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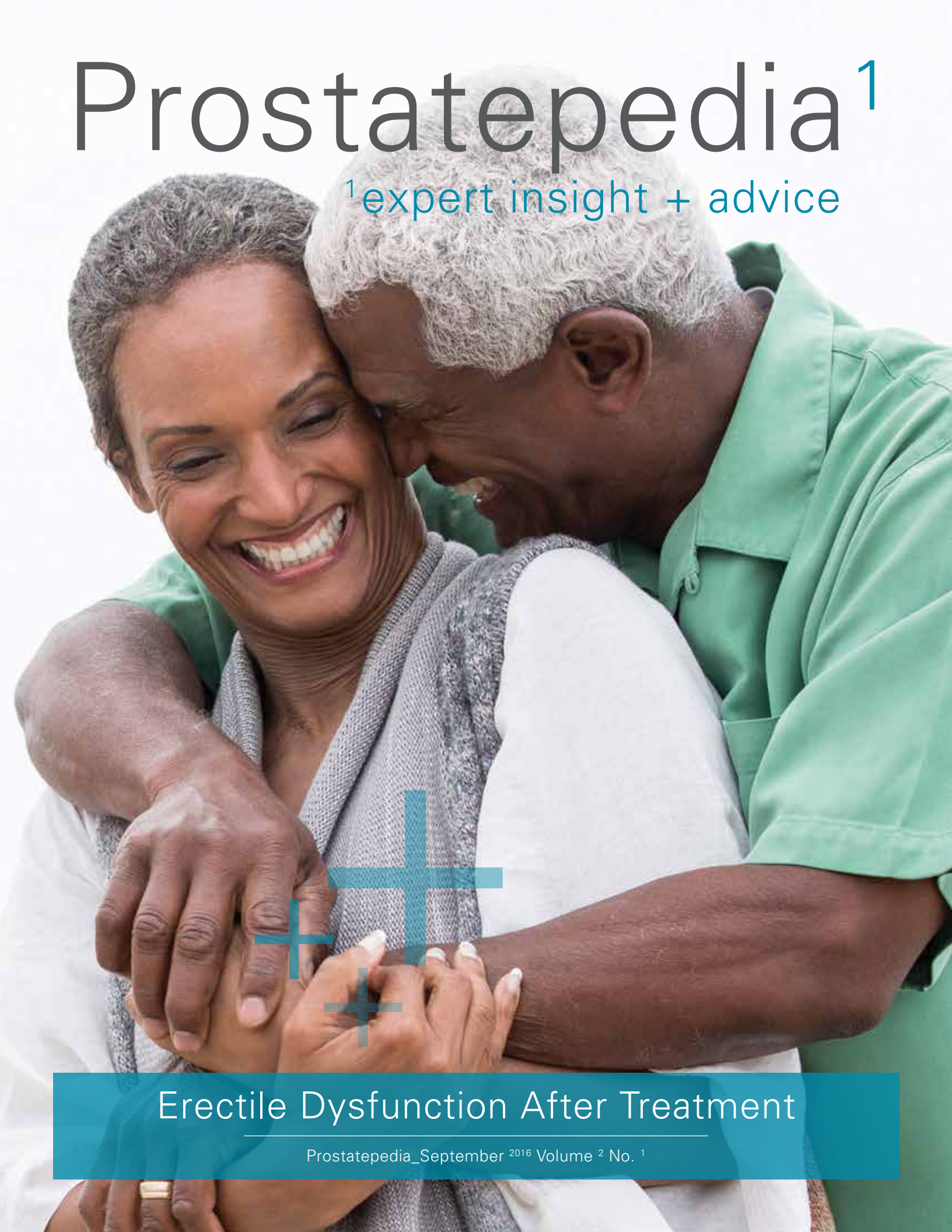

Erectile Dysfunction After Treatment

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This month, we're talking about erectile dysfunction (ED) in men with prostate cancer. The three major prostate cancer treatment tools—surgery, radiation, and hormonal therapy—all result in serious sexual dysfunction in a majority of men. And ED treatment options each pose serious issues with side effects, effectiveness, and cost.

Viagra and related drugs can be helpful for many men. There is extensive medical literature that supports using these drugs after surgery or radiation. Most medical oncologists do not focus on sexual function. I think this may, in part, explain why we do not have well-established programs to counter sexual dysfunction in men on hormonal therapy. With that in mind, I thought it might be worthwhile to mention what has worked in my clinic.

Hormonal therapy can cause severe ED. As a result, the Viagra drug family often does not pose sufficient activity to facilitate vaginal penetration. Fortunately, two drugs have been shown in randomized trials to significantly improve the effectiveness of Viagra. The first drug is losartan, a blood pressure drug that blocks angiotensin, a hormone that causes blood vessels to contract. By blocking the action of angiotensin, losartan causes blood vessels to relax. As erections require relaxation of the arteries to the penis, the benefit of losartan is obvious.

Cabergoline is the second drug that has been shown to improve the effectiveness of Viagra. Cabergoline is a long-acting, very potent dopamine agonist that has been shown to act as an aphrodisiac in both men and women. A randomized trial comparing Viagra alone to Viagra in addition to cabergoline showed improved sexual performance in the cabergoline arm.

While there are a range of other treatment options for men who have been on hormonal therapy and for whom Viagra is not sufficient, I have seen the most success with penile injections and penile implants. Both approaches have a high success rate in our patients, but many men are reluctant to inject their penises and even fewer have elected to get a penile implant. However, those patients who have elected to get penile implants have been very satisfied with the result. As one patient said, "I push a bulb in my scrotum and I get an erection. It stays up until I push a second time. I wasn't that good at 17!"

The bottom line? Talk to your doctor about erectile dysfunction after treatment.

Charles E. Myers, Jr., MD

Jean-Francois Eid, MD
The Penile Implant After Prostate Cancer

Dr. Jean-Francois Eid, of New York City's Advanced Urological Care, is a urologist who specializes in treating advanced erectile dysfunction.

Prostatepedia spoke with him recently about penile prostheses after prostate cancer.

How did you come to focus on erectile dysfunction?

Dr. Eid: I became interested in erectile dysfunction as a medical student. Back in the early 1980s, I heard a urologist lecture about penile implants. During my residency at NewYork-Presbyterian Hospital, we had an ultrasound machine in the department of urology. Nobody was using it, so another Urology Fellow and I started using the machine to do blood flow studies on patients with erectile dysfunction.

I became interested in using penile injections to provide patients with erections. I went from being interested in the *diagnosis* of erectile dysfunction to being interested in *treating* patients with penile injections. Back in the 1980s, we didn't have pills like Viagra and Cialis. We didn't really have any options that worked.

Throughout my training, I always preferred delicate reconstructive procedures that needed fine, precise work, rather than extirpative procedures to remove a big tumor. I found extirpative procedures to be less technically challenging.

My work continues to fascinate me. The patient evaluation requires thorough history-taking and some psychological insight, which is something I enjoy doing. At the same time, you want to make the patient feel comfortable; erectile dysfunction is a somewhat personal and delicate issue. There is a little art and empathy involved in communicating with someone suffering from erectile dysfunction.

> *"When a man has erectile dysfunction, he thinks about it all the time."*

I find it extremely gratifying to make somebody potent again without leaving any traces of the surgery. My goal is to conceal and hide the implant so the patient feels completely normal.

When a man has erectile dysfunction, he thinks about it all the time. It's not something that affects him only in the bedroom. After a while, it fatigues, occupies, and depresses the brain. Every time he sees a love scene in a movie theater or he goes out to have drinks with friends or somebody makes a joke or he sees an attractive person, he is reminded that he has erectile dysfunction. It depresses men tremendously.

The first thing a patient will say after he gets a penile implant is, "I'm a new man. I feel so free. You gave me a new life." It's sort of bizarre, because you would think that somebody would say that if you saved them from cancer or from a heart attack and not from erectile dysfunction.

How does a penile prosthesis work?

Dr. Eid: There are two types of penile implants. One type of penile implant, is always firm and is called a semi-malleable implant. The other is a saline-filled inflatable implant.

The inflatable implant was invented in 1973 and FDA-approved in 1975. It consists of two cylindrical plastic tubes that are placed inside the shaft of the penis and are connected to a pump that is concealed inside the

scrotal sac. The pump is connected to a small reservoir the size of a ping-pong ball that stores the saline when an erection is not needed. The saline fluid is transferred into the cylinders by activating the pump when the patient is interested in being sexually active. It's a hydraulic device that is manually activated. It mimics a physiological erection, while also allowing the penis to become flaccid when an erection isn't needed.

There are two manufacturers, both in the state of Minnesota. Boston Scientific is in Minnetonka. Coloplast is in Minneapolis.

In which patients is the inflatable pump used?

Dr. Eid: This is a great treatment for advanced ED that does not respond to medications such as Viagra or Cialis. In order to optimize the outcome, we have every possible device size available in the operating room; the penis is measured during the procedure, and the correct cylinder size placed in order to maximize the size and quality of the erection. It's difficult to tell which implant is appropriate for which patient until then. The choice of device brand depends on the patient's anatomy, his age, his partner's age, his manual dexterity, whether he has scar tissue, his body habitus, etc.

There are some special considerations for prostate cancer patients regarding reservoir placement (the little ping-pong-ball-like structure that stores the saline fluid). After robotic prostatectomy, surgeons do not close the peritoneum, which is a layer of tissue that separates the abdominal cavity from the pelvis.

Therefore, in order to safely place the reservoir, I perform a second separate incision about one to one-half inch either on the right or the left side of the lower abdomen. The reservoir is then placed from above, underneath the abdominal muscles, and the tubing is tunneled into the scrotal sac to connect with the pump tubing. A separate incision is unnecessary for patients following radiation therapy and is only needed for patients following robotic prostatectomy.

Are there any other considerations for prostate cancer patients?

Dr. Eid: The data on potency after prostate cancer surgery varies tremendously. If you look at the European data published by independent third parties, post-surgery erections returned to normal in fewer than 10% of men. Another 20% responded to pills like Viagra or Cialis. Seventy percent of men after robotic prostatectomy do not respond to oral medication.

Patients need to know that if they wait for more than two years after surgery and recovery of erections hasn't occurred, then it's appropriate to consider a penile implant.

Some patients do use penile self-injections. There are two types of penile injection medication. Caverject and Edex are FDA-approved and can be purchased in drug stores. These injections are safe for long-term use.

There are other types of medications, such as Trimix (mixture of papaverine, phentolamine, and prostaglandin E1), which are not FDA approved for penile self-injection but are most often used by post-prostatectomy patients. Penile scarring, deformity, and shortening will occur over the long run. Trimix should only be used for a couple of years while waiting to see if recovery of potency will occur.

How long does a penile implant last?

Dr. Eid: Penile implants will last anywhere from 15 to 20 years. But when they break, they are easily replaced.

Infection of the device is the most dreaded complication and occurs because of bacterial contamination of the implant during the surgical procedure. The rate of infection varies according to surgeon's talent, experience, and surgical volume. This can be as high as 15% or as low as 2%. Our infection rate is 0.47% based on 3,028 consecutive implants since January 2006. We update our data on a regular basis.

Specialists will have a much lower infection rate. It's important for patients to seek out the most experienced doctor. Think of a penile implant as one would a root canal procedure. You want to see a root canal specialist, rather than a general dentist for it.

Seeing a specialist is very important, because it minimizes the risk of infection, maximizes the size of the penis, and optimizes the placement of the pump and concealment of tubing and incision. Specialists also make smaller incisions, which reduce areas of skin numbness, preserving sensation and ability to achieve orgasm.

Do you advise patients to specifically ask about infection rates when evaluating doctors?

Dr. Eid: Yes, but very few places actually track their infection rates and it's often difficult to obtain this data.

How should patients evaluate a specialist?

Dr. Eid: There are clues to look for. If you walk into a doctor's office and you don't see any information on

penile implants, then you can guess that not a lot of implants are being performed by that practice.

If the doctor sees female patients as well as male and performs mostly general urological procedures, then this automatically indicates that the physician hasn't done a lot of penile implants. (There just isn't enough time in the day to do all these things.)

If the doctor has assistants do some of the ED evaluation and some of the medical treatment of erectile dysfunction—a physician assistant does the penile injections—then you know that the doctor is not really involved and interested in treating erectile dysfunction. He will not have the opportunity to discuss penile implants with many patients.

If you ask about penile implants and the doctor doesn't volunteer a list of patients who already have had a penile implant placed by his practice that you can talk to, this also would indicate that not a lot of implants are being performed there.

If the doctor doesn't have models of all the different types of implants that you can look at and manipulate, and if you ask for information on penile implants and all you get is a pamphlet from the company itself and nothing written by that physician, then this also indicates that the procedure is not frequently performed in that practice.

If you schedule the procedure and find that the staff doesn't really know about insurance reimbursement, that's also a clue that they're not frequently scheduling the implant procedure.

If you ask the doctor, "Do you like to have a representative from the company there during the procedure?" and he says yes, then, you know that he is not going to have a choice of which implant to use. (If a representative from one company is there, the doctor is less likely to use an implant from another company, even if the other company's implant fits you better.)

If you ask directly about infection rates, he may say, "My infection rate is very low." But looking for clues is a much cleverer way of finding information about how many implants a doctor actually does.

"Seek the most experienced physician you can find in order to maximize chances of success."

How much does an implant cost? Is it usually covered by insurance?

Dr. Eid: These devices have been around since 1973 and the procedure is reimbursed by most commercial insurances including Medicare.

More recently insurance plans have increased their deductibles and some will play games. They claim to cover the procedure, but won't pay for the implant device. This is a newer occurrence and is absurd.

If a patient is paying cash, the device itself costs from $8,000 to $10,000. When you add the cost of the operating room, anesthesia, and the surgeon's fee, it can add up to about $25,000, depending on the facility used.

It is recommended to have this procedure performed in a clean

outpatient ambulatory surgery center and to avoid a hospital stay. Ambulatory facilities charge less than hospitals. (The operating room and anesthesia fees are much cheaper.)

"Patient and partner satisfaction with penile implants is greater than 90%."

I suppose if the device lasts 20 years, $25,000 isn't a bad deal.

Dr. Eid: No, it's not. There are a lot of other medical procedures that are much more expensive.

Is there anything else men should know about the penile implant or other options available to treat erectile dysfunction after prostate cancer?

Dr. Eid: One feels completely normal with a penile implant. Everything is preserved; nothing is removed from the patient to put in the penile implant. Also for many, the implant restores a fuller penile anatomy. The penis doesn't retract when the implant is not in use, so the flaccid penis appears larger.

After prostatectomy, some patients will have difficulty with urination if the patient is overweight and the penis retracts. A penile implant will also help in this situation.

Patient and partner satisfaction with penile implants is greater than 90%, but as with any medical procedure, seek the most experienced physician you can find in order to maximize chances of success. Pp1