MEditorial March 2009

Penile Plastics

Erectile dysfunction (impotence), to a variable degree, is a very common complaint, affecting perhaps 50 % of men in their fifties and going up by 10 % for every decade of life after the fifties. I even see men in their teens and twenties with “ED”--and not all cases are “psychologic”. “Erections not hard enough” for penetration is more commonly seen than complete inability to erect.

The focus on ED over the last 10-15 years has been toward treatment, as opposed to specifically diagnosing a mechanism for impotence. In practice, knowing what may be causing impotence (e.g., atherosclerosis, diabetes, hormonal problems, etc.) does not tend to change the therapy or offer alternative solutions. For example, inadequate compression of the penile veins (so-called “veno-occlusive disease”) may be a common causative factor, especially in younger men with lifelong ED problems. However, vascular surgeries attempted to alter the venous drainage from the penis have not “held up” in the long run--and were mostly abandoned in favor of oral drugs, injections, and implants in the late 1990’s.

Although the usual treatment algorithm for ED is oral drugs (e.g., Viagra, Cialis) 1st; then either a vacuum-erection device or penile injections 2nd; and a penile implant 3rd (as a “last resort”), there is no rule stating this is the only proper sequence. You do have a choice.

Probably 25-30% of men or oral ED drugs have a poor response--and even more have side effects (facial flushing, sinus congestion, headache, belching, back and muscle aches) that dampen enthusiasm for their use. Vacuum-erection devices and cumbersome and often do not effect a rigid erection. Penile injections are effective but awkward to do; and detract from the spontaneity and intimacy of sex. Perhaps 20% of patients have significant achiness in the genitals following an injection; and priapism (considered an emergency), a painful persistent erection with poor oxygenation of the penile tissues and risk of further erectile damage, is an outside risk. Be wary of heavily advertised "pseudo"-medical companies that push penile injections for ED—they tend to obfuscate other reasonable options for ED treatment--and their profitability is based on repeated sales of the grossly marked up injectable medications.

Penile implants (penile prostheses) have been around for almost 40 years; their bioengineering is now better than ever. They are manufactured by two main companies in the US. Both make excellent devices. The implants have plastic coatings, either reinforced silicone or biourethane, and are filled with saline. These cannot leak silicone or anything else potentially toxic into the body. Some of the implants expand both in girth and length, thus making the rigid penis seem as large or larger than when the man was younger. The best systems are inflatable, and have three components, including (1) the two penile cylinders, (2) an easily palpable scrotal control device and (3) a saline-filled reservoir placed deep in the pelvis. Surgery takes about an hour,

and most men spend one night in the hospital (rarely go home the same day). About six weeks later after complete healing, the device can be used. Satisfaction rates for men and their sexual partners are upwards of 90%. Most men do not require revision, replacement or removal of their penile prostheses.

A penile implant allows for more spontaneity of sex, as well as multiple coital sessions. Eliminated are side effects of oral drugs; and the problems associated with penile injections and vacuum devices. Complications from an implant including infection, poor fit, and erosion--especially of the cylinders--are rare. Diabetic men, who often need a penile prosthesis, have an acceptably slightly higher complication rate.

My own take is that more men should have penile implants. This is an operation I truly enjoy doing, both from a technical point of view, as well as for the excellent outcomes which I personally see. It is one of those operations to which many men say “no” (without thinking!) in advance; but those who go through with it wonder why they delayed their decision for so long. Men are generally quite happy with these implants and have improved self-esteem. In fact, although men should undoubtedly listen to their wife’s preferences, some spouses will tell their husband “no, it is not important to me”; but having a fully functioning penile prosthesis with rigid erections simulating the man’s former norm is important to his feeling masculine and his emotional health overall. I feel that even an “occasionally”’ used penile prosthesis can improve the status of a marriage negatively impacted by ED.

As opposed to most “plastics” used in surgery, which provide an aesthetic but usually not a functional improvement, penile prostheses are an innovative, safe way to recreate an important function. Their relevance in the treatment of impotence should not be trivialized.

MEditorial February 2009

“Why do I urinate so often?”

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Urination problems, many not requiring surgery or medications, are probably the most common patient issue we hear as urologists. Going to the restroom to urinate “too often”--occasionally with an urgent feeling-- can definitely impair one’s quality of life. More than one trip to the bathroom at night, for many people, is a bother, and can contribute to insomnia and poor daytime performance. There is, however, no “set” definition of what constitutes “too often”—you have to be the judge of what bothers you.

Despite common mythology, many cases of “urinating too often” are not related to problems in the urinary tract. Recall the kidneys filter the blood. The amount of urine produced by otherwise healthy kidneys is

related to (1) the amount of volume in the system (a reflection of overall fluid intake) , (2) use of “drugs” that force the kidneys to produce more urine than they otherwise would (e.g., diuretics such as thiazides and furosemide, caffeine, and alcohol) and (3) certain bodily physiologic functions, to some extent hormonal-- these are involved in regulating how much excess fluid is “squeezed” through the kidneys from the blood into the urine--or recaptured from the kidneys back into the bloodstream for inadequate fluid in the body’s vasculature. The kidneys are truly sophisticated organs and are amazingly efficient at preserving the right amount of fluid for minute-to-minute bodily functions—as well as other functions in eliminating “wastes”. Urinating too often seldom means the kidneys are malfunctioning.

Certain non-urologic disease states such as diabetes mellitus and the far rarer diabetes insipidus can inappropriately cause the kidneys to produce urine far too dilute and voluminous for the amount of fluid in the system, leading to frequent/large urinations, dehydration, and excess thirst. Patients with congestive heart failure may pool fluids outside the vasculature while mobile during the day with low urine production; only to have far greater blood flow to the kidneys and elimination of excess bodily fluids (and therefore frequent voiding) at night.

Keeping a diary of all fluid intake and all urine production (as well as listing use of “drugs” as mentioned above) can help us to determine if your urinary frequency is related to the kidney’s urine production or more likely a problem with the lower urinary tract, especially the

bladder (and prostate in men). A diary showing frequent and small voids points us toward problems with the lower urinary tract. Calculating your daily urine production, a high total nocturnal volume of urine compared to (usually much higher) daytime production of urine suggests problems with the way the kidneys are filtering and the signals they are receiving (hormonal and otherwise) at night. For example, it is felt that sleep apnea causes release of a hormone which results in watery/voluminous urine with frequent but large volume/easy voids at night.

For the patient with frequent/small voids, with or without urgency, associated symptoms such as slow flow may point us in the direction of lower urinary obstruction by, e.g., prostate enlargement. A bladder which contracts poorly, sometimes linked to neurologic disease, is another (non-obstructive) cause. Frequency with gross or microscopic blood in the urine could suggest certain prostate diseases or even rarer forms of bladder cancer which infiltrate and stiffen the bladder lining. Frequency with pain are indicators of infection until proven otherwise--but may be from other causes including lower ureteral (originating in the kidney) stones, bladder stones, bladder cancer, and vague types of chronic cystitis such as interstitial cystitis (chronic bladder pain syndrome). Frequency with urgency and low amounts of retained urine in the bladder can sometimes be traced to a common condition now called “overactive bladder”. The need to “go often” is seen in patients whose bladder is neurologically irritable (occasionally in spinal disease and post strokes) and in those who, for whatever reason, have high amounts of residual urine and are “peeing the tip of the iceberg”.

The role of the urologist is to take a good history, do a thorough directed exam, look at the urine, and generate some ideas about the (quite varied) causations of frequent urinating. A “one solution mentality” obviously will miss the mark in most cases. Additional testing, including urine cultures, urine tests for cancer detection, blood tests, cystoscopy (looking inside bladder), non-invasive office bladder scanning, CT scans and urodynamics (physiologic testing of bladder function) may all be needed at times in more difficult cases; but these should not “automatically” be done.

We do, fortunately, have something to offer most patients with these problems so as to reduce ‘bother” and improve quality of life; and on occasion, detect a serious condition. “Urinating too often” is in the mind of the patient--and it is up to the doctor, especially the urologist, to make the mind-body connection.