroplasty and perineal urethrostomy ***(Myers and McAninch, 2011).***

Optical internal urethrotomy (OIU) is one of the most commonly used procedures for treatment of urethral stricture. Data from the National Health Service in the UK during 2006 showed that the OIU or urethral dilatation was used in 93% of cases of short anterior urethral stricture and urethroplasty in 7% of cases of short anterior urethral stricture***(Ghosh et al., 2013).***

Optical internal urethrotomy has the advantage of ease, simplicity, speed, and short convalescence. In 1957, Ravasini described internal urethrotomy under direct vision and used electrocautery to incise the stricture with success rate 50%, but it was not until 1971 that Sachse introduced the sharp-bladed cold-knife urethrotome under direct vision, reporting 80% success rate with this procedure in 1974 ***(Sachse, 1974).***

Laser has been used for the treatment of urethral strictures since 1977. The types of laser that have been used for urethrotomy include carbon dioxide, Nd: YAG, the KTP, the Argon, the Ho: YAG and excimer lasers. No superiority of one type of laser has been demonstrated ***(Herrmann et al., 2012).***

AIM OF THE WORK

The aim of our study is to evaluate and compare the outcomes of Ho: YAG laser urethrotomy with the conventional cold-knife technique as regards treatment outcomes, efficacy and complications.

THE URETHRA

Anatomy of the urethra

Male Urethra

The male urethra is approximately 15-20cm long. In addition to **urine**, the male urethra provides an exit for **semen.**

Anatomically, the urethra can be divided into two main parts:

Posterior urethra divides into:

- **Prostatic urethra**:

The prostatic urethra is the portion of the urethra that traverses the prostate. It originates in the region of the bladder neck, courses roughly 2.5 cm inferiorly, and terminates at the membranous urethra. It lies in a retropubic location and is bordered proximally by the bladder neck and supported distally by the sphincter urethrae externus muscle and the perineal membrane (formerly called the urogenital diaphragm). It is invested in the prostate, a glandular and fibrostromal organ that secretes seminal fluids and has clinical relevance***(Georg,2012).***

The urethra runs through the prostate eccentrically, with most of the prostatic tissue in a posterior and inferior location. The prostatic urethra is surrounded by an inner circular layer and an outer longitudinal layer of smooth muscle. The urethra forms an angle of roughly 45º (range, 0-90º) at the midpoint of