Impotence Is Not Inevitable After Prostate Cancer Treatment

Men who have undergone radical prostatectomies for prostate cancer don’t necessarily have to give up their sex lives.

With the type of nerve-sparing surgery now commonly practiced around the country, many men regain their potency, especially if nerves on both sides of the prostate can be spared and if the man is relatively young, according to D. Karl Montague, M.D., program director of urology and head of prosthetic surgery at the Cleveland Clinic Foundation.

Montague chaired a panel of experts for the American Urological Association, which recently reported new guidelines for the treatment of impotence, or, as urologists prefer to call the problem, “erectile dysfunction.” The guidelines were presented at the World Meeting on Impotence, held in San Francisco late last year.

The number of patients who can recover sexual function after nerve-sparing surgery varies by age, the extent of the cancer, and the surgical technique, Montague said. Nerve-sparing surgery pioneer Patrick C. Walsh, M.D., professor of urology at the Johns Hopkins University Medical School, agreed.

He said that age is a very important factor, and that 90% of his patients in their 40s will remain potent after nerve-sparing radical prostatectomy, as will 75% of those in their 50s, 60% of men in their 60s, and 25% of men in their 70s.

Recovery of sexual function may not be immediate, however. It generally takes a year, and Walsh said some patients take up to 4 years before being able to resume unabated sexual activity. In the meantime, however, a number of other techniques are available that will restore erectile function.

Age is not necessarily a deterrent for motivated men willing to try other means to restore potency, including a penile prosthesis. “I did an implant in a man who was 89, and he loved it,” said Ira Sharplin, M.D., a urologist in private practice in San Francisco and a member of the AUA panel of experts.

“If a man is interested in preserving his potency, and being able to achieve erections after prostate cancer surgery, there are several choices,” said Montague.

Under the new AUA guidelines, which are based on a survey of the literature, the options are:

- Injection into the erection chambers of the penis, the corpora cavernosa, of a vasoactive drug, usually Prostaglandin E1 (alprostadil) or a combination of drugs, such as papaverine and...
phenolamine. Alprostadil can also be delivered transurethrally, with the Medicated Urethral System for Erection or MUSE.

- Use of a vacuum constriction device, which consists of a plastic cylinder that is placed over the penis, a vacuum pump that sucks air out of the tube to cause an erection, and a constricting band that is placed around the end of the penis to keep the erection in place.

- The use of a penile prosthesis: either semi-rigid rods that are surgically implanted inside the erection chambers, or one of three types of inflatable prostheses that enable a man to create an erection by inflating the tubes inside the penis.

There are pros and cons for each method, Montague added. Men who use erection-producing drugs must inject a needle into the penis, which causes pain in up to 20% of patients.

Some men find the vacuum device cumbersome as well as painful. Finally, with implants there is the risk of erosion of the device through the skin and of infection, which would then require another surgical procedure to remove the prosthesis.

Some Men Opt Out

Not every man is interested in going through all this, and urologists said the dropout rate with these methods is high.

Patrick J. Walsh, M.D., a Duke University resident (no relation to Patrick C. Walsh of Johns Hopkins) reported on a study of 165 men aged 46 to 80 (average age 63 years) who presented after prostatectomy with complaints of erectile dysfunction.

After an average of 12 months, 29% of the 118 men remaining in the study were using injections, 8% were using vacuum constriction devices, 2% were using a combination of injections and vacuum devices, and 2% were using prosthetic implants.

However, 60% were not using any of these methods. Walsh concluded that "less aversive therapies" are needed than those currently available.

A new method just approved by the U.S. Food and Drug Administration involves transurethral placement of a small prostaglandin-containing pellet, which works the same way as injections into the penis.

Oral drugs for impotence are now under study. But whether these will work for prostate cancer patients remains to be seen.

"I don't think it's likely that the pills on the horizon are going to be useful post-prostatectomy," Montague said, "although I think a clinical trial in these patients would be appropriate. The promising results so far have been in men with more erectile potential than men have after radical prostatectomy."

Skepticism

There is also considerable skepticism about what might be the simplest method of all — topical therapy.

Johnny Roy, M.D., of the University of Oklahoma Health Sciences Center, Oklahoma City, told of a randomized, placebo-controlled study of aqueous nitroglycerin cream applied to the penis for erectile dysfunction. He reported

Researchers Collaborate on Prostate Cancer Gene Search

In an effort to coordinate and cooperate in their search for the elusive gene or genes that affect prostate cancer, an international group of scientists met at the National Cancer Institute in December to pave the way for collaboration.

"The identification of HPC1 on the long arm of chromosome 1 was an important step toward finding the gene responsible for an estimated 3% of prostate cancer cases," said Daniela Seminara, Ph.D., program director of NCI's Extramural Epidemiology and Genetics Program and co-chair of the workshop with Alice Whittemore, Ph.D., of Stanford University in California. But the heterogeneity of the disease makes genetic discoveries a difficult process, Seminara said.

Prostate cancer is usually diagnosed late in life, making the appearance of families affected in multiple generations at the same time a rare event. Such families were common in the search and discovery of familial breast cancer genes. In order for the prostate cancer researchers to find other prostate cancer genes, as well as refine their knowledge about HPC1, collaborations are paramount.

"Studies done at multiple institutions will help us see interactions among prostate cancer susceptibility genes as they are identified as well as to see gene-environment interactions," Seminara said. "Collaborations also help the families afflicted by the disease by ensuring access to the most up-to-date information and avoiding unnecessary duplicative studies."

The participants have formed an International Consortium on Prostate Cancer Genetics, and will meet again in June.

— Kara Smigel