EVOLVE® for Treating BPH

— Win-Win Proposition for both Patient and Physician

Laser Vaporization of the Prostate

The recent experience of Chicago-area urologist—Dr. Ning Wu—adds further indication of the safety, efficacy, and convenience of using EVOLVE® for laser vaporization of the prostate. For many years, transurethral resection of the prostate (TURP) has been the gold standard for treating benign prostate hyperplasia (BPH). With new, minimally invasive procedures, patients can choose from a variety of surgical options, all of these yielding variable degrees of success or failure. However, laser vaporization of the prostate using the EVOLVE® laser provides a reduction of symptoms, reduction in post-void residue, relief of urinary retention, and cessation of BPH medications.

EVOLVE®
for BPH Treatment

EVOLVE® — Doctor's choice over the others

Dr. Wu has gained experience with the use of a number of lasers, such as GreenLight, Holmium, and EVOLVE®, for prostate vaporization. In the end, Dr. Wu chose the EVOLVE® laser over other types because the EVOLVE® laser vaporizes any type of prostate tissue — either highly vascularized or highly fibrotic. In addition, its sturdy fiber design allows more precise positioning of the fiber tip over the prostate tissue and, therefore, facilitates accurate vaporization. The other lasers failed to provide these crucial characteristics.

EVOLVE® laser vaporization lives up to TURP "Gold Standard"

In the past two years, Dr. Wu achieved remarkable success using EVOLVE® to treat BPH in patients at his practice in suburban Chicago, including an observational group of 138 patients— results shown below. In his experience, EVOLVE® could deliver everything that TURP could provide. For example, Dr. Wu found that he could use EVOLVE® to treat any prostate size that TURP was capable of treating (prostate size ranging from 19 to 151 gm with a mean of 67gm).

"My patients experienced less discomfort and faster recovery as a result of using EVOLVE® for laser vaporization of the prostate — with the 980 nm wavelength, there were much fewer cases of post-op bleeding and not a single patient returned to surgery due to immediate post-op bleeding."

— Dr. Ning Wu

But there were additional benefits, as well. According to Dr. Wu, less recovery time was needed by his patients, compared to his experience using TURP. In addition, the number of days that patients required a catheter was substantially less with EVOLVE®.

Moreover, his patients experienced considerable improvements, demonstrated through substantial reductions in International Prostate Symptom Scores (IPSS). In fact, the mean IPSS reduction for the group of 138 patients was 10 points — a reduction from a mean score of 17, preoperatively, to a mean score of 7, postoperatively.

Dramatic improvements in International Prostate Symptom Score

Pre-Operative IPSS: Distribution of symptoms

Symptoms Distribution	Mild	Moderate	Severe
	range 0-7	range 8-19	range 20-35
	10.8%	52.7%	36.6%

Overall IPSS	
Maximum	35
Minimum	0
Mean	17
SD	8

Post-Operative IPSS: Distribution of symptoms

Symptoms Distribution	Mild	Moderate	Severe
	range 0-7	range 8-19	range 20-35
	60%	38.7%	0.9%

Overall IPSS	
Maximum	30
Minimum	0
Mean	7
SD	5

Dramatic reduction in patients with *severe symptoms* **36.6% vs. 0.9%** post procedure

10-point reduction in mean values for IPSS **17 vs. 7** post procedure

EVOLVE® reduces post-void residue and urinary retention

Patients achieved a mean reduction of 296 cc for post-void residue (PVR). In addition, among the 46 patients with urinary retention, only four patients remained in urinary retention, postoperatively. The failure to resolve urinary retention in these four patients was most likely due to loss of bladder contractility secondary to long-term obstruction. Forty-two patients were voiding, directly following the procedure and at 3-months follow-up. After the 3-month follow-up, patients with satisfactory outcomes were not required to return for follow-up. Of the 138 patients, only 17 patients required follow-up more than one year postsurgery.

Before	
PVR Residue (cc)	
Maximum	4000
Minimum	0
Mean	427
SD	581

After	
PVR Residue (cc)	
Maximum	664
Minimum	0
Mean	131
SD	152

Unique features of the EVOLVE® laser 980 nm wavelength

The 980nm wavelength of the EVOLVE Laser provides the highest combined absorption in water and hemoglobin. Since the prostate contains a high percentage of water, the EVOLVE Laser vaporizes tissue effectively. Absorption of the laser energy by hemoglobin leads to excellent hemostasis combined with precise ablation of the obstructing tissue. A unique advantage of this system, compared to other laser systems such as GreenLight, is that it can vaporize all types of prostate tissue, whether it is highly vascularized or highly fibrotic such as in patients who have been taking Finasteride or Dutasteride. These medications render prostate tissue highly fibrotic and less vascularized. Therefore, GreenLight laser, which has a wavelength best absorbed by hemoglobin, becomes very inefficient when vaporizing fibrotic tissue. Similarly, patients who have BPH recurrence after previous TURP tend to have fibrotic tissue, making it less amenable for vaporization with GreenLight laser. The photos below illustrate the precise removal of tissue and resulting clearance.

EVOLVE® reduces need for BPH medication

With some minimally invasive procedures, it is not uncommon for some patients to remain on BPH medication after surgery. However, in this observational group of 138 patients, there was a reduction in the use of BPH medications from 87% to only 6%.