The new form of laser enucleation

GreenLEP-Set
Laser enucleation of the prostate using the GreenLight™ Laser and PIRANHA Morcellation System
**GreenLEP**

The new form of laser enucleation

**Pioneering in BPH Therapy**

BPH (Benign Prostate Hyperplasia) surgery has been recently revolutionized by the use of lasers. Patients can now be treated successfully with minimal risk of complications and a shorter stay in hospital.

HoLEP has gained its reputation as the treatment of choice due to its ability to remove the entire adenoma endoscopically with minimal risk of complications. Unfortunately, it has not been adopted by many centers worldwide due to its technical complexity and the long learning curve.

The advent of a high-power GreenLight™ laser (180 watt) with a 532 nm wavelength providing excellent ablative and hemostatic properties has made the laser treatment of BPH much more acceptable and this approach has been widely adopted worldwide. GreenLight™ laser vaporization of the prostate has become a standard treatment in many hospitals and even permits the treatment of high-risk patients.

Criticism of this procedure:
- difficulty of removing the entire adenoma with vaporization
- possibility of a higher reoperation rate over time
- lack of a histological specimen may preclude the diagnosis of occult cancer

Having treated more than 3000 patients personally with the GreenLight™ laser, I decided to try to develop an en-bloc (1 piece) enucleative technique using this laser. I felt that although treating large glands with vaporization was possible, it required longer surgical times and it still was very difficult to achieve volume and PSA reductions similar to those obtained with HoLEP.

**GreenLEP – the new way**

GreenLEP or Green Laser Enucleation of the Prostate, allows complete enucleation of the adenomatous tissue using 80 watts for cutting and 40 watts for coagulation, benefiting from the excellent hemostasis provided by the GreenLight™ lasers, which makes subsequent morcellation an extremely safe procedure that can be performed under perfect visibility. This laser allows urological surgeons to start their initial cases performing vaporization and when sufficient experience has been gained, to progress to combined procedures with middle-lobe only enucleation, and then move on to en-bloc gland enucleation, starting with medium-sized prostates.

Of course, successful GreenLight™ enucleation requires the use of the best endoscopic instruments and camera system. I have been able to develop this technique on the platform of superb Wolf instruments that provide a choice between a 24 Fr. laser Continuous Irrigation Resectoscope for smaller glands, also ideal for prostate vaporization, and the same instrument in a 26 Fr. version for larger prostate glands.

I am always impressed by the speed and safety of the new PIRANHA morcellation system, enhanced by the new Vmax blades. This morcellator is a true game-changer: morcellation of a 120 g gland can be performed in less than 10 minutes, making the enucleation procedure a very fast and competitive procedure.
The perfect system
For laser treatment of very large prostate adenomas

The new, economic treatment for large adenomas with the GreenLight™ laser

The GreenLEP Set from Richard Wolf provides an innovative surgical method which uses the GreenLight™ laser to carry out enucleation of tissue chips with minimal bleeding. The precursor models PVP and HPS can also be used for this. Richard Wolf supplies a special "Freestyle" laser insert for this purpose. Outstanding handling, patented and optimum vision and improved irrigation conditions (50% inflow and 50% outflow) are the key benefits of this advanced BPH therapy. The treatment period for patients with medium-sized or very large prostate volumes is considerably reduced and the efficiency of the treatment is significantly increased. A single laser fiber is generally sufficient for successful treatment using this technique.
"Freestyle" laser instrument
for enucleation using the GreenLight™ Laser

- Complete freedom of movement with the "Freestyle" working insert
- Vibration-free fiber guidance
- Maximum irrigation performance

Unrestricted freedom of movement
The GreenLight™ "Freestyle" working insert guarantees perfect freedom of movement allowing users to maneuver in an axial and radial direction without any restriction. The laser fiber can be guided freely between thumb and index finger to provide the fiber guidance that has proved so successful with all the GreenLight™ laser instruments.

Vibration-free operation, patented laser guide
A patented laser guide specially designed for the GreenLight™ laser fiber prevents vibration and oscillation at the fiber tip. This has considerable advantages when working since with this the user always views a steady image. It also ensures that the distance to the tissue remains constant and this reduces adherence of tissue to the fiber to a minimum.
Classic TUR handling
Telescope protection
Can be rotated through 360°

Richard Wolf markets a special GreenLight™ Laser Resectoscope specially designed for proponents of the classic TUR method. The axial movement of the fibers is achieved here through the working element. Optimum visual and irrigation conditions are offered here as well as a vibration-free fiber guide. The use of a passive resectoscope working element prevents the fibers from being drawn back into the working lumen and hence precludes potential destruction of the telescope and sheath. The Laser Resectoscope provides handling that is familiar to instruments for classic TUR. Rotating the working element permits the GreenLight™ laser fiber to be rotated through 360°.
Effective morcellation of tissue structures

Richard Wolf markets its own tissue morcellator for shredding the prostate tissue produced during the process of enucleation. The exceptionally powerful, safe and easily operated PIRANHA tissue morcellator simplifies the GreenLEP technique and expedites the intervention. The enucleated tissue is morcellated within the bladder, sucked out simultaneously and then collected. The size of the morcellated tissue chips is sufficiently large to enable subsequent histological examination.

High speed for treatment success

The new dimension for efficiency is 16 g/min. The PIRANHA Blade Vmax is responsible for this exceptionally high average volume of removed tissue. Its new cutting geometry and a more aggressive design of cutting teeth increase the efficiency of morcellation in an impressive way. The result is significantly shorter operating times.
Maximum efficiency

The main features of the Piranha Tissue Morcellator from Richard Wolf are speed and efficiency. The tissue structures are sucked in by the morcellator under controlled conditions with oscillating movements, efficiently morcellated and collected in a separate collection tank. However, the morcellated tissue chips are big enough to undergo histological examination.

Absolute safety

The combined suction and cutting port of the morcellator prevents the mucous membrane of the bladder from being sucked in inadvertently. Furthermore, the atraumatic, distal tip of the morcellator and the optimum view of the cutting window minimize potential risks of injury.

High speed for Piranha

The special cutting geometry of the new PIRANHA Blade Vmax permits a much higher cutting speed. Highly efficient morcellation is achieved in conjunction with the strong suction power. The sterile packed disposable blade guarantees uncompromising sharpness and immediate availability.
## Ordering data

### System components

<table>
<thead>
<tr>
<th>GreenLEP Sets</th>
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<tr>
<td><strong>GreenLEP Set I “Freestyle” 26 Fr.</strong></td>
<td>Comprising:</td>
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<td></td>
<td>Microprocessor-controlled high-power suction pump with LCD display, 100–240 V/50–60 Hz (2208001), rocker foot switch (2030108), connection cable (2208121), bottle holder (64031.381), sound absorber (pack of 3) (35100.115), vacuum hose (8170.6554), 2 x power cable (2440.03), overflow protector/bacteria filter (pack of 10) (2228.901), secretion holder 2000 ml (8170.655), PANOVIE Telescope (8654.422), working element “Freestyle” (8632.914), Morce Scope (8970402), pressure ball (103.00), luer-lock tube fitting (886.00), cleaning brush (6.01), autom. seal (8920.311), continuous irrigation rotation outer sheath “E-line”, 26 Fr. (8655.374), continuous irrigation inner sheath “E-line”, 24 Fr. (8655.3841), rotatable adapter (8654.3742), dilation obturator (8654.175), viewing obturator (8415.12), rotation morcellator (8970.011), Power Control Generator (2303.001), Power Stick M 4 handle (8564.021), connection cable (8564.851), disposable tube set (pack of 10) (41702208), disposable tissue collector tank (pack of 10) (2208120)</td>
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<td><strong>GreenLEP Set II “Freestyle” 24.5 Fr.</strong></td>
<td>Like Set I but with:</td>
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<td>24.5 Fr. continuous irrigation sheath instead of 26 Fr. continuous irrigation sheath</td>
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<tr>
<td><strong>GreenLEP SET III resectoscope 26 Fr.</strong></td>
<td>Like Set I but with:</td>
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<td>resectoscope working element instead of “Freestyle” working insert</td>
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<tr>
<td><strong>GreenLEP SET IV resectoscope 24.5 Fr.</strong></td>
<td>Like Set I but with:</td>
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<tr>
<td></td>
<td>24.5 Fr. continuous irrigation sheath instead of 26 Fr. continuous irrigation sheath and “Freestyle” working insert</td>
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<tr>
<th>Piranha Blade Vmax</th>
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<tr>
<td><strong>PIRANHA Rotation Morcellator (pack of 3)</strong> disposable ø 4.75 mm, WL 335 mm</td>
<td>49700113</td>
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<tr>
<td><strong>PIRANHA Rotation Morcellator (pack of 3)</strong> disposable ø 4.75 mm, WL 385 mm (for Storz Scope)</td>
<td>49700103</td>
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NEW! Specifications subject to change without notice.

www.richard-wolf.com