Incontinence & Prostate Cancer

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I. What is urinary incontinence?

According to The International Continence Society, urinary incontinence is, "The objective demonstration of involuntary loss of urine consequent to bladder and/or sphincter dysfunction."

II. Types of Incontinence

Incontinence can be broken down into three forms, which include stress incontinence, urge incontinence, and mixed incontinence. Stress incontinence is characterized as leakage during physical activity that increases intraabdominal pressure. Most of what is dealt with in connection with prostate cancer and its sequelae is stress incontinence. Urge incontinence is leakage associated with an overwhelming need to urinate, and mixed incontinence is a combination of stress and urge incontinence.

III. How does the process work?

The process is exceedingly complex, but in its most simplistic form, the bladder collects urine. The sphincter, which is for all intents and purposes a circular muscle at the level of the prostate, controls the flow of urine. The sphincter muscle wraps around the urethra. A healthy sphincter stays closed until one relaxes it to urinate.

Essentially, men have two sphincteric mechanisms for control, and when the prostate is removed, men lose bulk and some of the smooth muscle and sphincteric control because the prostate to some degree is contiguous with that smooth muscle. There also can be some damage to the external sphincter mechanism directly and indirectly.

IV. Why am I incontinent?

Incontinence can result from all of the forms of treatment for prostate cancer including radical prostatectomy, radiation and cryotherapy. If the prostate area is treated with any type of energy or surgery, tissue is damaged and problems result.

Fifty-five million men in the world suffer from loss of urinary control, not all of which is related to prostate cancer, and it is still an awareness issue in terms of getting men to talk about the issue.

V. Male Incontinence

The rate of incontinence after prostate cancer treatment is cited to be anywhere from 2.5% to 69%. Risk factors include the degree of nerve sparing, postoperative problems particularly bladder neck contracture, combination/adjuvant treatment, presence of prior disease, and salvage therapy. As someone who deals with treatment after the fact or the complications, men should be counseled to think about these things when they are deciding on a treatment plan.

Post-prostatectomy incontinence often improves within three to six months, and the number of men that require treatment beyond conservative measures ranges from 5% to 8%. For those men, however, the problem can be quite significant. Post-radiation incontinence is a late complication, and it is difficult to predict. In the best of circumstances the bladder tissue gets irradiated, and that damage sometimes takes several years to manifest itself. It is also improving with improved directed therapies.

VI. Why treat incontinence?

I have no happier patients than when they come to me and I can treat them and make them better. An individual's reasons for treating incontinence can vary, but they may include avoiding negative feelings, returning to one's usual lifestyle, regaining dignity, resuming intimacy, saving money on protective garments and improving quality of life. There are very practical things involved such as extra laundry, odor, extra expense, skin irritation and disturbed sleep.

One of the difficulties we have in treating incontinence is objectively quantifying urine loss. It is a problem in the literature too. A lot of the studies have been and still are done using the number of pads used to quantify urine loss, which is not a reliable measure. In most good trials, we encourage pad testing.

VII. Management Options

Patients can manage their incontinence with diapers or pads. Some men are relegated to that, and they think it is normal and they can just live with it. They are focusing on other issues. Medication is a management option, and then, of course, surgery is the mainstay for treatment.

The Cunningham clamp is a device that is clamped on the penis. Some men swear by them, and if that is what keeps a man dry and he is happy, it is fine. A disadvantage is that some patients have significant problems with pressure necrosis. They get ulcerations of the penis, and that becomes a real issue. From a sexual quality of life standpoint, it is not an effective management option.

There are external and internal catheters, which can work, but they are cumbersome and not exactly optimal for most patients, particularly if they are otherwise healthy and have active lifestyles. They are accompanied by an increased risk of infection.

Medication is an option, but there is no FDA-approved medication for stress incontinence in men or women. Antidepressants may have a role to some degree, but it is not a major one. In patients who have an overactive bladder component, anticholinergic medications can be effective. You can improve many patients with that alone.

VIII. Treatment Option

1. Behavior Modification

Behavior modification has a role in the treatment of probably every patient, but at some point it is not what a patient wants to hear. These things, including decreasing fluid intake, voiding frequently, avoiding caffeine and alcohol and avoiding activity that increases intraabdominal pressure, become cumbersome to patients, and they're certainly not going to cure the problem.

2. Pelvic Floor Therapy

Pelvic floor therapy has a role, and there is data to show that if patients engage in a program of Kegel exercises after surgery, the results are pretty good. What it basically probably shows is an earlier return of function. Long-term the jury is still out, but it is a good adjunct. In the grand scheme of things, it is not likely to be helpful for men with significant degrees of control problems.

3. Bulking Agents

Bulking agents can be injected under the lining of the urethral channel to help bulk it up physically, but the problem is the results are very poor with use after prostatectomy. The International Consultation on Incontinence mentioned at its recent conference that the treatment really only results in modest benefit at best. They really don't recommend it. If a patient is a poor surgical candidate, and they want to improve their quality of life a little bit, I may still do it.

4. Surgical Options

a. Sling

The surgical options include male slings and an artificial sphincter, and the option that is pursued is determined by the severity of a patient's incontinence. The InVance sling is an effective treatment for mild to moderate incontinence. Continence is immediately restored, there is nothing to operate, the device is completely hidden inside the body, and the satisfaction rate is quite high at 88%. The AdVance sling is a newer treatment option, which moves away from the bone anchors. It restores the urethra to its proper anatomical position for optimal sphincter function, restoring urinary control. We do not have long-term data.

b. Artificial Sphincter

For men with more severe degrees of leakage or problems, an artificial sphincter has been the gold standard. It is a device that has been around for three decades, and it has a very long track record of success. Some of the happiest patients I have are those who have the AUS. It is a three-component system. There is a pump that lies in the scrotum under the skin next to the testicle. There is an inner tube, which is called the cuff. It is basically an inner tube that surrounds the urethra, and there is a pressure-regulating balloon that goes into the space behind the pubic bone next to the bladder. The pressure-regulating balloon causes the cuff to be inflated with fluid. When a man wants to urinate, he reaches down and push the pump three or four times. It transfers fluid from the balloon back into the

pressure-regulating reservoir, opens up the balloon, and the man voids. It is self-timed, and the pressure-regulating balloon causes the fluid to go back through the reservoir into the pump. The only thing the patient needs to do is pump it three or four times and urinate, and it is the end of the story.

The most notable difference in the surgical options is that the AUS has a 30-year track record of success when it works as opposed to the data for the sling, which spans roughly two years.

IX. What should you do next?

Patients need to see a urologist for treatment of incontinence. They should go to the office visit prepared with questions and ready to discuss the treatment options. The patient's lifestyle and medical condition are important factors.

X. Summary

In summary, incontinence is a common problem, but most cases resolve within six to twelve months. Some treatments are more effective than others, and surgical treatment options offer proven, long-term solutions. Patients with incontinence should speak to a urologist and educate themselves regarding the options that are available.