New Strategies

By Garth Sundem, University of Colorado Cancer Center

New Strategies for Prostate Cancer Care Demanded by Longer Life Expectancy, Aging Population

As boomers pass age 65 – the most common time of prostate cancer diagnosis – researchers have a handful of new barriers to put in the path of the disease.

The population of the United States and Canada is getting older, due not only to aging boomers but also to a four-year increase in life expectancy from 1980 to 2010. An aging population means increased diagnosis of prostate cancer. Statistically, the older the patient at time of diagnosis, the more aggressive the disease – and also the less well the patient is likely to tolerate traditional chemotherapies. In sum, we have more, aggressive prostate cancer that can’t be targeted by traditional treatments.

Members of the University of Colorado Cancer Center recently published a review in the journal Drugs and Aging describing the modern state of prostate cancer care – examining not only new drugs but entirely new classes of drugs that may be effective and well-tolerated in these aging patients.

“For patients with advanced prostate cancer, there are more options than ever before. But with more options comes a more complex decision tree in choosing appropriate therapies,” says Elizabeth Kessler, MD, oncology fellow at the University of Colorado Cancer Center and the review’s lead author.

First among these options are targeted therapies. Modern targeted therapies are able to selectively kill cancer cells as opposed to accepting high collateral damage in healthy tissue and so frequently have fewer side effects than traditional chemotherapies. (And, are thus better tolerated by elderly patients.)

“These are drugs like abiraterone and enzalutamide that have been approved for use in late stage prostate cancer and are now being evaluated for earlier use,” Kessler says. Prostate cancer generally depends on androgen hormones like testosterone to survive and grow – even after traditional hormone blockade, the body continues to produce minute amounts of testosterone and even this little bit is enough to drive prostate cancer.

By completely removing the body’s ability to produce testosterone or the cancer’s ability to use it, these drugs break the messaging chain that tells prostate cancer to grow. CU Cancer Center researchers have played an
important role in the clinical development of both of these drugs.

Researchers are also looking for additional, molecular drivers of prostate cancer, perhaps for example insulin growth factor.

“We’re also exploring the use of targeted kinase inhibitors,” Kessler says. For example, the drug known as XL184 by Exelixis is currently in clinical trials to target MET and VEGF, “and appears to show effect against bone lesions, the most common location of prostate cancer metastasis,” Kessler says.

“Another promising strategy to treat metastatic prostate cancer is immunotherapy,” Kessler says. In immunotherapy, drugs, devices or treatments are used to sensitize the body’s immune system to attack cancer cells – boosting the body’s ability to clear itself of cancer.

For example, the drug Sipuleucel-T was approved by the FDA in 2010 for treatment of metastatic prostate cancer – “but it requires blood to be removed, treated, and reinfused,” Kessler says – a procedure that can only be accomplished by shipping the patient’s blood to facilities in other cities before reinfusing it here. Second generation prostate cancer immunotherapies including Prostvac are in development or clinical trials, including an open trial at the CU Cancer Center.

Finally, researchers are exploring ultra-precise targeting of radiation that rides along with drugs that attach to bone metastases and affects only the tumor cells in the immediate areas of attachment. “One of these drugs is Alpharadin,” Kessler says, “which goes only shallowly into bone and so targets lesions without stopping the production of bone marrow.”

“There has been a major shift in the acceptance of these drugs,” Kessler says. “We’re learning to reach for them sooner and more frequently in place of traditional chemotherapies.”

This shift means that just as boomers pass age 65 – the most common time of prostate cancer diagnosis – researchers have a handful of new barriers to put in the path of the disease.

Researchers Find Possibility of Heart Disease Causing Prostate Cancer

Duke researchers find evidence linking prostate cancer and coronary artery disease

Feb. 8, 2012 – Is heart disease the cause of prostate cancer? New research from the Duke Cancer Institute has found a "significant correlation" between coronary artery disease and prostate cancer, suggesting they may have shared causes.

If confirmed that heart disease is a risk factor for prostate cancer, the malignancy might be combated in part by lifestyle changes such as weight loss, exercise and a healthy diet, which are known to prevent heart disease.

"What's good for the heart may be good for the prostate," said Jean-Alfred Thomas II, MD, a post-doctoral fellow in the Division of Urology at Duke and lead author of the study, which appears online this month in the journal Cancer Epidemiology, Biomarkers & Prevention.

Coronary artery disease - narrowing of the small blood vessels that supply blood and oxygen to the heart - kills more adults in the United States than any other cause, accounting for one in four deaths. Risk factors include inactivity, obesity, high blood pressure and cholesterol, cigarette smoking, and diabetes.

Similarly, prostate cancer is a common killer. It's the second-most lethal cancer for U.S. men, behind lung cancer, with about 240,000 new cases diagnosed a year, and 34,000 deaths.

Previous studies exploring the relationship between coronary artery disease and prostate cancer risk have found conflicting results, making it difficult to determine whether the malignancy is fueled by poor lifestyle choices.

In the current study, the Duke team used data from 6,390 men enrolled in a large study called REDUCE, a four-year, randomized trial to test the prostate cancer risk reduction benefits of a drug called dutasteride.

All the study participants had a prostate biopsy at the two- and four-year marks, regardless of their PSA levels. They also provided a detailed medical history that included their weight, incidence of heart disease, alcohol intake, medication use, and other factors.

Among the men in the study, 547 reported a pre-enrollment history of coronary artery disease. This group of men tended to be older, heavier and less healthy, with higher baseline PSA levels, plus more diabetes, hypertension, and high cholesterol. The men were also much more likely to develop prostate cancer, even after accounting for all the baseline differences.

Having coronary artery disease increased the men’s risk of prostate cancer by 35 percent, with the risk rising over time. The group was 24 percent more likely to be diagnosed with prostate cancer within the first two years of the study than men who reported no heart disease, and by four years into the study, this group’s prostate cancer risk was 74 percent higher.

"We controlled for a number of risk factors, including hypertension, taking statins, or aspirin," Thomas said. "We don't have a good grasp on what's causing the link, but we are observing this association."

Stephen Freedland, MD, associate professor of surgery and pathology in the Division of Urology at Duke and senior author of the paper, said the study had some shortcomings. Notably, it relied on data from a previous trial that didn't account for factors such as diet, physical activity and severity of heart disease that may have influenced the results.
But Freedland said the study eliminated a screening bias common in previous findings that correlated prostate cancer and heart disease using men with high PSA levels. “This is giving us a lot of good ideas for what to look at next,” Freedland said, noting that the overlap between prostate cancer and other diseases associated with poor health habits is a focus of his research group.

Seven Charts, Seven Lives

By Craig R. Hildreth, MD

*Dr. Hildreth is a medical oncologist in private practice.*

As I walked into my office last Monday I found my nurses giving me a peculiar look, one that I usually reserve for incidents like watching someone back into another’s car. The explanation for their solicitude was soon revealed by a stack of charts lying on my desk. During my weekend off, seven of our patients died.

Through the years of practicing the art and science of cancer care I have developed affection for patient charts, these so-called cardboard biographies. Some lucky charts are as thick as dictionaries, others slight, but they all hold the same thoughtfull story that begins with “Once upon a time” and ends in my waiting room. After meeting patients it is up to me to pick up their story and continue it in the chart, now chronicled from the singular perspective of living with cancer. My notes may describe both days of suffering and of triumph, but too often end abruptly like this—the loss of seven wonderful people, taken for no justifiable purpose, seven lives ended by a disease that like a fire has no ability to control its lust for devastation.

Holding a chart in our hands brings our patients closer to us. It is a physical reminder that someone is out beyond our view, depending upon us to do the right thing. Charts follow doctors around, nagging them to make their owners better.

I picked up the first chart and it seemed to be weighted with sorrow. Page by page I recalled the details of our time together as I thought about what I was going to say in a letter of condolence. Cruelly stamped “EXPIRED,” these charts to me now become the symbol of cruelty itself. They will now be placed to rest nearby in the mausoleum found in every doctor’s office known as the storage room. They pile up by the hundreds like stacks of corpses.

Years later however there may come a time when, for one reason or another, a faded box is opened and once again I see the familiar name before me. What memories will return, and what a compelling reminder of the dignity of the cancer patient is the chart. Charts of course also are a memento mori, a warning of how all human journeys, even those of oncologists, end the same.

Next year our practice transitions away from paper charts. Next year when my patients die there will be no tangible memorial of their courage or their glory. Their essence will disappear into the incinerator known as the electronic medical record, another example of the slow but steady dehumanization of medicine.

Getting to Kerby Centre

With the opening of the West LRT our meetings are easier than ever to attend! The West LRT stops right at the door at Kerby Station. Now you can leave your car at home and arrive quickly and safely to our front door!

If you choose to drive however, there are two free lots at Kerby. The East Lot is accessible from the lane between 7th Ave and 8th Ave. Be aware that the majority of these spaces in the East lot are reserved for handicapped. Come early to get a spot in the East lot.

The larger, North Lot is right across 7th Ave. It can be accessed from 11th Street. It is a gravel lot but the parking is free and it’s just a short walk across 7th Ave to Kerby.

However you choose to attend our meetings we encourage you to attend. The Lecture Room at Kerby seats up to 90 members with clear sight lines to the main screen.

Hope to see you at our next meeting!
Meet Rob Pentney, Secretary of PCCNCalgary

Hi, my name is Rob Pentney and I’m honoured and proud to have been a member of PCCN Calgary’s board of directors for over two years.

I joined this terrific team in 2010, and became its Secretary shortly afterwards. Nick Drinkwater, a former board member, introduced me to the group. I’m very thankful to him, and to the board, for the opportunity to serve our members.

Though I don’t have prostate cancer, it has affected my life deeply. In 1999 my father was diagnosed with it. After a painful and sometimes heart-breaking battle, he died in 2007. My brothers, sisters and I learned a lot from this. We saw the impact of a late diagnosis had on him, and supported him through hormone, radiation and chemo therapies. In the past year, my brother-in-law and a very good friend were diagnosed with prostate cancer and they are now members of PCCN Calgary. Serving on this board has given me an opportunity to give back to our community, and to help them and others.

On a personal note, 25 years ago I married my wonderful and beautiful wife Eleanor. We have two children who are now amazing young adults in their early 20’s - Alex and Annie.