Moses B Mode for HoLEP: Transforming Enucleation into a Day Case

Charles Nottingham, Tim Large, Chanel Stephens, Deepak Agarwal, Marcelino Rivera, Amy Krambeck
Indiana University/IU Health Department of Urology
Indianapolis, Indiana, USA
Disclosures

AE Krambeck: Boston Scientific and Lumenis
CU Nottingham: None
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Holmium Laser Enucleation of the Prostate (HoLEP)
Clot Retention/Return to OR

- Return to OR 0-6%\(^1\)
- Clot retention 0-3.6%\(^1\)
- Transfusion 0-2%\(^2\)
  - 8.4% in anticoagulated patients\(^4\)
- Risk factor is incomplete resection\(^3\)
  - Sinuses unlikely to coapt with residual tissue → bleeding

The MOSES Technology results in up to double energy transmission per each working distance, eliminating the need to be in full contact with the target.

Bench test results may not necessarily be indicative of clinical performance.

Optimized MOSES for HoLEP

- Novel modification of MOSES technology has been developed and optimized specifically for treatment of benign prostate hyperplasia

- 550 micrometer diameter fiber

- No contact or distance mode
Study Objectives

- To describe perioperative and postoperative outcomes of patients undergoing HoLEP with the optimized MOSES technology

- To compare this group of patients to a historical group of patients who underwent HoLEP using standard holmium:YAG technology
Methods

- Retrospectively collected data on patients undergoing HoLEP using the optimized MOSES technology.
  - Preoperative and postoperative symptom scores, urine flow metrics, and post-void residual
  - Perioperative outcomes

- Compared to a group of 50 patients who previously underwent HoLEP using standard holmium:YAG technology with a 550 micrometer laser fiber
<table>
<thead>
<tr>
<th></th>
<th>Standard 550 μm Fiber (n=50)</th>
<th>New, Optimized Moses 550 μm Fiber (n=62)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (SD) Age in Years</td>
<td>71 (8.8)</td>
<td>72 (8.3)</td>
<td>0.732</td>
</tr>
<tr>
<td>Mean (SD) BMI</td>
<td>28.0 (5.4)</td>
<td>28.2 (5.1)</td>
<td>0.669</td>
</tr>
<tr>
<td>Concomitant Cystolitholapaxy, n (%)</td>
<td>5 (10.0)</td>
<td>8 (12.9)</td>
<td>0.633</td>
</tr>
<tr>
<td>Total Enucleation Time in Minutes</td>
<td>47 (18)</td>
<td>46 (19)</td>
<td>0.729</td>
</tr>
<tr>
<td>Laser Cutting Time in Minutes</td>
<td>23 (7)</td>
<td>24 (10)</td>
<td>0.395</td>
</tr>
<tr>
<td>Laser Hemostasis Time in Minutes</td>
<td>11 (6)</td>
<td>8 (6)</td>
<td>0.035</td>
</tr>
<tr>
<td>Morcellation Time in Minutes</td>
<td>12 (11)</td>
<td>10 (10)</td>
<td>0.561</td>
</tr>
<tr>
<td>Mean (SD) Total Energy Used in kJ</td>
<td>96.0 (39.7)</td>
<td>110.4 (47.7)</td>
<td>0.083</td>
</tr>
<tr>
<td>Enucleated Prostate Weight in Grams</td>
<td>72 (50)</td>
<td>77 (61)</td>
<td>0.640</td>
</tr>
<tr>
<td>Discharged Same Day, n (%)</td>
<td>0</td>
<td>43 (69.4)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Required Repeat Catheterization after Failed Trial of Void</td>
<td>3 (6.0)</td>
<td>2 (3.2)</td>
<td>0.655</td>
</tr>
</tbody>
</table>
Moses B Mode

Modification of Moses Technology
Pushes the bubble away from the laser tip
More efficient Energy delivery
Less fiber break back
More fiber stability
Better hemostasis
Insert Moses B mode video of bubble
Moses B Mode HoLEP

- 77 year old male
- 200 gram prostate on Ultrasound
- Chronic indwelling catheter
- Actively taking ASA 81 mg for cardiac disease
Insert case video
Postop

- 160 grams enucleated
- Discharged home 2 hours postop
- Catheter removal next day in clinic

- Fiber breakback with Moses B mode was 6.9 cm to 6.7 cm
- Fiber breakback with only 1 lobe enucleation with Standard Moses was 6.7 cm to 6.5 cm
CONCLUSIONS

• Moses B mode for HoLEP results in excellent hemostasis without compromising visibility or plane dissection

• Furthermore, there is minimal fiber movement and break back improving overall efficiency of the procedure