



PROSTATE CANCER *HOT SHEET*

Us Too! INTERNATIONAL **SEPTEMBER 2003**

CELEBRATE PROSTATE CANCER AWARENESS MONTH 2003!!

Us Too! Co-FOUNDER SUCCUMBS TO COMPLICATIONS OF PROSTATE CANCER.

A born salesman, John M. Moenck was blessed with a great smile, a flair for words and the gift of persuasion. He possessed a genuine openness, which was known to coax even the most guarded of individuals into conversation within minutes.



JOHN M. MOENCK

Helped Found *Us Too!* in 1990 and Personally Counselling Thousands Of Patients and Families

“He was a very easy person to talk to, because he was such a good listener,” said Sally, his wife of 56 years. “There was just something about his voice, so reassuring, and the way he’d look you straight in the eye that made you want to share things with him.”

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Us Too! UPDATES PROSTATE HEALTH RECOMMENDATIONS

The *Us Too!* INTERNATIONAL Board of Directors approved an updated recommendation for prostate health. This recommendation includes the establishment of a ‘baseline’ PSA value and annual examinations. Annual prostate exams should be included as part of a man’s overall annual health profile and are recommended starting by age 40, for African American men and for men with a family history of prostate cancer, but not later than age 45 for all other men. Annual prostate exams should include:

- * PSA (Prostate Specific Antigen) blood test plus
- * DRE (Digital Rectal Exam)

Moreover,

1) *Us Too!* believes that annual testing is so important that men should make it a calendar event - such as your birthday, Father’s Day or during September, which is Prostate Cancer Awareness Month.

2) It is extremely important, too, to “KNOW YOUR PSA”. Keep a record of the exact numbers, not just that it is “in the normal range.” According to renowned urologist Dr. Patrick Walsh of Johns Hopkins, “for men in their forties, the PSA should not be higher than 2.5; for men in their fifties, it should not be higher than 3.5, and thereafter it should not be higher than 4.0”

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LOWERING THRESHOLDS OF PROSTATE SPECIFIC ANTIGEN FOR BIOPSY DOUBLES RATE OF PROSTATE-CANCER DETECTION

“Effect of verification bias on screening for prostate cancer by measurement of prostate-specific antigen” *New England Journal of Medicine (NEJM) 2003;349:335-42.*

The prostate cancer detection rate would double in men under 60 years of age if biopsy was recommended at a prostate-specific antigen (PSA) level of 2.6 ng/mL, according to researchers who assessed the screening characteristics of PSA measurements.

Rinaa S. Punglia, MD, MPH, Harvard Medical School, Boston, Massachusetts, United States, and colleagues used a mathematical model that corrects for verification bias to determine the overall diagnostic performance of the PSA test. This model plots for sensitivity and specificity along a receiver-operating-characteristic (ROC) curve that is specific for a particular PSA threshold value for biopsy.

Using data from 6,691 men (705 with biopsy) who had total PSA measurement and a digital rectal examination while enrolled in a screening study, the researchers constructed separate models for different PSA values in men under 60

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PROSTATE CANCER NEWS YOU CAN USE

Us Too! publishes a FREE e-mail based news service which provides updates on the latest prostate cancer related news. To subscribe or link to the archives simply visit the Us Too! Website: www.ustoo.org

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LONG TERM FOLLOWUP OF A RANDOMIZED TRIAL OF 0 VERSUS 3 MONTHS OF NEOADJUVANT ANDROGEN ABLATION BEFORE RADICAL PROSTATECTOMY.

Klotz LH, Goldenberg SL, Jewett MA, Fradet Y, Nam R, Barkin J, Chin J, Chatterjee S; THE CANADIAN URO-ONCOLOGY GROUP.

J Urol. 2003 Sep;170(3):791-4.

PURPOSE

In 1992 we initiated a national randomized prospective trial of 3 months of cyproterone acetate before radical prostatectomy compared to prostatectomy alone. Initial results indicated a 50% decrease in the rate of positive surgical margins. This decrease did not translate into a difference in prostate specific antigen (PSA) progression at 3 years. This report is on the long-term outcome (median followup 6 years) of this cohort.

MATERIALS AND METHODS

This prospective, randomized, open label trial compared 100 mg cyproterone acetate 3 times daily for 3 months before surgery to surgery alone. Randomization occurred between January 1993 and April 1994. Patients were stratified according to clinical stage, baseline serum PSA and Gleason sum. A total of 213 patients were accrued. Biochemical progression was defined as 2 consecutive detectable PSAs (greater than 0.2 ng/ml) at least 4 weeks apart, re-treatment or death from prostate cancer.

RESULTS

A total of 34 (33.6%) patients undergoing surgery only and 42 (37.5%) patients given neoadjuvant hormone therapy (NHT) had biochemical recurrence during the median followup of 6 years. Despite the significant pathological down staging in this study, there was no significant difference in number of patients with no evidence of biochemical disease (bNED) survival (p = 0.732). A bNED survival benefit favoring NHT was seen in men with a baseline PSA greater than 20 (p = 0.015).

CONCLUSIONS

After 6 years of followup there was

no overall benefit with 3 months of NHT. Improved bNED survival was seen in the highest risk PSA group (PSA greater than 20). The possibility that high risk patients may benefit from NHT warrants further investigation.

HERBAL EXTRACT KILLS PROSTATE CANCER CELLS

Zyflamend, an herbal extract, can destroy prostate cancer cells in the lab setting, new research shows.

Zyflamend, which is produced by New Chapter, Inc., in Brattleboro, Vermont, is composed of herbs with the ability to block an enzyme known as COX-2. Rofecoxib (Vioxx) and celecoxib (Celebrex) are two drugs commonly prescribed for arthritis pain that also block the COX-2 enzyme.

The herbs in Zyflamend include rosemary, turmeric, ginger, holy basil, and green tea, lead author Dr. A. E. Katz and colleagues, from Columbia University in New York, note. Other components are derived from hu zhang, Chinese goldthread, barberry, oregano and Scutellaria baicalensis.

In the new study, Katz's team added Zyflamend to culture dishes containing prostate cancer cells. Three days later, the researchers noted that the herbal extract had destroyed 78 percent of the cells. Further analysis revealed that the extract had triggered something in the cells that actually made them self-destruct.


The new findings were presented at the Society of Urologic Oncology meeting at the National Institutes of Health in Bethesda, Maryland.

"We are about to initiate a trial at Columbia looking at patients" with a prostate problem that, if untreated, often leads to cancer, Katz told Reuters Health.

In the meantime, Katz said he is already prescribing Zyflamend to patients who are at risk for a return of their prostate cancer after being successfully treated a first time.

"From our results in the lab, I feel that Zyflamend is a promising, novel agent for prostate cancer," Katz concluded.

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ENHANCED ULTRASOUND IMPROVES DETECTION OF PROSTATE CANCER

According to a recent article published in The Journal of Urology, the use of contrast enhanced color Doppler in endorectal ultrasound improves the detection of prostate cancer.

Prostate cancer is a common cancer among men in the United States. Prostate cancer is the second leading cause of cancer death in men in the United States. The prostate is a walnut-size gland that is located between the bladder and rectum and forms a component of semen. Prostate specific antigen (PSA) levels (a protein produced by the prostate that is elevated when cancer is present), a digital rectal exam (DRE) and transrectal ultrasound are common tests used to detect prostate cancer. If any suspicious mass is found through these tests, a patient must then undergo biopsies (the removal of a sample of tissue) to definitively determine whether cancer exists. However, it is imperative that a physician takes a biopsy from the area in the prostate where the cancer exists to provide accurate diagnostic information. Physicians often use endorectal ultrasound to help determine where in the prostate to take a biopsy. Researchers are attempting to improve upon the accuracy of ultrasound in the guidance of placement of biopsies, including the introduction of contrast, which help physicians to discern between healthy looking tissue and possible sites of cancer.

A new development in ultrasound involves the use of color Doppler imaging with microbubble contrast so that physicians are better able to determine the presence and exact location of a mass within the prostate. Doppler imaging can sense differences in velocity (i.e. blood flow versus solid tissue) and transmits these differences through different color pixels to create a picture on a screen. Microbubbles are tiny bubbles of gas that can permeate through small blood vessels without creating any harm. The microbubbles further enhance imaging by increasing the intensity of backscatter signal. Since blood vessels and blood flow are more prevalent in cancerous tissues

than regular tissues, microbubbles tend to concentrate in the cancer, which is revealed on the created picture. This allows physicians to more accurately locate where biopsies should be taken.

Researcher from France recently conducted a clinical study to determine the effectiveness of contrast-enhanced color Doppler ultrasound using microbubbles in determining biopsy sites in men suspected of having prostate cancer. This trial included 85 men who underwent conventional Doppler and microbubble-enhanced color Doppler during the biopsy procedure. The results between the two were directly compared based on biopsy results. Contrast-enhanced color Doppler had a 93% detection rate of prostate cancer, compared with only 54% for un-enhanced color Doppler. Biopsies from areas of the prostate that did not contain cancer occurred in 21% of biopsies under Doppler that was not enhanced, compared with only 11% of biopsies under contrast-enhanced Doppler.

The researchers concluded that microbubble-enhanced color Doppler used for endorectal ultrasound improves the detection of prostate cancer and reduces unnecessary biopsies, compared to color Doppler that is not enhanced. They also state that this procedure is simple and not time consuming. Patients suspected of having prostate cancer may wish to speak with their physician about the risks and benefits of microbubble-enhanced color Doppler in endorectal ultrasound for biopsy placement or the participation in a clinical trial evaluating other novel screening approaches.

Reference:

Roy C, Buy X, Lang H, et al. Contrast enhances color Doppler endorectal sonography of the prostate: efficiency for detecting peripheral zone tumors and role for biopsy procedure. The Journal of Urology. 2003;170:69-72.

VITAMIN D HORMONE MIMIC BOOSTS RADIATION RESULTS

A drug designed to mimic the effects of Vitamin D hormone may be able to boost the effectiveness of radiation treatment for prostate cancer, report

researchers in the current on-line edition of the British Journal of Cancer.

Prostate cancer is the most commonly diagnosed non-skin cancer and the second leading cause of cancer death in men in the United States.

“About 30 per cent of men with locally advanced prostate cancer fail radiation therapy because the cancerous cells become resistant to treatment,” said lead researcher Constantinos Koumenis. “Any agent that increases the cancer cells’ sensitivity to radiation, without significantly affecting normal cells, would be of great benefit.”

Increasing radiation dose is not always a treatment option because it can affect urinary, bowel and sexual function. In laboratory studies, researchers from Wake Forest University Baptist Medical Center found that Zemplar, a drug manufactured to mimic vitamin D hormone - the active form of vitamin D - worked in synergy with radiation therapy to kill cancer cells and prevent cancer cell multiplication, while having little effect on normal cells.

With the combination of the drug and external beam radiation therapy, researchers said they were able to lower the radiation dose by 2.4 times and get the same results as when radiation was the sole treatment.

Zemplar is one of several drugs designed to mimic vitamin D hormone, and is approved by the US Food and Drug Administration. It is used to treat high levels of parathyroid hormone and is being studied as a cancer treatment. Vitamin D hormone, also known as calcitriol, is not itself a viable treatment because in large doses it can lead to excess calcium in the blood and affect bone metabolism and structure.

Existing in several forms – some of which are inactive - small amounts of vitamin D are present in foods such as tuna, salmon and vitamin-fortified milk, although most vitamin D is made in the body after casual exposure to sunlight. The liver and kidneys help convert vitamin D to its active form, calcitriol, also known as vitamin D hormone. Its role is to

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RADIATION EXPOSURE TO FAMILY AND HOUSEHOLD MEMBERS AFTER PROSTATE BRACHYTHERAPY.

Michalski J, Mutic S, Eichling J, Ahmed SN. - Department of Radiation Oncology, Washington University School of Medicine, St. Louis, MO, USA

Int J Radiat Oncol Biol Phys. 2003 Jul 1;56(3):764-8.

Patients with localized prostate cancer frequently seek alternatives to radical surgery and external beam radiation therapy. Permanent prostate brachytherapy is an acceptable option. However, fears of radiation exposure to family members may deter some individuals from choosing this treatment option. A direct measurement was performed to determine the expected lifetime exposure from the patient with a brachytherapy prostate implant to family members and the household. After a permanent brachytherapy implant with (125)I or (103)Pd, patients and their family members were provided radiation monitors to measure direct radiation exposure at home. Each patient was given two monitors to wear, and each member of the household, including the spouse, children, and pets, was given a single monitor. In addition, four rooms in the house frequently occupied by the patient were monitored. Based on the reading from the dosimeters measured at the first follow-up visit, the lifetime exposure to each individual or room was calculated. Forty-four patients, along with their families, agreed to participate and complied with the use of the dosimeters. Twenty-nine patients received a (125)I implant and 15 a (103)Pd implant. Assays were obtained on 272 monitors: 78 worn by patients, 52 worn by household members, and 142 posted in rooms. Exposures measured by patient dosimeters were within the expected range for the type of implant received. Exposures to family members were low. Based on dosimeter readings, the calculated mean lifetime dose to a spouse from her husband was 0.1 (range: 0.04-0.55) mSv for a (125)I implant and 0.02 (range: 0.015-0.074) mSv for a (103)Pd implant. Other family or household

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LOWER PSA THRESHOLDS
(continued from page 3)

years and those 60 years old and older.

The researchers found that adjusting for verification bias significantly increased the overall diagnostic performance of the PSA test as compared with an unadjusted analysis.

Among men younger than 60 years, if the PSA value for biopsy recommendation were 4.1 ng/mL, the PSA test would have a sensitivity of 0.18, indicating that 82% of prostate cancers in this age group would be missed. Using the same PSA value among this age group, the specificity would be 0.98, indicating that biopsy would be performed in only 2% of men without prostate cancer.

Among men 60 years old and older, 65% of cancers would be missed (sensitivity of 0.35) and 12% of men without prostate cancer would undergo biopsy (specificity of 0.88) with the PSA threshold for biopsy set at 4.1 ng/mL.

“Lowering the threshold for biopsy from 4.1 to 2.6 ng/mL in men younger than 60 years would double the cancer-detection rate from 18% to 36%, whereas the specificity would fall only from 0.98 to 0.94,” Dr. Punglia and colleagues write.

In a related editorial, Fritz H. Schroder, MD, PhD, and Ries Kranse, PhD., Erasmus Medical Center, Rotterdam, The Netherlands, note, “predictions based on prognostic indicators have a limited value.”

Drs. Schroder and Kranse question whether the detection of missed cancers will reduce mortality and improve the quality of life among treated patients. They indicate that lowering the PSA threshold for biopsy will increase the rate of over-diagnosis, and may increase over-treatment.

The editorial authors conclude, “new recommendations for screening should arise from ongoing, randomised studies that are designed to show whether screening indeed reduces mortality from prostate cancer without unacceptably

reducing the quality of life.”

Response by the Us Too! Medical Community Outreach Committee:

Many of the headlines and articles reporting the results of a paper by Punglia et al in the July 24 New England Journal of Medicine are misleading. This research does not show that the prostate specific antigen (PSA) test is inaccurate. The research reported by Punglia et al suggests that the interpretation of the PSA test result should be changed. This is not an accuracy issue, it is a problem with how the results of an accurate test should be interpreted by the physician receiving the result - a very different kind of issue.

The PSA test, while it is biochemically much better than it was 15 years ago, is not perfect. And better tests are in development. But it misleads the public to state that the test is inaccurate. Its degree of accuracy can be judged by reading the complete article by Punglia et al, and the accompanying editorial comments by Schroder et al.

These articles also mislead by referring to prostate biopsies which are negative for cancer as ‘unnecessary’. If proper indications for biopsy are present, the biopsy should be done. The fact that a large proportion of such biopsies turn out to be negative is simply the price we pay for the early detection of the smaller proportion of cases of prostate cancer. But it is a disservice to call these negative biopsies “unnecessary”.

The Wall Street Journal recently ran an excellent series of articles urging imaging tests for persons with a family history of aortic aneurysm. Although the WSJ was among those newspapers that ran a misleading headline I am sure they would not classify those imaging tests which turn out to be negative as “unnecessary”. The same reasoning applies to negative biopsies for prostate cancer.

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OSTEOPOROSIS AILS MALES

HealthDayNews

While women have long been alert to the dangers of osteoporosis as they age, few men worry about weakening bones.

They should, new research shows.

As many as 2 million American men have the bone-thinning disease, according to the National Institutes of Health. And men over 50 are at greater risk of osteoporosis-related fractures than they are of prostate cancer, the National Osteoporosis Foundation says.

That 2 million figure pales when compared with the 8 million U.S. women with osteoporosis. But doctors and researchers are zeroing in on the fact that men can get osteoporosis and be successfully treated, too.

"The importance of men's bone health is starting to get on the radar screen," says Dr. Pamela Taxel, an endocrinologist at the University of Connecticut Health Center and a specialist in osteoporosis and men.

Seven-Year Study Under Way

The National Osteoporosis Foundation reports that one in eight men over 50 at risk of the disease will experience an osteoporosis-related fracture. And mortality in men one year after a hip fracture is twice that of women.

These figures, combined with the aging of the U.S. population, spurred the National Institutes of Health's Institute of Arthritis, Musculoskeletal and Skin Diseases to begin in 1999 a \$24 million, seven-year, seven-site study of 5,700 men over 65 to identify the prevalence and risk factors for osteoporosis.

Men are less susceptible than women to osteoporosis because they have bigger bones to start with, their bone loss begins later in life and progresses more slowly. And they don't have the rapid hormonal changes that women face during menopause, adds Dr. Clifford J. Rosen, director of the Maine Center for Osteoporosis

Research and Education.

But as men move into their 70s and beyond, their bone loss increases to the same level as women's, says Rosen, who recently gave an overview of research into men's osteoporosis at the annual meeting of the American Association of Clinical Chemistry in Philadelphia.

It isn't known why some men get osteoporosis and others don't. But scientists are looking at gender-specific genetic characteristics that might make some men vulnerable to the disease. They're also studying the protein IGF profactor-1, which could contribute to osteoporosis in men, Rosen says.

Bone Size, Estrogen Levels May Be Factors

Also interesting, Rosen says, is new research that shows the tissue that makes up the outer cortex of the bone can increase in adulthood.

An article by Swedish scientists in the July 24 issue of the *New England Journal of Medicine* found women can gain bone size in the outer tissue of the bone while bone density of the inner part of the bone is decreasing. This increase in size could be more pronounced in men because of their bigger bones, and could be another reason why men are at lower risk for osteoporosis, Rosen says.

"It could be that the male response to this phenomenon is more vigorous and more expansive, so that the outer circumference of the bone is more responsive to signals, whatever they are," he says.

Also of interest is the effect of men's estrogen levels on their bone health, says Taxel, which could lead to new treatments for men. "Not only testosterone but also estrogen may be important in men's bone health," she says.

At present, there are no guidelines recommending that all men should have bone-density screening tests, as there are for women. But Taxel says testing would be medically prudent.

Men who should have bone-density screening tests include those older than 55 who have lost 2 inches of

height. So should men who've had a bone fracture that wasn't caused by a major trauma, such as a car crash, but a simple fall — "a fragility fracture," Taxel says.

Risk Factors for Men

Other known risk factors for men, most of which parallel the risks for women, include a family history of the disease, kidney stones, alcoholism, smoking and taking steroid medications.

Men with problems with male hormone production and those on medication for prostate cancer that suppresses hormone production also should be tested.

Taxel says studies are showing the osteoporosis drugs approved for women have similar benefits for men. These include Fosamax, a brand name for alendronate sodium, which increases bone density and lowers the risk of fracture, and Actonel.

A newer drug called teriparatide, manufactured by Eli Lilly and Co. and sold under the brand name Forteo, also shows promise. It increases the action of bone-building cells called osteoblasts, which in turn increases bone density. This drug, however, has to be injected daily, so it's only used for very ill patients, Taxel says.

Men with osteoporosis are also urged to increase calcium and vitamin D intake and exercise regularly, Rosen says.

More information

The U.S. Food and Drug Administration has more information on men and osteoporosis. The American Medical Association has an article that says men are less likely than women to receive treatment for osteoporosis after sustaining a hip fracture.

CALLING ALL VOLUNTEERS!

If you are interested in serving on the *Us Too!* Board of Directors, or on one of many Committee's Task Forces or as a State/Local Chapter Coordinator please contact John Page at *Us Too!* See contact info on page 2.

NONINVASIVE DETECTION OF CLINICALLY OCCULT LYMPH-NODE METASTASES IN PROSTATE CANCER.

Harisinghani MG, Barentsz J, Hahn PF, Deserno WM, Tabatabaei S, van de Kaa CH, de la Rosette J, Weissleder R.

Massachusetts General Hospital and Harvard Medical School, Boston, USA.

N Engl J Med. 2003 Jun 19;348(25):2491-9.
Comment in: N Engl J Med. 2003 Jun 19;348(25):2487-8.

BACKGROUND: Accurate detection of lymph-node metastases in prostate cancer is an essential component of the approach to treatment. We investigated whether highly lymphotropic superparamagnetic nanoparticles, which gain access to lymph nodes by means of interstitial-lymphatic fluid transport, could be used in conjunction with high-resolution magnetic resonance imaging (MRI) to reveal small nodal metastases.

METHODS: Eighty patients with presurgical clinical stage T1, T2, or T3 prostate cancer who underwent surgical lymph-node resection or biopsy were enrolled. All patients were examined by MRI before and 24 hours after the intravenous administration of lymphotropic superparamagnetic nanoparticles (2.6 mg of iron per kilogram of body weight). The imaging results were correlated with histopathological findings.

RESULTS: Of the 334 lymph nodes that underwent resection or biopsy, 63 (18.9 percent) from 33 patients (41 percent) had histopathologically detected metastases. Of these 63 nodes, 45 (71.4 percent) did not fulfill the usual imaging criteria for malignancy. MRI with lymphotropic superparamagnetic nanoparticles correctly identified all patients with nodal metastases, and a node-by-node analysis had a significantly higher sensitivity than conventional MRI (90.5 percent vs. 35.4 percent, $P < 0.001$) or nomograms.

CONCLUSIONS: High-resolution MRI with magnetic nanoparticles allows the detection of small and otherwise undetectable lymph-node metastases in patients with prostate cancer.

RACIAL DIFFERENCES IN ANDROGEN RECEPTOR PROTEIN EXPRESSION IN MEN WITH CLINICALLY LOCALIZED PROSTATE CANCER.

Gaston KE, Kim D, Singh S, Ford OH 3rd, Mohler JL.

J Urol. 2003 Sep;170(3):990-993.

PURPOSE Black American men experience disproportionate mortality from prostate cancer (CaP) compared with white American men. Differences in outcome may stem from differences within the androgen axis. Since serum testosterone levels appear to be similar by race in men with CaP, we measured and compared androgen receptor (AR) protein expression in malignant and benign prostate tissue from black and white men who underwent radical prostatectomy for clinically localized CaP.

MATERIALS AND METHODS Archived radical prostatectomy specimens obtained from 25 white and 25 black men had AR protein antigen retrieved and immunostained. AR protein expression from CaP and benign tissue was assessed by 2 methods. Automated digital color video image analysis was used to measure the percent area immunostained for AR protein and the intensity of expression (mean optical density). Visual scoring was performed to compare results with automated values.

RESULTS In black compared with white men malignant nuclei were 27% more likely to immunostain for AR ($p = 0.005$) and in immunopositive nuclei AR protein expression was 81% greater ($p = 0.002$). Visual scoring of malignant nuclei revealed that AR immunostaining was significantly increased in black vs white men (171 +/- 40 vs 149 +/- 37, $p = 0.048$). In immunopositive benign nuclei AR

protein expression was 22% greater in black than in white men ($p = 0.027$). Visual scoring of benign nuclei revealed 20% increased immunostaining in black vs white men, although this difference did not attain statistical significance ($p = 0.065$). Racial differences in AR protein expression were not explained by age, pathological grade or stage, although serum prostate specific antigen levels were higher in black men (9.7 +/- 7.5 vs 15.5 +/- 12.2 ng/ml, $p = 0.049$).

CONCLUSIONS AR protein expression was 22% higher in the benign prostate and 81% higher in the CaP of black African compared with white men. CaP may occur at a younger age and progress more rapidly in black than in white men due to racial differences in androgenic stimulation of the prostate.

UCLA SCIENTISTS REPORT PRITIKIN DIET/EXERCISE PROGRAM KILLS PROSTATE CANCER CELLS

Daily exercise and the Pritikin diet, low in fat and high in fruits, vegetables, and whole grains, can destroy prostate cancer cells in the lab setting, new research shows.

“Our research found that the Pritikin diet and exercise program is almost twice as effective as exercise alone for inducing apoptosis, or cell death, in prostate cancer cells,” said James Barnard, PhD, professor of physiological science at UCLA and lead investigator on the study.

In the new study, published in the August 1, 2003 issue of *The Prostate*, Barnard and colleagues obtained blood serum from three different groups of middle-aged men. The first group was composed of 14 sedentary, overweight men who ate a typical high-fat, high-sugar U.S. diet. The second group included 8 men who had followed the Pritikin diet and exercise program for an average of 14 years. The third group was made up of 12 men who had been exercising regularly at the UNLV Adult Fitness Program for 14 years

but had not modified their diet.

The scientists placed the men's blood serums in culture dishes containing prostate cancer cells. Three days later, the researchers noted that the blood serum of the Pritikin followers had destroyed 50 percent of the prostate cancer cells. The serum of the exercise-only group had destroyed about 25 percent of the cells. In culture dishes containing the blood serum of overweight, sedentary men eating a typically high-fat American diet, fewer than 3 percent of the cancer cells were on their way to death.

"We didn't expect the results would be this dramatic," Barnard said. "We don't know yet whether these changes that occurred in a lab setting will also occur in patients, but epidemiological studies suggest they do. Malignant prostate cancer is rare among populations of the world, like Japan, that follow a lifestyle like the Pritikin Program.

"We know, too, that when Japanese men migrate to the United States and adopt this country's high-fat diet and sedentary lifestyle, their incidence of invasive and clinical prostate cancer increases greatly."

Among men in America, prostate cancer is the most common type of cancer other than skin cancer, and the second leading cause of cancer death, exceeded only by lung cancer. Some 30,000 men in the U.S. die of the disease each year.

"The results from our new research suggest that much of this death could be prevented by diet and exercise," concludes Barnard.

The Pritikin Longevity Center & Spa located at the Yacht Club of Turnberry Isle Resort in Aventura, Florida, houses Pritikin's residential program that combines education, low-fat eating and structured exercise, tailored to meet the needs of the individual. The Pritikin team is comprised of an exceptional group of experts in health science — all with the mission to help the program participants to adopt lifestyle changes that promote health and longevity. For reservations and rate information, call the Pritikin Longevity Center & Spa at (800) 327-4914 or visit the website at www.pritikin.com.

UNNECESSARY BIOPSIES ELIMINATED BY TRACKING PROTEIN PATTERNS IN MEN WITH SUSPICIOUS PSA LEVELS

Report from the AACR

Performing a complex proteomic analysis using mass spectroscopy may someday allow doctors to spare nearly two-thirds of men with suspicious levels of prostate-specific antigen (PSA) from undergoing follow-up biopsy, according to research presented here on July 11th at the 94th Annual Meeting of the American Association for Cancer Research (AACR).

"We don't want patients [to be] pincushions," said Emanuel F. Petricoin III, PhD, an investigator on the study and co-director of the U.S. Food and Drug Administration (FDA) laboratory of review in the Center for Biologics and Research. "The goal is to find a serum based test...that would guide who should have a biopsy and who shouldn't."

A team of University of North Carolina and government researchers ran serum samples from 63 men with PSA levels between 2.5 and 15 ng/mL. Of those sampled, 23 of the men had had two or more negative biopsies, 10 had had one negative biopsy and 30 had had biopsy-detected prostate cancer. The serum samples were used to form a protein expression algorithm designed to determine which patients could have been spared biopsy.

The retrospective analysis was performed by surface-enhanced laser desorption ionization time-of-flight mass spectroscopy. The data were then fed into pattern-recognition software to determine which sets of proteins are most likely to signal the presence of prostate cancer.

Using the proteomic algorithm, the researchers ran 91 additional samples from 28 men with prostate cancer and 63 with at least one negative biopsy on a WCX2 ProteinChip® Array, from Ciphergen Biosystems. That method yielded a sensitivity of 100% and a specificity of 67%, suggesting that two of three men without prostate cancer but with suspect PSA scores could have avoided the biopsy.

The same strategy is under examination at the U.S. National Institutes of Health (NIH) for ovarian cancer as well, and that test could be evaluated by the FDA within 18 months, according to Dr. Lance Liotta, the chief of the laboratory of pathology at the NIH's Center for Cancer Research.

Study title: Tracking Protein Patterns May Cut Biopsy Rates for Prostate Cancer. AACR Abstract 5736

NEW PROSTATE HEALTH RECOMMENDATIONS

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3) By tracking your PSA from year to year, you will know if it has increased too much since last year. A rise of 0.75 or more in PSA within a year may require further investigation. The rate of change can be more significant than the number itself.

Us Too! believes that following these recommendations will detect prostate cancer earlier, decrease deaths from it and improve the quality of life.

Earlier detected disease is more easily and effectively treated.

Us Too! also believes that the benefits of early detection and treatment outweigh the cost and inconvenience of occasional false positives that result in biopsies of healthy tissue. Those benefits are in the form of reduced overall cost and increased effectiveness of treating the disease.

RADIATION EXPOSURE POST-BRACHYTHERAPY

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members had 0.07 (range: 0.04-0.32) mSv or 0.02 (range: 0.015-0.044) mSv for (125)I and (103)Pd implants, respectively. The calculated lifetime exposure did not exceed the annual limit set by the U.S. Nuclear Regulatory Commission in any of the cases. The majority of room dosimeters (94%) had no detectable radiation exposure. Radiation exposure to family members from a patient receiving a permanent prostate brachytherapy implant with radioactive (125)I or (103)Pd is very low and well below the limits recommended by the U.S. Nuclear Regulatory Commission. Radiation exposure to members of a patient's family or to the public should not be a deterrent to undergoing this procedure.

JOHN MOENECK
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Mr. Moenck, 88, a retired manufacturer's representative and longtime prostate cancer survivor, who went on to help found *Us Too! INTERNATIONAL*, died Tuesday, Aug. 12, at Beacon Hill retirement home in Lombard, IL of complications related to the disease.

"He wanted to show people how to lead full, productive lives, while coping with the disease," said his wife. "His message was clear, 'If I can do it, then you can too.'"

Mr. Moenck was born in Tiffin, Ohio, and raised on Chicago's West Side,

work," said his wife.

Diagnosed with prostate cancer more than two decades ago, Mr. Moenck became a resident of Beacon Hill shortly thereafter and battled the disease from the onset, undergoing several treatments over the years, while achieving varying degrees of success.

According to family members, it was Mr. Moenck's strong desire to help others that led to his becoming a co-founder of *Us Too! INTERNATIONAL*.

"Johnny was always there, whenever he was needed. He was meticulous and extremely thorough, chronicling the growth and development of the

whose members over the years have cultivated several lush flower and vegetable gardens on the grounds.

"John was a sensitive and gracious gentleman who always was willing to help someone" said Edward C. Kaps, former chairman of *Us Too!*

"Through all my life he was like a father to me" said Don Peterson, a grandnephew. "He was a "Rock", an inspiration in my life" said Stacey Smith, a great-grandniece.

VITAMIN D

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increase calcium absorption from the intestine and promote normal bone formation.

The Wake Forest study is the first to show that Zemplar can sensitise cancer cells to radiation treatment. Previous laboratory studies showed that the drug can reduce the proliferation, or growth, of tumour cells.

"The fact that it is already approved means it could be used in treatment sooner," said Koumenis. "We've shown that the combination of Zemplar and radiation are synergistic in tumour cells, but much less so in normal cells. This means we could potentially increase the killing of the tumour cells, while minimising the damage to normal cells."

The researchers tested the treatment in prostate cancer cells taken from recent patients, as well as in a collection of tumour cells, called a 'cell line', that had been circulated among scientists for many years.

In the study, the researchers also compared Zemplar with vitamin D hormone, or calcitriol. Although Zemplar is designed to mimic the effects of calcitriol, it does not produce its side effects. The researchers found the Zemplar was just as effective as calcitriol when used in combination with radiation therapy.

The researchers say they have applied for funding to continue their research by studying the treatment in animals, where they hope to learn more about the optimum dose and timing of the combination therapy.



THE FIVE FOUNDING MEMBERS OF Us Too!

In 1990 these five prostate cancer patients from the University of Chicago got together to form *Us Too!*

From left to right: John DeBoer, John Moenck (deceased), Edward vonHoltz (deceased), Ed Kaps, and Vincent Young (deceased)

where he graduated from Austin High School. He joined the Army in 1943, where he served as a first sergeant in the same unit as former U.S. Sen. Bob Dole, in the 10th Light Mountain Infantry.

"They didn't know each other well, but my husband did meet Senator Dole during the war and really enjoyed following his career over the years," said his wife.

After the war, Mr. Moenck worked for many years as a salesman, and later, a manufacturer's rep for Good & Co., an upscale gift item distributor in Chicago, prior to his retirement.

"He was certainly suited and had the right personality for that line of

organization from the very start." said John DeBoer, one of two remaining Co-Founding members of *Us Too!*

"John was an amazing man, a very open individual, whose upbeat personality and warm smile always seemed to win people over," said David Zack, executive director at Beacon Hill. "As a longtime survivor of cancer, he touched hundreds of lives and helped so many people adopt a can-do attitude in fighting the disease."

John was an Eagle Scout and a member of the Chicago Mountaineering Club, and the Disc and Needle Music Club. An avid gardener, Mr. Moenck also founded the Garden Club at Beacon Hill,