Sex and Intimacy after Prostate Cancer

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I. Radical Prostatectomy Outcomes for Sexual Function and Incontinence

The World Health Organization defines erectile dysfunction as the inability to get or keep an erection sufficient for sexual relations. Where we see the highest numbers of ED are the multi-centered trials. About 8 out of 10 men at 24 months were struggling with erectile dysfunction, and 72% five years later were still struggling. Erectile dysfunction is the issue after prostate cancer.

II. Laparoscopic/Robotic Prostatectomy

Robotic surgeons define ED all different ways, and we have a lot of trouble figuring out their erectile dysfunction rates because they don't want to use the demarkation as set out by the WHO. There is no doubt that there is decreased hospital stay and less blood loss, but incontinence is still an issue and erectile dysfunction is still a great issue at about 67% in a small study of about 55 men.

Erectile dysfunction is also quite common with radiation therapy and other kinds of treatment for prostate cancer.

III. How does prostate cancer treatment impact sexual function?

The most common side effect of prostate cancer removal, prostate radiation or hormone ablation is erectile dysfunction. First and foremost, ejaculation is going to be affected because basically the pathway for ejaculate has been changed and most of the fluid is no longer there because it left with your prostate. The penis may seem to have gone up into the body after these procedures. The factors can impact how a man feels about himself and his intimate relationship with his partner. An erection is a neurovascular event, and it requires nerve conduction from the penis up to the brain and back down to the penis. It also requires blood flow to the penis. Without those two key elements, a man will have erectile dysfunction. Unfortunately, both of those things are usually affected by prostatectomy and radiation therapy.

IV. Penile Shortening

There are lots of explanations that have been proposed for penile shortening with prostate cancer treatment, but first of all we talked about how a normal erection occurs. When you peel the nerves off the back of the prostate, what happens? Those nerves were never meant to be touched, and just the exposure of the nerves to manipulation can cause trauma and they won’t conduct properly. In addition, the nerves are stretched as they are

pulled off the prostate. Despite nerve-sparing surgery, erectile dysfunction happens in about 8 out of 10 men. The nerves can recover, but research shows us that it takes an average of two years to hit the plateau, which can be very frustrating for a man.

The first occurrence of penile shortening is noted when the catheter comes out. The penis seems to kind of disappear up into the body. The surgeon takes the bladder and re-attaches it to the urethra. The surgeons tell me that they pull the prostate down and they don't pull the urethra up. Whatever the case may be, something is missing, and it makes sense that either way the penis may pull in. In addition, there is unchallenged sympathetic tone, which causes smooth muscle constriction around the blood vessels, which lets less blood in. In addition, smooth muscle changes. Without the nerve conduction, there is decreased blood flow to the penis. With decreased blood flow, there's less oxygen and nutrients that are essential the penis. When the fluctuation between a flaccid and erect penis no longer occurs like a normal functioning male, there are lower oxygen levels in the penis, which causes architectural changes in the smooth muscle. It becomes less elastic, and it makes sense that shrinkage of the penis will occur.

V. Penile Rehabilitation

Our goal with penile rehabilitation is to preserve penile function by increasing blood flow, nutrients and oxygen to the penis to preserve smooth muscle tissue and blood vessel function that has to happen to get erections. In addition, we want to promote smooth muscle relaxation because as the muscles relax the blood vessels dilate. Any change in blood flow brings more oxygen and nutrients and is called "penile rehab." Even without a full erection, if there is a partial or soft erection, there is still a change in blood flow and a working out of the blood vessels. The better the erections the better the workout, but it is still a workout.

VI. Therapies

We use lots of different therapies including the vacuum device, the pills, and the urethral suppositories. There is good research emerging over the last decade that says doing something is critical, and doing something early is very important. The good thing about the vacuum device is that it is totally non-invasive, and it has a 90% success rate. The key is proper training. There were two small studies that showed that those who did not do treatment lost approximately two centimeters in stretch length of the penis, but penile length was preserved with the use of the vacuum pump 10 minutes a day. Thirty-nine men in another study also found that there was less reported penile shrinkage. The most common treatment that doctors want to prescribe when it come to prostatectomy-related erectile dysfunction are oral medications, but the failure rates are as high as 80% because they rely on the nerve conduction. Nothing activates the chemicals, and so they don't work that way. A local treatment is going to work better.

In compelling study after study, we have found that taking oral treatments somewhat regularly did increase the response rate. It has to be taken properly because it doesn't work without sexual thoughts and stimulation, and at nighttime when you get up if you see any fullness, thickness or any stirrings whatsoever, that is called penile rehab. The reason physicians want men to take the pills regularly is because it may help bring more

blood, more oxygen and more nutrients to preserve the architecture of the smooth muscle and keep the penis from shrinking up and hardening.

MUSE can also be used for penile rehabilitation, and a study was done that showed nightly use of alprostadil even on its own, three times a week or more, resulted in an 80 to 85% efficacy rate.

The very first studies that were ever done in penile rehabilitation were done in 1997 in Italy, and he found in looking at those men that alprostadil injections three times a week resulted in 67% reporting a return of spontaneous erections versus 20% who did not get the alprostadil. That is good research that shows us that injections may help you get back your erectile function as well.

VII. Impact of ED on Quality of Life after RRP.

Prostate cancer is a survivable cancer, and after the treatments are over, it is all about quality of life. Studies show that quality of life is number one in the minds of patients. When you treat erectile dysfunction with injections, it improves sexual self-esteem, sexual self-confidence, and the relationship in terms of quality of life. In Europe they did a study where they implanted people right when they did their prostatectomy, and those men had a better quality of life because of those erections than men who were not implanted.

VIII. Side Effects and Barriers to Treatment

There are side effects and barriers to treatment especially as you get more invasive with things like injections. There are good things and bad things with every treatment, and you have to weigh the good and the bad and decide what is right for you. I don't advocate any treatment in particular, but I do advocate for whatever treatment is right for the patient. Surgery and penile implants are another option. We have five proven treatment options. We have vacuum devices, oral agents, MUSE, shots, and surgery.

IX. Key Points

Sexual side effects are common after prostate cancer treatment. Erectile dysfunction negatively impacts qualify of life, but early treatment of erectile dysfunction may improve the return of spontaneous erections. Finally, erectile dysfunction can successfully be treated most of the time.

X. Questions

Participant

Many patients suffer in silence for years. What can be done then?

Jeffrey Albaugh, PhD, APRN

There is a window of opportunity. Even if men don't want to be sexually active immediately, they should look at the options for penile rehabilitation so that if it becomes important in the future the window of opportunity won't be missed. It can be treated later; it just becomes more challenging.

Participant

Are the injections a long-term treatment?

Jeffrey Albaugh, PhD, APRN

All five of the treatments are long-term treatments that men can use for many years to come, and men can also move from one treatment to another depending on what they want to do. First-line treatment, however, includes the pills and the pump because they are the least invasive. Second-line treatments are MUSE and shots.

Participant

If a patient is on androgen deprivation therapy, can he still have erections?

Jeffrey Albaugh, PhD, APRN

The number one side effect of androgen deprivation therapy is very little sex drive, and it can also result in erectile dysfunction. Local treatments will work well, and sometimes even the oral pills will work. MUSE can work too, or sometimes it can be combined with other modalities. A lot of men use multiple modalities.

Knowledge is power, and I am really trying to empower patients so they can access and have the knowledge of how things work, what goes wrong and why, and what can be done to fix it.