



SEE FOR YOURSELF AT AUA BOOTH #1413

Urologists around the world have selected AMS as their treatment option for patients with BPH.

GreenLight Video Presentations by Physician Experts

See GreenLight experts moderate procedural videos involving challenging cases: patients with large glands or with complex anatomy, patients on anti-coagulation therapy, previously treated patients, and more...

GreenLight for Complicated Cases

Large Median Lobe, Anti-Coagulated Patients and Previous Surgical Treatment Patients

Sunday, May 18
11:00 am – 12:00 pm

Mahmood Hai, M.D.
Affiliates in Urology, Westland, MI

Advanced GreenLight PVP for Large Glands

Monday, May 19
1:30 pm – 2:30 pm

Ricardo Gonzalez, M.D.
Clinical Assistant Professor of Urology,
Baylor College of Medicine,
Houston, TX

GreenLight as a First Line Treatment

Tuesday, May 20
11:00 am – 12:00 pm

Gregg Eure, M.D. F.A.C.S.
Assistant Professor of Urology,
Eastern Virginia Medical School
Norfolk, VA

Hands-On Wet Lab

Experience the capabilities of the HPS at our wet lab and discover for yourself why over 300,000 patients worldwide have been treated with GreenLight PVP.

SPOTLIGHT

GREENLIGHT™ LASER THERAPY NEWS

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GreenLight HPS and the Potential for More Efficient Vaporization

In this issue of *SpotLight*, we're talking about how the technological advancements of the GreenLight™ High Performance System (HPS) allow for more efficient vaporization of the prostate.

If you're currently a GreenLight PV user, you may be interested in learning more about how the increase in power and improved beam characteristics of the HPS unit may allow you to perform laser vaporization of the prostate more efficiently while still maintaining the clinically proven safety and efficacy profile that you and your patients expect.

If you're not currently a GreenLight practitioner, the articles in this month's issue may shed some light on how this modality has been shown to be a safe and effective therapeutic alternative for a wide spectrum of prostate sizes and configurations.¹

In the end, it's the data that counts. GreenLight has been used to treat more than 300,000 men worldwide, and more than 100 clinical articles and 150 published abstracts have proven the safety and efficacy of this laser therapy. Now we invite you to learn more about GreenLight HPS and its potential for more efficient vaporization of the prostate.



VISIT GREENLIGHT AT THE AUA

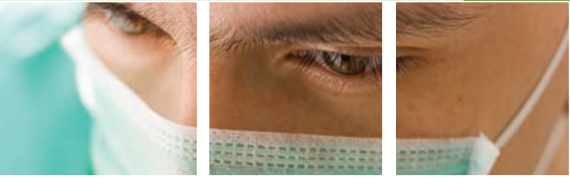
Be sure to visit AMS booth #1413 in Orlando.

We'll be featuring a hands-on GreenLight wet lab all week, as well as video sessions of GreenLight procedures moderated by expert urologists. We also encourage you to stop by and discuss ways to enhance your practice with the GO: GreenLight Optimization Program.

¹ Te AE, The next generation in laser treatments and the role of GreenLight high performance system laser, Rev Urol. 2006;8 (suppl 3): S24-S-30



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Technological Features That Differentiate GreenLight HPS From PV

GreenLight Laser Therapy offers clinical outcomes equivalent to Transurethral Resection of the Prostate (TURP) for the treatment of BPH, with fewer complications. More than 100 clinical articles and 150 published abstracts have proven the safety and efficacy of GreenLight: no significant risk of TUR syndrome, fluid absorption or blood transfusion, and less than 1% of reported cases of erectile dysfunction.

Refinements to the original 80-watt GreenLight PV technology have led to the new GreenLight High Performance System (HPS), which boasts significant utility advantages over its predecessor.

"The two key factors leading to increased vaporization efficiency are the improved beam collimation (Fig. 1) and the increased power with the 120-watt HPS unit," says Doug Stinson, Director of New Product Development at American Medical Systems, who has been closely involved with the new unit's enhancements.

"What those factors give you is high power density over a broad range of fiber-to-tissue spacings," says Stinson. The PV has a more divergent beam – the farther you get back from the tissue, the more the beam spreads out, which can decrease vaporization efficiency by insufficiently heating the prostatic tissue.

"That may also make the PV system more technique dependent," he points out, "because with the PV, you have to stay very close to the tissue, approximately .5 mm, in order to create the necessary power density to effectively vaporize the tissue.

With the HPS, you can operate at 3 mm away from tissue and still have a faster vaporization than the PV at .5 mm, (Fig. 2) independent of the wattage setting on the laser system."²

"In fact, our testing shows that if both units are set at 80-watts, the HPS removes up to 115% more tissue over the same period of time (Fig. 2)," says Stinson. "Add on that the ability to titrate the power up to 120 watts, and vaporization efficiency is significantly improved over PV." Prostates of all size and tissue composition can be treated more efficiently?²

"Because efficient vaporization is now possible further away from tissue, this may reduce the chance of tissue adhering to the fiber tip," Stinson notes. With fiber degradation comes a loss of vaporization efficiency. "If this happens, the user has the ability to increase the power of the laser to help compensate for loss of vaporization efficiency, but if a fiber has degraded to a significant degree, it may then be necessary to switch to a new fiber in order to complete the procedure. HPS may help preserve fiber life in this regard, thus preserving vaporization efficiency," says Stinson.

2 Kang HW, Jebens D, Mitchell G, Koullick E, Malek RS. Experimental study on bovine prostatic tissue vaporization: quantitative comparison between GreenLight PV and HPS laser systems; American Medical Systems 2008.



CARSON WONG, M.D., F.R.C.S.C., F.A.C.S. ON PROSTATE VAPORIZATION

Carson Wong, M.D., F.R.C.S.C., F.A.C.S., practices adult urology at the University of Oklahoma Medical Center. He is Assistant Professor of Urology at the University of Oklahoma Health Sciences Center and the Chief of the Section of Endourologic, Minimally Invasive and Robotic Surgery. Clinical areas of interest include robotic surgery, stone disease treatment and prevention, endourology, oncology and minimally invasive treatment of urologic diseases. In addition to clinical practice, Wong's research interests include ablative therapies for kidney cancer, laser surgery, new technologies for the treatment of stone disease, oncology and tissue engineering. Today he shares his thoughts with SpotLight readers about GreenLight HPS™ laser vaporization efficiency in the treatment of BPH.

Background with GreenLight Laser Therapy

I have been a GreenLight user since 2005. Bringing this technology to the state of Oklahoma, I performed 160 cases with GreenLight PV,[™] the 80-watt KTP unit, over a 12 month period. Then, at the American Urological Association meeting in 2006, we purchased one of the first permanently placed HPS units. Since then, it has been the exclusive GreenLight unit that has been used in our practice.

HPS and Vaporization Efficiency

The 120-watt HPS unit, with its higher power and more collimated beam, allows more effective energy delivery per unit surface area, providing a more efficient rate of prostate vaporization. This would allow a similar size gland to be treated within a shorter time period relative to its 80-watt predecessor. The higher power and more collimated beam also potentially means that tissue vaporization may be less affected by tissue composition.

Secondly, with the 80-watt KTP unit, there was an issue with the unit having only one pedal. If you wanted to switch from the vaporization to coagulation mode, you had to reset the unit and wait to proceed, then switch back; and someone had to be stationed at the unit to do that. With the HPS, the control has been returned to the surgeon. There are separate foot pedals for vaporization and coagulation and a third switch allows the physician to turn the laser into the "ready" or "standby" position at his or her discretion. The advantage of this is that you increase operating efficiency because you don't have to wait to reset the laser as with the 80-watt KTP unit.

As was true with the PV system, safe technique is mandatory with the HPS. That means you always know where the aiming beam is prior to stepping on the foot pedal. Do not fire unless you see where the aiming beam is. Also, it is crucial for the surgeon to know where their surgical landmarks are. To maximize procedural efficiency, while maintaining patient safety, it is important to create a systematic approach that is right for you.

Treating Larger Glands

In the past with the 80-watt unit, if I had a large gland (over 100 grams), I consented the patient to a staged procedure, saying we might need to do one lobe in one setting, the other in a second setting, based on O.R. time, fluids, efficiency, etc. With the HPS unit, if the glands are over 140-150 grams, I will still prepare the patient by telling them we may require two sessions, but I don't go into it assuming that we will. The HPS unit allows for treatment of such glands without an open prostatectomy.

Less Irritative Voiding Symptoms

I have always said that the key is to maximize energy delivery per unit area. The more energy per unit area, the more vaporization. The less energy per unit area, the less vaporization and more coagulation. The more collimated beam of the HPS fiber should allow for less coagulation, which could result in less irritative voiding symptoms.

The Bottom Line: Data

Data will show that laser vaporization with the GreenLight HPS laser system can effectively relieve lower urinary tract symptoms related to BPH. Secondly, it has the potential to do this more efficiently than the 80-watt KTP unit (with the higher power, more collimated beam, foot pedal, etc.), while maintaining a low incidence of adverse events.



Fiber Distance vs. Vaporization Efficiency

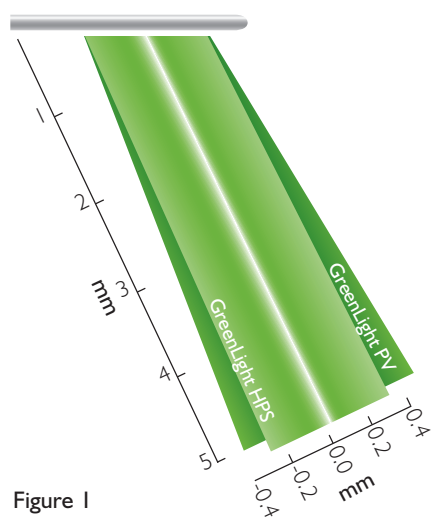


Figure 1

Precision Beam

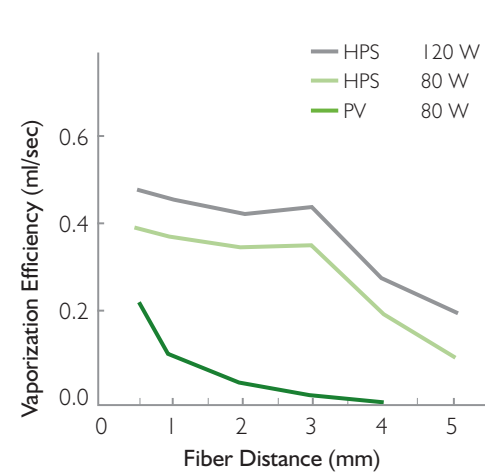


Figure 2



DATA ON FILE AT AMS SHOWS THAT IF BOTH UNITS ARE AT 80 WATTS, **THE HPS IS CONSIDERABLY MORE EFFICIENT AT VAPORIZATION.**²