NORTH MEDICAL, P.C.

Your Health and Wellness: Prostate Cancer

This month's focus is Prostate Cancer. The currently accepted recommendation for prostate cancer screening is for men over 50 years old to submit to a yearly digital rectal exam (DRE) and a blood test called the PSA (prostate-specific antigen). Approximately 80% of men over 80 years old have prostate cancer. However, these cancers are rarely aggressive and generally do not cause an individual's eventual death. The emphasis for screening, therefore, shifts to men 50-80 years old. For African-Americans, the risk starts in their mid-forties.

The prostate is a walnut-sized organ positioned behind the pubic bone between the bladder and the rectum. The urethra, or urinary tube, passes through it and on either side of the prostate, courses a network of nerves that control sexual function. The prostate's role is to produce the rich fluid called semen that, during intercourse, mixes with the sperm and supports their 72 hour lifespan prior to fertilization. One of the many proteins produced by the prostate is PSA. It is produced by both cancerous and non-cancerous cells. In the common condition called BPH (benign prostatic hypertrophy), the PSA can be quite elevated and yet there may be no cancer at all. This condition occurs eventually in most men due to lifelong stimulation of the gland by testosterone and testosterone-like hormones. Cancer can occur in discrete small lesions in the gland and/or invade the entire gland and beyond. BPH, on the other hand, is benign enlargement of the entire gland, commonly occurs in men beyond the sixth decade, and is often the cause of more frequent urination. The prostate, in this case, chokes the urethra and prevents the bladder from emptying completely. Fortunately there are medications that can often help shrink the gland quickly and effectively before surgery needs to be considered. The DRE allows the clinician to evaluate the patient's prostate size, firmness, normal gland contours and the presence of any abnormal nodules. This exam is usually performed at the same visit as the blood test PSA.

PSA levels generally rise with age as the prostate naturally enlarges. A man in his early 20's & 30's usually has a low PSA of 1.0 or less. Some men continue to have a low PSA even into their 50's. Dihydrotestosterone (DHT) is responsible for prostate enlargement and therefore elevated PSA levels. DHT, however, is not specifically responsible for causing prostate cancer as far as we know. Concern for prostate cancer increases as the PSA approaches 4.0 and another measure called the free PSA is obtained. The percentage of free PSA to total gives us a measure of likelihood of prostate cancer according to age. A higher ratio of free to total PSA reduces the chances of cancer being present.

There is considerable debate as to how helpful the PSA screen really is. That is, if the ratio of free to total PSA is high, the standard next step is an ultrasound and needle biopsies of both suspicious and normal looking gland tissue. Although often positive for cancer, the biopsies are also just as often negative. Perhaps the PSA screening process is flawed and should be abandoned. But, if we no longer offer the PSA screen for men, there likely will be cancers left undiagnosed by the DRE.

At this time more sophisticated blood markers are being studied that are more specific for prostate cancer. Once standardized , they should streamline screening and better direct those needing biopsy and treatment.

Finally, many studies are underway to evaluate the role of nutrition to prevent prostate cancer. So far, although safe, saw palmetto has not been proven to either shrink prostate tissue or prevent cancer. Whether it will affect the incidence of prostate cancer won't be known for many years. Micro-nutrients such as zinc and selenium as well as vitamins and bioflavonoid antioxidants such as lycopene seem to positively affect prostate health and can therefore only be beneficial. We also know that high animal fat diets are detrimental to both prostate and general health and a most recent study in The American Journal of Clinical Nutrition followed 32,000 men since 1986 revealing the high vegetable diets of 3 to 10 servings a day minimized the development of BPH significantly.

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