Health & Science

Targeting Prostate Cancer Screening

Every year, most middle-aged American men get a test that can help detect prostate cancer, the prostate specific antigen (PSA) test. However, about 70% of men can safely be tested every two years instead of annually — saving roughly $225 million in health care costs every year, according to Dr. H. Ballentine Carter, an associate professor of urology at the Johns Hopkins University School of Medicine in Baltimore, Maryland.

"There is really no rationale to suggest that yearly testing is more effective than any other interval," he said at an American Medical Association-sponsored media briefing in New York on Tuesday. "For the majority of men between the age of 50 and 70, annual testing is not necessary, and a testing interval of two years, rather than annually, will maintain detection of curable cancers."

To help catch and treat prostate cancer early, the American Cancer Society currently recommends that all men over 40 have a digital rectal exam annually and a PSA test every year after age 50.

When blood levels of PSA increase above 2 nanograms of protein per milliliter of blood (ng/ml), it can be a sign of either a benign enlarged prostate, or prostate cancer. And the test has been controversial because it can pick up extremely small, slow growing cancers that may never need treatment, as well as fast growing tumors that can be deadly.

Currently, it can be difficult to determine the aggressiveness of cancer, and some prostate cancer treatments carry a risk of serious side effects, including incontinence and impotence.

In the new study, Carter and colleagues looked at blood samples from 40 men who eventually developed prostate cancer and 272 men who did not develop the cancer. They found that if the PSA test was less than 4 ng/ml, and a cancer was present, the majority of tumors were very small — about the size of a pencil eraser — a size "that most experts believe are potentially unimportant," said Carter. However, if the PSA test was 4 to 5 ng/ml, the tumors that were detected were curable, but fewer of them were of the smaller type that probably don't need treatment.

Only one out of three men who have a PSA over 4 ng/ml — but no other symptoms or risk factors — actually have cancer when their prostate is biopsied.

The finding suggests "that a PSA level of 4 to 5 (ng/ml) is an acceptable range for maintaining the detection of curable tumors, at the same time minimizing the detection of very small tumors," he said.

A tumor was considered incurable if the men did not have a drop in PSA after treatment.

The researchers also found that if a man's PSA test was 2 ng/ml or less, only 1% of those with cancer reached 4 to 5 ng/ml when tested two years later.

"For men who have an initial PSA level of 2 or less, annual testing would appear to be unnecessary," Carter said.

About 70% of men between the ages of 50 and 70 would have a PSA test that is less than 2 ng/ml, he noted.

"If you made the assumption that every man between the age 50 and 70 has a PSA test on an annual basis, and you make the assumption that the test costs $25 to $30, if you only use the cost of PSA test and no other cost, eliminating annual testing for 70% of those men would save $450 million every two years," said Carter.

However, he noted that not all men would get tested, and there are costs in addition to the test itself — such as the visit to the doctor to get the test.

"I would use that estimate as a very, very rough one at best," he said.

The study findings do not apply to men over 70 or African Americans, who were not included in the study.

Black men are at greater risk of prostate cancer than whites, and they may need to begin testing for the cancer at a younger age — though studies have not shown that this is helpful, said Carter.

New Hope for Ovarian Cancer

Although ovarian cancer accounts for only 4% of all cancer cases in women, it is one of the most feared diagnoses. Because the symptoms are vague, including stomach discomfort, gas or a distended abdomen, more than 75% of these cancers have spread to other parts of the body by the time they are detected — and less than half of women diagnosed with ovarian cancer survive for five years or more.

However, an experimental treatment may offer hope to women with ovarian cancer. The new treatment, called "dose intensive three-drug therapy," combines high doses of three drugs currently used to treat ovarian cancer.

The therapy increased survival in women with a poor prognosis, reported Dr. Eddie Reed, at an American Medical Association-sponsored media briefing in New York on Tuesday.

"We think this new therapy is very hopeful and we are particularly excited about it," said Reed, chief of the Medical Ovarian Cancer Section at the National Cancer Institute in Bethesda, Maryland.

In a new study of 60 patients with advanced ovarian cancer — patients with disease that could not be mostly removed by surgery — 70% of patients were disease-free almost two years after the new treatment.

In general, only 50% of patients are disease free 18 to 19 months after treatment — and that's with a good initial prognosis.

The women were given a series of three ovarian cancer drugs — cyclophosphamide, paclitaxel and cisplatin — followed by an injection of granulocyte-colony stimulating factor (GCSF), a protein that helps to protect bone marrow. The treatment was given once daily for nine days.

Currently, the experimental treatment is more expensive than standard therapy, about 50% to 100% higher than the normal cost of chemotherapy. And it's only available at the National Cancer Institute or at Harvard University in Boston, according to Reed.

The therapy is so expensive because patients need to take other drugs to prevent side effects, such as problems with kidney or bone marrow function.

However, only three patients dropped out of the study because of such side effects, Reed noted. And Reed said that there is one important thing that women newly diagnosed with ovarian cancer can do to help increase their chances of disease-free survival: have their surgery performed by either a gynecologic oncologist or a surgical oncologist.

"When the surgery is done by a specialist, the ovarian cancer patient is more likely to have all of the visible tumor removed during the course of the surgery. There are very specific things that need to be done during the course of surgery," explained Reed. "These specialists are trained to know what to look for and what to do."

Coping with stress using Progressive Relaxation

Progressive relaxation is a wonderful way to reduce stress and achieve deep-seated rest. The beauty of this technique is that it does not cost you a cent.

Let's begin.

Sit in a comfortable chair. Or, if you prefer, lie down and follow this procedure:

Tighten the muscles in your legs by stretching them out as far as you can by lifting them up into the air or by pressing them into the floor very hard. Stiffen them. Your objective is to tense and tighten every muscle in your legs from the bottom of your feet to your waist. Hold this tightness for five seconds. Then, suddenly and quickly release the tightness in your legs. Make them as limp as you can. Drop them heavily as if they weigh a ton. You will feel a deep surge of relaxation flow through your legs as stress drains out of them.

Pain management: the basics

Pain is not only the most common symptom that we as humans experience, but the one that is most alarming to patients. Controlling pain has become a true science, and literally every year we improve the way we can control pain.

Rheumatologic diseases afford us a variety of opportunities to understand when we should use which drugs to treat joint, bone, tendon, and muscle pain as well as non-specific pain.

Pain medications (analgesics) can be placed into a number of broad categories depending upon how and where they work. The most commonly used analgesic agents are the anti-inflammatory types. These are (1) Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) — commonly represented by aspirin, ibuprofen and naprosyn, and (2) Steroidal Anti-Inflammatory Drugs — the most common are cortisone, prednisone, medral, and other cortisone derivatives.

These agents work just as their name implies — by blocking inflammation. Whenever you injure a body part, whether it be by banging or twisting it, or have an infection, an antibody-antigen reaction, or have a build-up of muscular tension, there is an acute inflammatory response. The inflammation causes redness, heat, swelling, tenderness, and pain. The result on the body is acute injury yet, frequently, there is chronic residual damage.

The pain that accompanies an acute injury is due to the processes associated with the inflammation. Therefore blocking the inflammation also blocks the pain. This is a double bonus since immediate pain relief is important to the patient and in the long run, there is less permanent damage. This is especially important for people with arthritic conditions such as rheumatoid arthritis or gout.

In some arthritic conditions such as degenerative joint disease (DJD), the anti-inflammatory response is less important since there is only low grade inflammation; typically, non-specific analgesics provide adequate relief. Fortunately, many of the NSAIDs also have non-specific analgesic effects in addition to their anti-inflammatory effects (see PAIN MANAGEMENT magnets)

The side effects of NSAIDs include:

1. Gastrointestinal (GI) effects — gastritis and ulcer
2. Anticoagulant effects — thinning of the blood and prevention of blood clot formation (these can be beneficial). The major difference between aspirin and other NSAIDs is that aspirin blocks clotting in an irreversible way whereas the effect of NSAIDs lasts only as long as the drug is present in the bloodstream.
3. Hepatic (liver) effects — inflammation and/or necrosis can occur in approximately 15% of patients. This usually reverses when the drug is withdrawn.
4. Renal (kidney) effects — salt and water retention leading to edema, elevated blood pressure, interference with some blood pressure medications, and to kidney damage.