What's New in Prostate Cancer: 5 Takeaways

'Many reasons for optimism' says expert at annual community symposium

June 1, 2018 By Susan Keown

In 2018, doctors know more than ever before about prostate cancer, with more effective treatments coming on line, knowledge about risk factors growing, and other improvements happening fast. Prostate cancer is becoming less common and less deadly.

In short, said Fred Hutchinson Cancer Research Center expert Pete Nelson, MD, "There are many reasons for optimism."

In front of a full auditorium at Fred Hutch, Nelson kicked off the seventh annual community symposium of the Institute for Prostate Cancer Research. IPCR is a joint effort of Fred Hutch and its consortium partners, UW Medicine and Seattle Cancer Care Alliance.

At the daylong event, IPCR experts gave their insights about the current state of the science and recent discoveries in prostate cancer risk reduction, screening, imaging, treatment and more. Here are five things that men should know about this cancer:

1. Prostate cancer is different in black men compared with white men

"Prostate cancer isn't colorblind," said Ruth Etzioni, PhD, a Fred Hutch biostatistician who studies racial disparities and screening in this and other cancers. "Not by any stretch of the imagination is this a one-size-fits-all situation."

In her talk at the symposium, Etzioni highlighted the racial disparities in this cancer. While it is becoming less common and less deadly across the board, black men are still more likely to get it and to die from it than white men, and "this is one of the most dramatic disparities in cancer," she said.

Etzioni and colleagues' recent work suggests that black men might benefit from screening for this cancer 10 years earlier than the current national screening guideline recommends (age 55). Such screening involves testing a man's blood for levels of a marker called PSA, which can indicate the presence of cancer. However, screening comes with risks — most notably, the risk of treating a cancer that may be too slow-growing to cause the man harm. So risks and benefits of screening

must be carefully balanced, Etzioni emphasized.

She and colleagues have recently kicked off a task force dedicated to overcoming the racial disparity in prostate cancer by gathering detailed data on this disease in black men. She hopes that the evidence they gather will inform better, tailored screening recommendations for black men, catching more cancers earlier, saving lives and reducing the lingering racial disparity.

“Our work will provide concrete guidance to policy panels about what to do,” Etzioni said.

2. Side effects of prostate cancer treatment can be countered with exercise

A standard treatment for advanced prostate cancer is androgen-deprivation therapy, or ADT. Such drugs include Lupron (leuprolide) and others that work through a similar mechanism, and Firmagon (degarelix), which works a different way. ADT blocks the testicles’ production of androgens, “male” hormones such as testosterone that are like fuel for prostate cancers. Taking away the cancers’ fuel causes them to stop growing or shrink, at least for a while.

In the last year, a growing body of evidence has made it clear that moderate exercise of any type is an excellent antidote to many unwanted side effects of ADT, such as loss of muscle, fatigue and weight gain, said Jonathan Wright, MD, a urologic oncologist at UW Medicine and Fred Hutch. He rattled off the results of several studies published in the last year:

Exercise improves men’s feelings of masculinity, body image, and quality of life while they receive ADT or other prostate cancer treatment; it improves muscle performance and the body’s fat-to-lean ratio after ADT is finished; and it benefits cardiovascular health and metabolism during ADT. It improves physical function and strength in men whose prostate cancer has metastasized to the bones, without causing bone pain or other bad side effects. It also counters loss of muscle mass, a normal byproduct of aging that can lead to falls and fractures and which is accelerated by ADT.

So if moderate exercise can help, an audience member asked Wright, does especially vigorous exercise help even more? “Be safe,” Wright cautioned. If you overdo it and get injured, that will be counterproductive, he said.

3. Erectile dysfunction after prostate cancer therapy: Many good solutions are available

Problems with sexual function are common after treatment for prostate cancer, said urologist Niels Johnsen, MD, of UW Medicine. Both surgery and radiation alike can have harmful effects on the nerves, blood vessels and tissues in the penis necessary for erections, Johnsen said.

However, he said, “it’s important to know that there’s lots of options” that can help men and couples fulfill their needs for sexual intimacy.

First, he said, it’s important for doctors to know what problem the man is experiencing and what his and his partner’s goals are. Different solutions will work for different patients, he explained.

The next step is for the man to work on improving any relevant health factors under his control that might affect his ability to maintain an erection, Johnsen said, such as blood pressure, diet and exercise. If the man's goals aren't reached after these factors improve, doctors may discuss oral medications such as Viagra (sildenafil citrate) and Cialis (tadalafil).

The next tier of options is local therapies. These include hand-operated vacuum pumps and medications that increase penile blood flow, which the patient can insert into the opening of his penis or inject through the wall of his penis before having sex. (The injection option evoked some skeptical murmuring in the audience, and Johnsen reassured his listeners that men who try it receive a lot of coaching from the medical team on how to do the shots and are often very satisfied with the treatment.)

The final and most invasive option is a penile prosthesis, Johnsen explained. A surgeon implants an inflatable device in the tissues of the penis and hides the attached pump inside the scrotum. The man can squeeze the hidden pump to cause an erection.

4. Newly diagnosed metastatic prostate cancer: better treatments on the horizon?

When men are newly diagnosed with metastatic prostate cancer, they often still have very little cancer outside of the prostate (a condition called "oligometastatic disease"), said IPCR Director Daniel Lin, MD of UW Medicine and Fred Hutch. Emerging research is pointing toward potential new treatment strategies to help men with oligometastatic prostate cancer have better health for more time, Lin said.

Experts currently think that surgery and radiation are not likely to cure metastatic prostate cancer, Lin said. But studies in mice have been building evidence that controlling the growth of the primary tumor (that is, the original tumor in the prostate) might help these men.

Why? Research points to several potential reasons for this, Lin said. For example, eliminating or greatly reducing the size of the primary tumor may disrupt a process called "self-seeding," through which travelling metastatic tumor cells travel back to the primary tumor through the bloodstream, releasing signals that make the cancer even more aggressive.

IPCR researchers in Seattle are just about to open a randomized clinical trial to test the benefits of adding local surgery or radiation to standard of care for men newly diagnosed with metastatic prostate cancer. Could local therapy to the primary tumor improve outcomes, including quality of life, for these men, or certain subsets of them? The trial will have more than 50 sites nationwide and will be run through the national clinical trials network known as SWOG, Lin said.

Numerous other ongoing clinical trials in the U.S. and Europe are testing treatment strategies specifically designed for men with newly diagnosed metastatic prostate cancer, Lin said, including large trials called STAMPEDE and PEACE1. (Click on the links to learn more; other clinical trials for prostate cancer can be found by searching on clinicaltrials.gov.)

5. Could high-dose testosterone treat prostate cancer?

Could prostate cancer be treated with high-dose testosterone? This is still an open question, said Michael Schweizer, MD of UW Medicine and Fred Hutch, but it is an area of active research, and results so far have been intriguing.

A big problem with ADT is that it doesn't work forever: Prostate tumors always eventually figure out how to get around the lack of testosterone and find a way to grow anyway. But research by Schweizer has shown that once a tumor becomes adapted to growing with little testosterone, high levels of the hormone can poison it.

The result of this idea is a strategy called "bipolar androgen therapy." In this "counterintuitive" approach, Schweizer explained, a patient alternates between ADT and high-dose testosterone therapy. "The idea is that you're staying one step ahead of the resistance, so the cancer doesn't have the chance to get used to either a high- or low-testosterone environment," he said.

Schweizer's recent small, proof-of-concept clinical trial of a type of bipolar androgen therapy in men with asymptomatic, ADT-resistant metastatic prostate cancers showed that it has promise in treating this cancer and in improving quality of life — a "pretty exciting finding," he said. Soon, his team will launch a clinical trial of an updated version of this protocol.

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