



## Global Journal of Urology

Case Report

Open Access

### Clinical Case Review - First HoLEP using Lumenis. LTD patented MOSES technology at the First center in Iraq using the Lumenis. LTD high-power holmium laser system Pulse 120H with Moses technology

**Duraïd Alhadithi**

Urologist at Al\_Andulus urology clinic, Iraq

**\*Corresponding Author:** Duraïd Alhadithi Urologist at Al\_Andulus urology clinic, Iraq, Email: [Daniels.Vaughan@lumenis.com](mailto:Daniels.Vaughan@lumenis.com)

**Received Date:** Nov 20, 2019 / **Accepted Date:** Jan 22, 2020 / **Published Date:** Jan 24, 2020

#### Abstract

**Introduction:** In Iraq Dr. Duraïd Alhadithi Urologist at Al\_Andulus urology clinic, has introduced a Holmium Laser Enucleation of the Prostate (HoLEP) service as the gold standard for the treatment of Benign Prostatic Hyperplasia (BPH).

**Materials and Methods:** The Al\_Andulus urology clinic, Iraq, purchased the first Lumenis.LTD high power Holmium Laser Pulse 120H with Moses technology system and Dr. Duraïd Alhadithi said ‘although we start using lasers in treating BPH lately, we decided to start from the top and nothing is better now than the Lumenis. LTD Pulse 120H with Moses technology for HoLEP’. The patient for this clinical case review is the 6th patient in the series of 10 treated using the HOLEP with MOSES technology technique at the Al\_Andulus urology clinic, Iraq, he is a 68-year-old smoker, echocardiography study was good EJ F 58 with pre-clinical studies of;

- IPSS 26
- QoL 6
- Q max 8ml/sec
- PSA 2, 85 PSA is 2.85 ng/ml
- Prostate size 75ml by abdominal ultrasound with a middle lobe. And the digital rectal examination was of a uniformly enlarged firm prostate, median sulcus intact with no hard nodules.

**Results:** The patient had an operation time 75 minutes including 10 minutes of Morcellation with no significant blood loss and no drop-in hematocrit a hospital stay of 18 hours total with catheter removal early in morning and the patient passed urine twice before discharge.

**Conclusion:** In conclusion Dr. Duraïd Alhadithi Urologist at Al\_Andulus urology clinic, Iraq ‘After this surgery I believe that HOLEP with MOSES technology using the Lumenis.LTD Pulse 120H Holmium Laser System will be the gold standard method in treating prostates in Iraq due to many factors including minimal bleeding, minimal need for bladder irrigation post operatively, rapid recovery, early removal of catheter, and complete resection of the prostate gland comparing to traditional Trans Urethral Resection of the Prostate (TURP)’.

**Cite this article as:** Duraid Alhadithi. 2020. Clinical Case Review - First HoLEP using Lumenis. LTD patented MOSES technology at the First center in Iraq using the Lumenis. LTD high power holmium laser system Pulse 120H with Moses technology. Glob J Urol. 2: 01-04.

**Copyright:** This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. Copyright © 2020; Duraid Alhadithi

## Introduction

Benign Prostatic Hyperplasia is one of the commonest complaints in Iraqi male patients and across the world. Between 2015 and 2050 the UN estimates that the global population will grow by 2.4 billion, but no less than half of that gain-1.2 billion-will be in the 60+ demographic. This globally ageing and growing population will result in a similarly growing need for cost effective and efficacious treatment of age-related diseases such as BPH. In Iraq until the late 1980's open surgery was the modality of choice to treat such a patient, Radical perineal prostatectomy was first described by Hugh Hampton Young [1] in 1905, and in 1947 Millin [1] described a retropubic approach for radical prostatectomy. In the late 1980's Trans Urethral Resection of the Prostate. The first resectoscope and hence the first TURP was introduced by Maximillian Stern in 1926 in the USA [2] and become popular in Iraq and till now TURP has been the gold standard technique for treatment. Some centers in Iraq now use laser and most of its use is in vaporization techniques of the prostate. The first description of holmium laser resection of the prostate (HoLRP) was reported by Gilling, et al in 1996 [3]. This technique was the first to utilize the cutting properties of the holmium laser to detach large sections of adenoma tissue. A major advantage is that normal saline could be used as the irrigation fluid, which eliminates the risk of TUR syndrome during resection. Dr. Duraid Alhadithi Urologist at Al\_Andulus urology clinic, Iraq used to perform a TURP with a bipolar machine first introduced in the late 1960's. In April 2015 Holmium Laser

Enucleation of the Prostate, HoLEP, was described as "the gold standard for the surgical management of BPH in the 21st Century" by John Michalak, David Tzou, Joel Funk. [4] Based on all available evidence, HoLEP offers patients a safer, more efficient, and at least equally efficacious, if not more efficacious, treatment for BPH related LUTS when compared to other surgical therapies. When compared with TURP, currently the reference gold standard, patients undergoing HoLEP benefit from a shorter catheterization time, shorter hospital length of stay, and fewer complications. In summary, HoLEP is at least as effective as other surgical therapies, including TURP, Open Prostatectomy and other laser modalities, with fewer complications, shorter hospital stays, and decreased catheter time. These benefits make HoLEP the procedure of choice for men seeking surgical relief for BPH related LUTS and the gold standard for the 21st Century.

## Materials and Methods

The Al\_Andulus urology clinic, Iraq, are the first in Iraq using the Lumenis.LTD high power Holmium Laser system Pulse 120H with Moses technology for the treatment of BPH with HoLEP using MOSES technology. MOSES technology was described by Malek Meskawi\*, Marcelino Rivera, Rochester, MN in THE JOURNAL OF UROLOGY HOLMIUM LASER ENUCLEATION OF THE PROSTATE USING MOSES TECHNOLOGY IN TREATING BENIGN PROSTATE HYPERPLASIA showing "Moses technology HoLEP is safe when performed as an outpatient procedure with excellent hemostatic potential up to 150 gram prostate volume" [5] and Yasser

Hussein, Mohamed Ismail\*, Stefano Corti, Francesca Ceresoli, Raffaella Milesi, Ivano Vavassori, Treviglio, Italy in THE JOURNAL OF UROLOGY MOSES, A NEW TECHNOLOGY FOR HOLEP showing The Moses technology makes the HoLEP more effective when performed by an expert operator due to reduction of incision and enucleation times and is able to simplify the learning curve for beginners due to the better development and exposure of enucleation planes [6]. The patient for this clinical case review is the 6<sup>th</sup> patient treated by HOLEP with MOSES technology at the Al\_Andulus urology clinic, Iraq, he is a 68-year-old smoker, echo study good EJ F 58 with pre-clinical studies of;

- IPSS 26
- QoL 6
- Q max 8ml/sec
- PSA 2, 85
- Prostate size 75ml by abdominal ultrasound

The technique used is 3 lobe technique which started by enucleation of median lobe which started with a 5 and 7 o'clock incision then a transvers incision in front of the vena then completing the dissection up to the bladder neck then the left lobe and finally the right lobe. The settings in this case was Moses mode 2 j /60 HZ and for coagulation 1 J/50 HZ.

## Results

Operation time 75 minutes including 10 minutes of Morcellation

Weight of resected prostatic tissue is 60gm

Blood loss not significant and there is no drop in hematocrit

HB before surgery was 12.5g/dl and after surgery was 12g/dl.

Qmax from 8 to 22ml/sec

Ipss from 26 to 5

Qol from 6 to 2

Hospital stay - from 3 PM on day 1 until 9 AM on day 2 = 18 hours total

The catheter removal was early morning and the patient passed urine twice before discharge.

## Conclusion

Dr. Duraid Alhadithi Urologist at Al\_Andulus urology clinic, Iraq 'After this surgery I believe that HOLEP with MOSES technology using the Lumenis.LTD Pulse 120H Holmium Laser System will be the gold standard method in treating prostate in Iraq due to many factors including minimal bleeding, minimal need for bladder irrigation post operatively, rapid recovery, early removal of catheter, and complete resection of the prostate gland comparing to traditional TURP

## References

1. Herbert Lepor. 2005. A Review of Surgical Techniques for Radical Prostatectomy.7: S11-S17. Ref.: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1477597/>
2. History of Urology. Jonathan Charles Goddard. Ref.: <https://bit.ly/2RhsyqC>
3. Ramsay L Kuo, Ryan F Paterson, Samuel C Kim, et al. 2003. Holmium Laser Enucleation of the Prostate (HoLEP): A Technical Update. 1: 6. Ref.: <https://bit.ly/3aHAMAa>
4. John Michalak, David Tzou, Joel Funk. 2015. HoLEP: the gold standard for the surgical management of BPH in the 21st Century. Division of Urology, University of Arizona School of Medicine, PO Box 245077, 1501 North Campbell Ave, Tucson, AZ 85724 Am J Clin Exp Urol. 3: 36-42. Ref.: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446381/>
5. Malek Meskawi, Marcelino Rivera, Rochester MN. 2019. V02-11 HOLMIUM LASER ENUCLEATION OF THE



PROSTATE USING MOSES  
TECHNOLOGY IN TREATING BENIGN  
PROSTATE HYPERPLASIA. 201: 4S.

Ref.: <https://bit.ly/37imeVu>

6. Yasser Hussein, Mohamed Ismail, Stefano Corti, et al. 2019. V02-04 MOSES, A NEW TECHNOLOGY FOR HOLEP. 201: 4S.

Ref.: <https://bit.ly/3azI712>