Restoring Quality of Life: Managing Side Effects

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I. Current Therapies for Prostate Cancer

The current therapies for early-stage prostate cancer include open radical prostatectomy, a DaVinci robotic prostatectomy, external beam radiation, brachytherapy and active surveillance. Locally advanced disease can be treated with external beam radiation and hormone therapy, and treatment for advanced disease includes hormone therapy and chemotherapy.

II. Side Effects

1. Acute

Prostatectomy is a surgical procedure so there can be acute side effects of blood loss or injury, but these are relatively rare. Chronic side effects, however, are potentially more of a problem and include urinary incontinence, impotence and urethral stricture. Some of the acute side effects of external beam radiation may include rectal irritation, bladder irritation and fatigue during the actual administration of treatment. The side effects of brachytherapy are quite similar though perhaps a little bit less.

2. Chronic

It is the chronic or long-term side effects that can be more problematic. For the bladder, urgency and frequency due to decreased bladder compliance occurs in as many as 5 to 10% of men. Urinary retention and urethral stricture can occur as well, and radiation cystitis, sometimes two to three plus years later. Rectal problems can include a change in bowel function and radiation proctitis. Finally, the occurrence of impotence is similar to that of surgery. It is worse if one has to also receive hormone therapy, but perhaps it is a little better with brachytherapy.

III. Management of Urinary Incontinence/Radiation Injury

The management of urinary incontinence is typically handled with medications. Occasionally it requires the endoscopic injection of a bulking agent into the sphincter. There are urologists who specialize in artificial urethral sphincter placement. In terms of radiation injury to the bladder, one of the biggest issues is bladder bleeding, which can be managed through a cystoscope with cautery or laser treatment to the abnormal blood vessels. Urinary retention is managed like any other retention with either a catheter or self-catheterization.

IV. Management of Erectile Dysfunction

There are many alternatives that are available for treating erectile dysfunction. These include oral medications, vacuum erection devices, and urethral suppositories. Direct penile injections can also be done, which is very effective, and there is no requirement for sexual stimulation. It does require a needle. There is pain involved, and there is a risk of priapism where the erection can last too long and result in damage. Finally, there is the option of a penile prosthesis/implant, which is done as a surgical procedure in the outpatient setting. It replaces erectile tissue with inflatable cylinders. It's easy to use and dependable. It is non-reversible, and one has to be motivated to go through the procedure.

V. Penile Rehabilitation

Penile rehabilitation is the concept of preventing or decreasing damage to erectile tissue, which begins immediately after surgery and radiation; I have heard it may even be done prior to that in some places. It involves the use of daily or weekly oral agents or injections, and there are small studies showing that this may actually have some real benefit. The hindrances are needle fear, use of injections and cost.

VI. Side Effects of Androgen Deprivation Therapy

The hormonal treatments for prostate cancer reduce testosterone, and there's a long list of side effects including hot flashes, libido loss, reduced stamina and muscle strength, weight gain, breast enlargement, fatigue, anemia, osteoporosis, increase in cardiovascular events and decrease in cognitive function. Hot flashes can be managed with drugs such as Effexor or Megace. Stamina and strength can be increased through proper exercise, and weight gain can also be addressed through proper diet and exercise. Breast enlargement can be prevented with a little bit of radiation to the breast or with the use of SERMS, which are estrogen modulators. In terms of osteoporosis, most men will have some decrease in bone density similar to that of a post-menopausal woman, but there are treatments including weight-bearing exercise and calcium and vitamin D supplements. On top of that, Fosamax can be used as well as Denosumab, which is not yet FDA approved, and Zometa.

VII. Get Ahead Program

The Get Ahead Program at Northshore is an intensive 12-week intervention program with two arms, passive resistance training and a dietary program. It is basically a pilot program looking at the feasibility of much more aggressive intervention with exercise and diet.

VIII. Management of Chemotherapy Side Effects

Chemotherapy is unfortunately necessary in some men, and it can result in excellent control and help men live longer. There are many side effects, which are legendary, and they include myelosuppression, infection, neuropathy, stomatitis, fatigue, tearing and alopecia.

IX. Restoring Quality of Life

Patients must communicate these problems to their physicians, and they should not minimize their symptoms. They can then discuss how problems can be prevented. A discussion should take place about whether active surveillance is an option instead of surgery or radiation. Another question is if a patient needs hormone therapy whether it can be given intermittently. Patients have to be educated and should ask questions.

X. Questions

Participant

Does ADT affect the heart muscle and the bladder?

Dr. Shevrin

ADT can have an affect on any skeletal muscle so in theory it could affect the musculature related to the sphincter, but probably not as much as the larger musculature in terms of walking and exercising. The heart is not a skeletal muscle, but there is growing data that low testosterone levels may result in cardiovascular events and even increase the risk of cardiovascular death. There is conflicting data, and there are no guidelines. We have to, however, factor those concerns into the equation when deciding on the appropriate therapy.