Why Should I Consider Holmium Enucleation of the Prostate? (HoLEP)

As I often say in the office when a patient sees me about prostatic obstruction, “there as many ways to treat your prostate as there are urologists”. This is certainly an exaggeration, but not by too much. The simplest ways to break down the available treatment options is as medical and surgical, and then look at the surgical options in further detail.

Medical Therapy

Medical therapy for prostatic obstruction is broadly divided into two categories of medication, the alpha-blockers and the 5-alpha reductase inhibitors. Alpha-blockers are most commonly used as they are very well tolerated and effective quickly for all patients with obstruction. This class of medications includes tamsulosin (Flomax), afluzosin (Uroxatral), silodosin (Rapiflo), and older medications like terazosin (Hytrin), and doxazosin (Cardura). The older medications tend to have more side effects like light headedness and dizziness and have variable dosing because of this side effect. The three newer medications are much better targeted at the prostate and have fewer side effects at the expense of being more costly to patients. These medications actually cause relaxation of the prostate and opening of the bladder to ease passage of urine and are therefore usually effective for men regardless of how large their prostate is.

In addition to the alpha-blockers, two medications, finasteride (Proscar) and dutasteride (Avodart) are available. These are 5-alpha reductase inhibitors that block the conversion of the testosterone produced by men into a more potent form of male hormone By blocking this conversion, these drugs actually shrink the size of the prostate. Due to this mechanism of action, these drugs work best when a man has a very large prostate. Additionally, these drugs take time to work. A minimum of 2-3 months and it can take up to 6-9 months to see maximum effects. Side effects of these two drugs are typically gynecomastia (enlargement of the breast tissue), decreased libido and worsening erectile function. Though uncommon, these can be very bothersome, and are certainly reasons to consider stopping them.

There is also a newer medication on the market that combines tamsulosin and dutasteride into one pill.

There are also a myriad of herbal supplements available in the market. Unfortunately, none have been shown in systematic study to improve urinary function. They are probably not dangerous but of very questionable benefit.
Surgical Therapy

Surgical therapy includes several different procedures with varying risks and success rates at treating prostatic obstruction. It is beyond the scope of this handout to detail everything but I will cover them all briefly. The easiest division to make is between the office based treatments and the procedures that are done in the operating room.

Office based treatments include microwave and radiofrequency ablation of the prostate. Both have been around for some time and have plenty of advocates. Typically these procedures involve a 30-minute office visit where a catheter or cystoscope is inserted into the urethra and energy is delivered to the prostate to shrink it. These procedures have some good effectiveness and can be helpful but often times the effect fades after one to two years and patients then face further treatment of resuming medications.

The operating room treatments include the traditional transurethral resection of the prostate (TURP), plasma vaporization of the prostate (often call a “Button” TURP), various lasers including the Greenlight/KTP, the Diode laser, the Revolix laser, the Cyber TM, and the holmium laser. Also for very large prostates, an open operation can be done. As you can see many lasers have been developed for the treatment of prostatic enlargement.

For men with smaller prostates any treatment in the operating room will probable work, but when a man has a prostate that is roughly double the normal size there are distinct advantages to the lasers over the traditional TURP. This includes less blood loss and the ability to do the operation while you are on blood thinners like aspirin, coumadin/warfarin, and other drugs. Additionally, the lasers use saline for an irrigant during surgery eliminating the rare but serious complications that can occur with other irrigants used for TURP. Also, with a laser procedure you can usually be sleeping in your own bed the night of surgery and don’t have to stay in the hospital more than a few hours.

So what are the important questions to ask my urologist if I am considering surgery for my prostate problem?

There are some key things to ask your urologist about what he suggests you do for your prostate problem if you are considering surgery.

- **How many of these procedures do you personally do in a year?**
  - You want a surgeon who does this operation at least a couple times a month to assure that he or she is well practiced and familiar with the technique. That equates to a minimum of 20-25 per year.

- **Why do you do this particular type of operation as opposed to the other available options?**
  - A urologist needs to be familiar enough with all the choices to make an informed decision for his/her patients. He/she should be able to confidently tell patients why one particular type of surgery is in his/her opinion the best available.

- **What is your personal experience with success and side effects?**
  - We all tend to want to paint a successful picture, but quoting data from an expert in the field and not personal experience is a warning sign to patients.

- **Do you have specialized or advanced training in this area?**
  - Any urologist who takes the extra time to complete additional training should be commended. This takes commitment on his/her part and is probably indicative of an exceptional level of dedication to patients and aiming for the best possible outcomes.
So Why Choose the HoLEP Procedure here at University of Arizona?

As in other areas of medicine, in surgery a treatment must show in well designed studies that it is as effective or more effective than the standard therapy, in this case TURP, with the same or less risks to the patient. All the lasers have been shown to be safe for patients, but only the holmium laser has been shown to be effective beyond 10 years after the operation. Here in lies the problem, the other lasers have not been available long enough to collect this data though it may be available someday.

Often times in medicine, we are convinced that “newer is better” but without good long-term follow-up it is hard to say that the newer lasers are even as good as TURP or the HoLEP procedure.

Here at University of Arizona, we are recognized Center of Excellence in HoLEP, one of a handful in the nation. Our urological surgeons hold advanced training certificates in this procedure. They have lectured at the national level as well as trained physicians from all over the States and from as far away as Argentina in the HoLEP procedure. The university is also involved in several trials with other renowned institutions to improve the HoLEP procedure.