US TOO! PROSTATE CANCER EDUCATION & SUPPORT — KNOW YOUR PSA

PROSTATE CANCER HOT SHEET

US TOO! INTERNATIONAL — MAY 2003

STEP UP TO THE PLATE, FIGHT PROSTATE CANCER

Dusty Baker

Los Angeles Times - April 14, 2003

This last year has been an exciting and challenging one for me, both professionally and personally. But, as challenges go, I faced a different sort of curve ball almost exactly a year ago: My doctor told me I had prostate cancer.

Fortunately, we caught it early, and so far I am doing well.

Recently, I read that a government panel, the U.S. Preventive Services Task Force, dropped its objection to routine prostate cancer screening, saying it is possible the tests save lives.

While this is certainly a positive step, this advisory panel stopped short of actually recommending routine prostate cancer screenings. I don't understand why.

Because early detection is key, and men need to be more proactive in this regard, I am disappointed by the panel's failure to recommend this life-saving step. Prostate cancer screenings not only can create awareness but also save lives.

We need to promote awareness and screenings. The American Cancer Society recommends that men 50 and older should have a prostate screening each year, and that those at high risk should begin at 45.

Because of my risk profile, my doctor first measured my baseline PSA, or prostate specific antigen, at the age of 40, and we have been tracking it ever since.

Doing so undoubtedly saved my life.

Many men, however, don't get tested because the guidelines on testing are simply not clear; others simply would rather not know.

Prostate cancer is the most commonly diagnosed solid tumor in men in the United States, and yet we do not take this condition seriously. More than 30,000 men will die from prostate cancer this year alone — that's one every 17 minutes.

This is especially important for people known to be at high risk, such as African-American men and men with a history of the disease in close family members. I fall into both of these high-risk groups.

Chicago Cubs Manager Dusty Baker

African-Americans have the highest rates of prostate cancer in the world and are 50 percent more likely to develop it than men of other racial and ethnic groups. In addition, I also have several family members who have either been diagnosed with prostate cancer or have died from it.

October was National Breast Cancer Awareness Month and, with all the pink ribbons, it was hard to miss.

I applaud woman for being so active, vocal and visual in their fight against breast cancer. They have taken control of this health issue. The breast cancer mantra is "early detection, early detection, mammograms, mammograms."

Critics of prostate cancer screenings say they are often unnecessary. I could not disagree more.

We have to step up to the plate and fight prostate cancer with the same enthusiasm as women approach breast cancer — their campaign is centered on screening and early detection.

If you have recently been diagnosed with prostate cancer, or like me have been treated, know your options.

Knowledge is power. I challenge men to gain a better understanding of the treatment options available and to familiarize themselves with the potential benefits and side effects of each treatment.

This will encourage a much more effective partnership with their physician.

Although treatment strategies have evolved over the last decade, men are still limited in their options, especially when it comes to preventing the high probability of progression or recurrence of the disease after initial treatment — something I think about every day.

Women are not ashamed to talk about breast cancer and its treatment, and they have shown the tenacity to fight for necessary resources to increase funding for screenings and research.

We must have a greater choice of options to detect and to treat prostate cancer at every stage, and I implore the government and the pharmaceutical industry to focus on screenings, early detection and on finding new treatments.

As a prostate cancer survivor, I urge men to take action.

Don't take your health for granted. Take a more proactive role in our health. If you don't do it for yourself, then do it for your family and friends.

It's time to knock this disease out of the park.

If you have not thought about prostate cancer, find out about it. Early detection saves lives. It saved mine.

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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PROSTATE SURGERY MAY SHORTEN PENIS

New research suggests that men who undergo surgery to remove their prostate as a result of prostate cancer may get a little less than they bargained for — in terms of penis size, that is. Researchers at the University of Miami in Florida found that men who underwent prostate-removal surgery, known as prostatectomy, experienced a slight decrease in the size of their flaccid and stretched penis. The length of the stretched penis approximates the length of an erect penis. In most cases, the size difference was quite small. But in 20 percent of the study participants, penile length decreased by at least 15 percent. Before undergoing prostatectomy, men should be told that they could walk away with a slightly smaller penis, study author Dr. Mark S. Soloway told Reuters Health.

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LIFESTYLE LINKED TO PROSTATE CANCER RISK

In a six-year study of 1,117 patients with localised prostate cancer, researchers from the University of Texas looked at prostate specific antigen levels, the aggressiveness of the cancer - measured by a biopsy Gleason score - and the size of the tumour. The researchers discovered that patients with a high risk of progression were significantly more likely to be obese, to exercise less than twice a week and to not undergo annual prostate screening. On the contrary, those with the lowest risk kept their weight down, undertook regular exercise and were screened regularly for signs of the disease. "What we are finding has positive implications for prostate cancer prevention," according to Dr Mfon Cyrus-David of the university's department of epidemiology. "It appears to be important that men maintain a low body mass index, exercise to the point of sweating at least two times a week, and are screened regularly for prostate cancer," he says. The researchers emphasise that their conclusions are preliminary and a follow-up study is needed to validate their findings.

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A DIET RICH IN FATTY FISH MAY LOWER MEN'S RISK OF PROSTATE CANCER.

A study reported in the medical journal Lancet tracked a group of 6,200 Swedish men for 30 years. The men who said they rarely or never ate fish were almost three times more likely to get prostate cancer, compared to men who said their regular diet included fatty fish such as salmon, mackerel and herring. Omega-3 fatty acids have been found to slow the growth of prostate cancer cells in test-tube experiments.

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DRUG INHIBITS GROWTH OF METASTATIC PROSTATE CANCER IN BONE

STI571 (imatinib mesylate, Gleevec), especially in combination with paclitaxel (Taxol), may be effective in controlling the spread, or metastasis, of prostate cancer to the bone, according to a new study in the March 19 issue of the Journal of the National Cancer Institute.

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EMORY GETS GRANT FOR PROSTATE CANCER STUDY

Emory University's Winship Cancer Institute has received a $10 million federal grant to launch a prostate cancer research project with 11 other universities in seven other states. Funded by the U.S. Department of Defense, the program will work on identifying new therapeutic targets for advanced prostate cancer. It is led by Dr. Jonathan Simons, Winship director, and Dr. Leland Chung, an Emory urologist. Prostate cancer is one of the main focuses at Winship as it applies for prestigious National Cancer Institute status as part of the Georgia Cancer Coalition, a state effort using tobacco settlements funds to improve cancer care.

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NEW METHOD FOR PREDICTING PROSTATE CANCER AND THE RISK FOR METASTASIS

A new study, published in the Proceedings of the National Academy of Sciences, has shown that in about 40% of men older than 50 the DNA of the prostate is damaged. This damage closely resembles that found in the DNA of prostate cancer. This cancer-like DNA could readily be identified using biopsy tissues and is believed to indicate a high risk for prostate cancer, according to the lead investigator, Dr. Donald C. Malins of the Pacific Northwest Research Institute in Seattle. Malins and colleagues have found that the damage to prostate DNA increases with age and that free radicals are likely contributing factors. Additional evidence in the report shows that the DNA from prostate tumor biopsies could be used to signal whether a prostate cancer has begun to metastasize, thus allowing doctors and patients to reach more fully informed treatment decisions. Prior to this discovery, the only practical method for determining whether a prostate tumor has metastasized, was to identify metastases in other parts of the body. Once a metastatic cancer has spread, intervention to save the patient's life is severely compromised. These new findings were obtained using a technique developed in Malins' laboratory combining highly sensitive and discriminating Fourier

transform- infrared spectroscopy with statistical analysis. Malins stated that this technique is ideally suited for physicians to identify patients at risk for developing primary prostate tumors. "Most importantly, this finding is particularly promising for determining whether a primary tumor has progressed to the metastatic state, and for identifying those patients at high risk for metastasis," said Malins, who is a member of the National Academy of Sciences. SOURCE Pacific Northwest Research Institute

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HRT PATCHES HELPING MEN WITH PROSTATE CANCER

Hormone replacement patches normally used by menopausal women have proved an effective treatment for men with advanced prostate cancer. HRT led to a regression of disease in 20 patients and improved their quality of life, said researchers who carried out a preliminary study in London. Prostate cancer is fuelled by the male hormone testosterone. When the disease spreads doctors try to hold it back by reducing the impact of the hormone. Hormonal drugs are used to cut production of testosterone or block its effect, and as a last resort the testicles are removed. But these treatments have significant side effects, including hot flushes, impotence, oesteoporosis, anaemia and breast growth. Oestrogen pills can also reduce testosterone levels but are too dangerous to use because of the risk of blood clotting. Doctors at Hammersmith Hospital and Imperial College found that within three weeks HRT patches reduced testosterone levels in the men to a point normally achieved by castration. Blood flow was good and bone density significantly stabilised or increased. Symptoms of the "andropause" - the male equivalent of the female menopause - were prevented, and quality of life generally improved. Prostate cancer generally affects men in their sixties or seventies, but doctors are seeing increasing numbers of middle-aged patients. It is the second most common cancer in men, with 24,700 people diagnosed each year in Britain. Of these, about half will die from the disease.

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SEQUENCE MATTERS WHEN USING NOVEL AGENT

An experimental agent that targets a cancer cell's protein shredding machinery (the proteasome) should be given either before or with taxane-based chemotherapy drugs, but not after, say researchers at The University of Texas M. D. Anderson Cancer Center who conducted laboratory tests using prostate cancer cells. The finding is important because the new therapy, known as PS-341 (Velcade), will likely be tried as new treatment for a number of cancers due to its effectiveness in multiple myeloma, says Christos Papandreou, M.D., Ph.D., assistant professor in the department of Genitourinary Medical Oncology. "It appears PS-341 could become quite a hit as a novel proteasome inhibitor, a drug that increases the effectiveness of chemotherapy agents," Papandreou says. "We know that while the sequence it is used in doesn't matter with certain classes of chemotherapy drugs, it does with others. Hopefully, future clinical trials will reflect this new understanding." The findings were published in the Proceedings for the 2003 Annual Meeting of the American Association for Cancer Research

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CHEMOTHERAPY FATIGUE SIGNIFICANTLY REDUCED THROUGH INTERVENTION USING CTF NUTRITIONAL SUPPLEMENT PROTOCOl

A new study using the CTF (Chemotherapy Fatigue) nutritional supplement protocol during chemotherapy demonstrated that a properly administered nutritional protocol materially enhanced chemotherapy patients' quality of life. A major side effect of chemotherapy is compromised quality of life including extreme patient fatigue. A human intervention trial conducted on thirty-one patients with recurrent ovarian cancer showed substantially reduced levels of fatigue with the introduction of turmeric-based herbal and nutritional supplements provided by New Chapter, Inc. of Brattleboro, VT. The research, conducted by Earl Surwit, MD along with herbal/supplement consultants Paul Schulick and Tom Newmark, will be presented at the Complementary Cancer Care Conference to be held at the Washington, D.C. Hilton Towers on Friday, April 11, 3:30-5:00 p.m. and Sunday, April 13, 11-12:30 (Herbal and Nutritional Intervention in Cancer Treatment session). Patients reported significant differences in their overall performance status from taking the supplements. They then completed a quality of life/fatigue questionnaire called the FACIT Fatigue Index (Functional Assessment of Chronic Illness Therapy), which is a measure of these factors for chemotherapy patients. Changes of greater than 4 points are considered medically significant, and the average increase in the FACIT Index for patients on the Surwit program was 24. No patient experienced less than a 4-point increase, which means that virtually all patients experienced a significant increase in the quality of life and general fatigue reduction (ranging from 48-52 to 5-52). Findings Presented at Complementary Cancer Care Conference April 11 and 13 in D.C.

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THALIDOMIDE USED IN CANCER BATTLE

Controversial drug thalidomide is proving a success helping scientists in their fight to find a cure for prostate cancer. Around 20 terminally ill men showed signs of improvement on the drug, which caused a national scandal in the 50s and 60s when thousands of children were born with horrendous defects, many missing limbs. Now researchers believe they are well on the way to finding a cure for the disease which is the biggest cancer killer of men and claims 8,000 lives a year. The team is only the second in the world to use the drug for prostate cancer - the first in America was unsuccessful as patients suffered serious side effects because the dose was too high. The Newcastle team now plan to use it on sufferers at an earlier stage of disease to see if it will cure them. Lead researcher Dr Marcus Drake, clinical lecturer in urology at the University of Newcastle, said: "We are very excited about these findings. "Lung cancer used to be the biggest killer of men but with smoking rates going down death rates are going down and prostate cancer has taken over.

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SALVAGE RADICAL PROSTATECTOMY AFTER RADIOTHERAPY FAILURE IN LOCALIZED PROSTATIC CANCER

Rigaud J, et al.

Prog Urol 2002 Dec;12(6):1179-87

OBJECTIVE: The objective of this study was to evaluate salvage radical prostatectomy after failure of radiotherapy for localized prostate cancer.

CONCLUSION: Radical prostatectomy after failure of radiotherapy is associated with considerable morbidity, but can achieve a good 10-year survival rate in carefully selected patients.

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PREDICTORS OF PROSTATE CANCER ON REPEAT PROSTATIC BIOPSY IN MEN WITH SERUM TOTAL PROSTATE-SPECIFIC ANTIGEN BETWEEN 4.1 AND 10 NG/ML.

Okegawa T, et al

Int J Urol 2003 Apr;10(4):201-206

OBJECTIVES: We determine whether the different molecular forms of prostate-specific antigen (PSA) and other PSA variables can predict prostate cancer in men undergoing repeat prostate needle biopsy.

CONCLUSION: fPSA/tPSA ratio, fPSA/cPSA ratio, tPSATZ and cPSATZ enhance the specificity of PSA testing

(continued on page 6)

FOLEY'S FOLLIES

A PROSTATE CANCER PATIENT'S POEMS ABOUT HIS DIAGNOSIS, TREATMENT AND ONGOING RECUPERATION

By Tom Morris

Foley's Follies

It was with me in the hospital.
It was with me in my home.
I think my Foley catheter
Deserves its very own poem.

I somehow knew I had it
During those first two days.
But I was in and out of sleep
In an after-surgical haze.

By Day Three, I was more aware
Of my little friend tagging along.
I knew whenever I moved
And when I did something wrong.

Sujenna, my nurse,
Told me problems that she listed.
If I felt I had to pee,
It meant the tubes were twisted.

But things went fairly easily
When wearing a hospital gown.
It was open at the bottom
And the tubing hung straight down.

But after putting on some underpants,
I draped the tubing into an S.
I curved it down and up and down again
But these turns involved a guess.

I did my best to figure out
Any slight twist or turn,
But whenever I had done it wrong
My flow started with a burn.

The catheter became a part of me.
Where I went, it went, too,
Like a jester in the court of kings,
Like a part of my retinue.

I switched occasionally to the leg pouch
Whenever I went outside.
I wore trousers with some extra room,
Which made the bag easier to hide.
By Day 13 the time had come,
To remove it finally.
I'd be urinating on my own.
Now … what was in store for me?

With the catheter in, it was easy
To empty the pouch when full.
With the catheter out, I'd be on my own.
Would I have much self-control?

This is one of the big milestones.
What side effects would be at play?
If I found that I had no control,
It would be upsetting every day.

As a test, the nurse inserted fluid
With a carefully measured count.
I could urinate with starts and stops.
My confidence began to mount!

For the seven weeks before surgery,
I tried doing something wise.
I could see it was already paying off,
All that Kegel exercise.

***Tom Morris** is a prostate cancer patient from Richmond VA who has written a series of poems about his life since being diagnosed with prostate cancer. A collection of his work is available for download on the **Us Too!** website :*
www.ustoo.org/poems.pdf

NEW CPDR NOMOGRAMS USE PROSTATE BIOPSY CORES POSITIVITY TO PREDICT OUTCOME AFTER RADICAL PROSTATECTOMY

By Justine A. Cowan
Technical Writer - CPDR

Clinicians at the Center for Prostate Diseases Research (CPDR) announce the development of a better, more effective prognostic model for better staging of patients after radical prostatectomy (surgery that removes the patient's prostate gland as a primary treatment when prostate cancer is detected). The new data, presented in the March 2003 issue of Urology, entitled "Using the percentage of biopsy cores positive for cancer, pretreatment PSA, and highest biopsy Gleason sum to predict pathologic stage after radical prostatectomy: The Center for Prostate Disease Research Nomograms" by Dr. Kevin Gancarczyk et al. (Urology 61 (3): 589-95) should prove extremely useful to pathologists and physicians when determining the course of a patient's disease after surgery.

Since 1993, urologists have used special tables know as "the Partin Tables" as a diagnostic tool for prostate cancer patients. Using such factors as clinical stage (T1, T2, or T3 - higher numbers showing more advanced cancer), the patient's prostate-specific antigen (PSA) number (a number higher than 4 indicates a large amount of this protein in the patient's blood and can be suspicious for cancer) and Gleason score - which categorizes the aggressiveness of a patient's tumor, urologists entered these factors into the Partin Table and were presented with a value indicating the patient's probability of having cancer outside the prostate. Unfortunately, many patients are now categorized at the same clinical stage being stage T1 (non-palpable upon digital rectal exam) so another prognostic factor was needed. Hence, the need for the means to better evaluate patient biopsies where the pathologist and clinician would have a means to keep track of the number of biopsy samples that were positive for cancer out of the total number of biopsies obtained. Generally, 6-12 biopsy samples are obtained from patients suspected of having prostate cancer.

The new tables, presented in this manuscript and soon to be known as "The CPDR Tables" are now available on the Internet at www.cpdr.org as an educational tool for patients to "plug in" their particular information to predict their staging, or how their disease has or has not spread, if they undergo radical prostatectomy surgery.

Dr. Judd Moul, CPDR Director and senior author of the study, is encouraged by these results and their potential to help patients. "This is a breakthrough - a very important finding - that we can now use this new prognostic factor. This research substitutes clinical stage of a patient's cancer with the number of positive biopsies out of total biopsies obtained. Patients are now more knowledgeable about the disease and this concept is easy for them to understand. We want to help them and ease their fears and the impact the disease has on their emotions and quality of life" said Moul. He continued with comments on presenting this new data to the general public. "We hope that by having these tables on the Internet it will improve the ease of use for patients and physicians. We also hope to print the new tables on small, credit card size guides that doctors can carry around with them in the clinic" Moul commented.

CPDR researchers plan further studies using a larger number of patients to validate the research, as well as collaborations with other groups.

VACCINE SHOWS PROMISE IS REDUCING TUMORS

A cancer vaccine tested on a dozen patients with metastatic prostate disease appeared to be safe and even reduced the number of tumor cells in most subjects, early data show.

While the study hasn't been completed, the results suggest the approach is valid, said officials at Geron Corp., a California biotech company sponsoring the study.

"The preliminary data are very encouraging," said Dr. Johannes Vieweg, a urologist at Duke Medical Center and lead investigator. "New therapies are urgently needed, especially for patients with metastatic tumors."

Geron was scheduled to present its findings at a meeting of cancer researchers in Toronto, but the conference was canceled because of fears about severe acute respiratory syndrome, or SARS.

The Phase I study is designed to test the toxicity of the treatment, called telomerase immunotherapy. Its goal is to "teach" the patients' own immune system to attack cancer cells that express telomerase, an enzyme that restores tiny bits of DNA at chromosome ends.

As normal cells divide over time, the tiny bits, called telomeres, shorten and die out. In cancer cells, the telomeres stay intact, and the cells continue to divide indefinitely.

Dr. David B. Karpf, Geron's medical director, said the vaccinations were well tolerated by all 12 patients. In addition, seven of eight who were monitored showed immune system responses, with the levels of circulating tumor cells falling substantially in all seven.

But Vieweg warned the follow-up period was short.

Geron's vaccine uses immune cells known as dendritic cells. They are taken from the patient, spliced with genetic signals from telomerase, and then returned to the patient.

Because it is present in most cancers, telomerase holds promise for use in a universal cancer vaccine for the treatment of a broad range of tumor types, Geron officials said. Two other studies are also under way.

ONLINE ACCESS TO MEDICINES FOR THOSE IN NEED

If you're concerned about your family's medical expenses, here's some good news. A new program is giving low-income and uninsured people access to information on getting hundreds of medications you need.

Last year, patient assistance programs provided $1.5 billion worth of prescription medications to five million Americans, including senior citizens whose only medical insurance is Medicare, which does not cover prescription drugs.

The pharmaceutical industry has a long tradition of providing prescription medicines free of charge to patients who might not otherwise be able to afford them.

Recently, the Pharmaceutical Research and Manufacturers of America (PhRMA) launched a new interactive Web site (www.helpingpatients.org) that provides a comprehensive one-stop link to more than 1400 medicines offered through more than 140 industry and 185 government and privately sponsored patient assistance programs. The Web site enables patients to fill out an online form and receive a listing of programs for which they may be qualified. PhRMA also publishes a printed version of the Directory of Prescription Drug Patient Assistance Programs, which lists programs, the companies that offer them, available medicines, basic eligibility requirements and contact persons.

Industry patient assistance programs are considered indispensible for ensuring that the neediest patients have access to medicines, but they alone cannot solve the underlying problem of healthcare access, including availability of prescription drugs at all income levels. The industry will continue to work cooperatively with organizations and individuals who are seeking public and private sector solutions to chronic health system challenges.

For more information or to find out if your family is eligible for a patient assistance program, go to www.helpingpatients.org or www.phrma.org.

EXTERNAL BEAM RADIOTHERAPY CAN RELIEVE METASTATIC BONE PAIN

"Bone metastases are a severe problem in oncology, since they usually are associated with pain. External beam radiation therapy (EBRT) has been, for many years, an important component of the treatment regimen to relieve pain," researchers in Italy report.

"We have performed a clinical study to evaluate the relationship of response to EBRT in terms of pain relief and improvement in quality of life (QoL). We were also interested in the incidence of acute toxicity with EBRT. We have prospectively evaluated 75 patients (median age 68 years, range 64-79 years) with bone metastases from prostate cancer treated with EBRT, radiographically documented from June 1999 to September 2000," wrote G. Di Lorenzo and colleagues, University of Naples.

"Additional therapies in these patients included: second-line hormonal therapy (HT) in 20 patients, chemotherapy (CT) in 25 patients, bisphosphonates in 45 patients. For all patients a pain and narcotic evaluation was done before entering the study. Assessment of response was carried out by evaluating pain relief," the researchers stated.

"QoL was measured by using the EORTC QLQ-C30 questionnaire. Toxicity analysis P was based on the ROTG grading system. Survival was calculated by Kaplan-Meier estimate from the start of EBRT treatment until the last follow-up or death," the researchers wrote.

A total of 61 out of 75 patients (81%) experienced some type of pain relief after treatment. The complete response rate was 23%. No significant difference in the response rates was found between the group treated with EBRT alone versus the groups treated with EBRT + CT or EBRT + HT. We noted a significant improvement in some of the scales of the considered EORTC-QLQC30 questionnaire. As expected all treatment-related complications were either grade 1-2 acute or subacute and transitory in nature," Di Lorenzo and colleagues stated.

(continued on page 6)

THE USE OF COMPLEMENTARY/ PREVENTIVE MEDICINE TO PREVENT PROSTATE CANCER RECURRENCE/ PROGRESSION FOLLOWING DEFINITIVE THERAPY

Moyad MA.
Curr Opin Urol 2003 Mar;13(2):137-51

Part I. lifestyle changes.

PURPOSE OF REVIEW The number one cause of death in the United States and in most countries around the world is cardiovascular disease. The number one or number two cause of death in prostate cancer patients is also cardiovascular disease. These observations do not serve to belittle the impact of prostate cancer, but are a reminder that the ultimate goal of healthy lifestyle recommendations is to reduce the burden of both of these major causes of death, especially after definitive prostate therapy. Patients need to be encouraged to know their cholesterol levels and other cardiovascular markers including blood pressure, as well as being aware of their prostate-specific antigen values.

RECENT FINDINGS Patients should not smoke, they should reduce their intake of saturated and trans fats, increase their consumption of a diversity of fruit and vegetables, consume moderate quantities of dietary soy or flaxseed, increase their consumption of fish or fish oils and other omega-3 fatty acids, as well as maintaining a healthy weight, getting at least 30 min/day of physical activity, and lifting weights several times a week. When in doubt it is important for the clinician and patient to realize that what is healthy for the heart is generally found to be healthy for the prostate. Many of these lifestyle changes, when accomplished on a regular basis, may dramatically reduce the risk of overall early mortality. Despite the simplistic and moderate recommendations in this manuscript, research suggests that few individuals are currently following these suggestions.

SUMMARY Clinicians need to constantly emphasize these basic changes in order to truly impact the overall health of any patient following definitive prostate therapy.

Part II - rapid review of dietary supplements

PURPOSE OF REVIEW The number one cause of death in the United States and in most countries around the world is cardiovascular disease. The number one or two cause of death in prostate cancer patients is also cardiovascular disease. These observations do not serve to belittle the impact of prostate cancer, but serve as a reminder that the ultimate goal of dietary supplement recommendations is to reduce the burden of both of these major causes of death, especially after definitive prostate therapy. Several supplements should be discussed with a patient following definitive prostate cancer therapy.

RECENT FINDINGS On the basis of observational studies, a general cheap multivitamin that provides the recommended daily values of folic acid, B6, B12 and vitamin D may reduce the risk of a variety of chronic diseases. Selenium supplements at 200 &mgr;g/day should be reserved only for men with a deficient level of plasma selenium, but healthy dietary sources should be recommended for most men. Low-dose vitamin E supplements may be adequate for current or recent smokers but not non-smokers. All men should be encouraged to consume healthy dietary sources of vitamin E, regardless of smoking status. Low-dose daily aspirin may be the best over the counter product to utilize as a preventive agent; this statement is made on the basis of the numerous clinical studies that support its use for individuals that qualify after consulting with their physician or a specialist to evaluate current cardiovascular risk. In addition, fish oil supplements have gained acceptance as a possible therapy in high-risk cardiovascular patients.

SUMMARY The potential future role in prostate cancer should be of interest, and preliminary data is noteworthy. Regardless, all of these supplements have indirect evidence for effects in prostate cancer, but it seems that only a minority of men overall qualify for them currently, with the exception of a low-dose aspirin or multivitamin.

EXTERNAL BEAM CAN RELIEVE METS BONE PAIN

(continued from page 5)

"The group treated with EBRT + CT experienced slightly higher toxicity rates. There were no treatment-related fatalities. Fourteen patients of 61 (23%) responders were alive at 12 months. Our results confirm the ability of EBRT to relieve bony pain in the majority of the cancer patients treated as measured by prospective analysis of pain scales prior to and after EBRT. Minimal side effects were experienced and QoL improved as shown by the results of the specific questionnaire," the researchers concluded.

Di Lorenzo and colleagues published their study in Oncology Reports (External beam radiotherapy in bone metastatic prostate cancer: Impact on patients' pain relief and quality of life. Oncol Rep, 2003;10(2):399-404).

NEWS YOU CAN USE

(continued from page 3)

compared to tPSA or cPSA when determining which patients should undergo repeat biopsy.

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PROGNOSTIC MODEL FOR PREDICTING SURVIVAL IN MEN WITH HORMONE-REFRACTORY METASTATIC PROSTATE CANCER.

Halabi S, et al Vogelzang NJ.
J Clin Oncol 2003 Apr 1;21(7):1232-7

Purpose: To develop and validate a model that can be used to predict the overall survival probability among metastatic hormone-refractory prostate cancer patients (HRPC).
Conclusion: This model could be used to predict individual survival probabilities and to stratify metastatic HRPC patients in randomized phase III trials.

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BIOCHEMICAL RECURRENCE FOLLOWING RADICAL PROSTATECTOMY: A COMPARISON BETWEEN PROSTATE CANCERS LOCATED IN DIFFERENT ANATOMICAL ZONES.

Augustin H., et al
The Prostate - Volume 55, Issue 1, 2003. Pages: 48-54

BACKGROUND: To assess whether differences of biochemical recurrence after radical prostatectomy exist between prostate cancers located in the transition zone (TZ) and peripheral zone (PZ).
RESULTS: In 63 (20.5%) patients the largest tumor area was located in the TZ.

A Kaplan Meier analysis of the matched pairs calculated an 80% actuarial cure rate of TZ cancers compared to 89% of pure PZ cancers (log-rank test P = 0.742).
CONCLUSIONS: TZ and pure PZ cancers matched by comparable pathological tumor stage, Gleason score, and surgical margin status showed no statistical difference in regard to biochemical cure following radical prostatectomy.

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MOLECULAR MARKERS OF OUTCOME AFTER RADIOTHERAPY IN PATIENTS WITH PROSTATE CARCINOMA.

Pollack A, et al
Cancer 2003 Apr 1;97(7):1630-8

BACKGROUND: Abnormal expression of key proteins of the apoptotic pathway has been associated with poor prognosis, although there have been few studies of these correlations in patients with prostate carcinoma who are treated with radiotherapy. The current study examined the association between expression levels of Ki-67, bcl-2, bax, and bcl-x in pretreatment biopsy specimens and patient outcome after definitive radiotherapy alone.
CONCLUSIONS: Abnormalities in the expression levels of bcl-2 and bax were associated with increased failure after patients were treated for prostate carcinoma with external beam radiotherapy. These biomarkers appeared to be useful in categorizing patient risk further, beyond Ki-67 staining and conventional clinical prognostic factors.

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GROWTH HORMONE-RELEASING HORMONE (GHRH) ANTAGONISTS INHIBIT THE PROLIFERATION OF ANDROGEN-DEPENDENT AND -INDEPENDENT PROSTATE CANCERS

Letsch M, et al.
Proc Natl Acad Sci U S A 2003 Feb 4;100(3):1250-5

The antiproliferative effects of an antagonist of growth hormone-releasing hormone (GHRH) JV-1-38 were evaluated in nude mice bearing s.c. xenografts of LNCaP and MDA-PCa-2b human androgen-sensitive and DU-145 androgen-independent prostate cancers. In the androgen-sensitive models, JV-1-38 greatly potentiated the antitumor effect of androgen deprivation induced by surgical castration, but was ineffective when given alone. Thus, in castrated animals bearing MDA-PCa-2b cancers, the administration of JV-1-38 for 35 days virtually arrested tumor growth (94% inhibition vs. intact control, $P < 0.01$; and 75% vs. castrated control, $P < 0.05$). The growth of LNCaP tumors was also powerfully suppressed by JV-1-38 combined with castration (83% inhibition vs. intact control, $P < 0.01$; and 68% vs. castrated control, $P < 0.05$). However, in androgen-independent DU-145 cancers, JV-1-38 alone could inhibit tumor growth by 57% ($P < 0.05$) after 45 days. In animals bearing MDA-PCa-2b and LNCaP tumors, the reduction in serum prostate-specific antigen levels, after therapy with JV-1-38, paralleled the decrease in tumor volume. Inhibition of MDA-PCa-2b and DU-145 cancers was associated with the reduction in the expression of mRNA and protein levels of vascular endothelial growth factor. The mRNA expression for GHRH receptor splice variants was found in all these models of prostate cancer. Our results demonstrate that GHRH antagonists inhibit androgen-independent prostate cancers and, after combination with androgen deprivation, also androgen-sensitive tumors. Thus, the therapy with GHRH antagonist could be considered for the management of both androgen-dependent or -independent prostate cancers.

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PREDICTION OF THE EXTENT OF PROSTATE CANCER BY THE COMBINED USE OF SYSTEMATIC BIOPSY AND SERUM LEVEL OF CATHEPSIN D.

Miyake H, et al
Int J Urol 2003 Apr;10(4):196-200

BACKGROUND: The objective of this study was to assess the usefulness of combined systematic prostate biopsy with the serum level of cathepsin D, which has recently been shown to be a useful marker for prostate cancer, to predict the disease extension.
CONCLUSION: Systematic biopsy together with serum cathepsin D and/or PSA was a useful predictor of the extent of prostate cancer. Patients with more than half the biopsy cores positive, >/= 15 ng/mL cathepsin D and/or >/= 10 ng/mL PSA could avoid prostatectomy because there is a significantly high probability that they already have extraprostatic disease.

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AN OPEN-LABEL PHASE II STUDY OF LOW-DOSE THALIDOMIDE IN ANDROGEN-INDEPENDENT PROSTATE CANCER.

Drake MJ, et al
Br J Cancer 2003 Mar 24;88(6):822-7

The antiangiogenic effects of thalidomide have been assessed in clinical trials in patients with various solid and haematological malignancies. Thalidomide blocks the activity of angiogenic agents including bFGF, VEGF and IL-6. We undertook an open-label study using thalidomide 100 mg once daily for up to 6 months in 20 men with androgen-independent prostate cancer. The mean time of study was 109 days (median 107, range 4-184 days). Patients underwent regular measurement of prostate-specific antigen (PSA), urea and electrolytes, serum bFGF and VEGF. Three men (15%) showed a decline in serum PSA of at least 50%, sustained throughout treatment. Of 16 men treated for at least 2 months, six (37.5%) showed a fall in absolute PSA by a median of 48%. Increasing levels of serum bFGF and VEGF were associated with progressive disease; five of six men who demonstrated a fall in PSA also showed a decline in bFGF and VEGF levels, and three of four men with a rising PSA showed an increase in both growth factors. Adverse effects included constipation, morning drowsiness, dizziness and rash, and resulted in withdrawal from the study by three men. Evidence of peripheral sensory neuropathy was found in nine of 13 men before treatment. In the seven men who completed six months on thalidomide, subclinical evidence of peripheral neuropathy was found in four before treatment, but in all seven at repeat testing. The findings indicate that thalidomide may be an option for patients who have failed other forms of therapy, provided close follow-up is maintained for development of peripheral neuropathy.

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OSTEOPOROSIS IN MEN WHO HAVE ANTIANDROGEN THERAPY OR SURGERY IS TREATABLE

Cancer, 2003;97(3ASuppl. S):789-795)

According to a study from the United States, "Osteoporosis is a complication of androgen deprivation therapy in men with prostate carcinoma. Androgen deprivation therapy, caused by either bilateral orchiectomy or treatment with a gonadotropin-releasing hormone agonist, decreases bone mineral density (BMD) and increases fracture risk. Other factors, including diet and lifestyle may contribute to bone loss. "There is limited information regarding the best strategy to prevent osteoporosis in men with prostate carcinoma. Lifestyle modification including smoking cessation, moderation of alcohol consumption, and regular weight bearing exercise should be encouraged. Supplemental calcium and vitamin D are also recommended. Additional treatment may be warranted for men with osteoporosis, fractures, or high rates of bone loss during androgen deprivation therapy. Intravenous pamidronate, a second generation

(continued on page 8)

RESEARCH INDICATES FOOD COMBINING MAY HELP FIGHT CANCER

Eating certain types of food together could help to fight cancer, according to new research.

The research suggests that food combinations such as chicken and broccoli or salmon and watercress bring together two important ingredients sulforaphane and selenium, making them up to 13 times more powerful at fighting cancer than they are on their own, reported BBC Online.

Foods such as broccoli, sprouts, cabbage, watercress and rocket contain high levels of sulforaphane, a plant chemical which could be linked to the prevention and treatment of cancer.

Poultry, nuts, fish, eggs, sunflower seeds and mushrooms are among those foods rich in the essential mineral selenium. Selenium deficiency has been linked to the incidence of certain cancers, including prostate cancer.

Scientists at the Institute of Food Research in Norwich were investigating genes that play an important role in the formation and development of tumours and the spread of tumour cells. They found that when combined, selenium and sulforaphane had a greater effect on the genes than they did alone.

"High concentrations [of selenium and sulforaphane] in the diet are normally required to protect against cancer, but when these compounds act synergistically, lower doses are needed to prevent cancer formation, Dr Yongping Bao, senior researcher at the IFR, was quoted by BBC News Online as saying.

"This is particularly good news as selenium and sulforaphane can be toxic at high levels," he added.

The research is published in the journal Carcinogenesis.

NOT ALL HERBAL MIXTURES HAVE SAME EFFECTS

Billions of dollars have been spent by U.S. consumers on alternative herbal therapies for the treatment of prostate cancer, which killed more than 30,000 American men last year, according to the U.S. Centers for Disease Control and Prevention.

Now, a new study on the cancer-fighting properties of these supplements by investigators at the University of Virginia (U.Va.) Health System shows that not all work the same biologically, even though they contain the same ingredients. Their research is published in Oncogene.

The research team, led by Dr. Dan Theodorescu, professor of molecular physiology and urology at U.Va., compared the herbal extract PC-SPES with a similar product called PC-CARE and found the two mixtures have different biological actions. PC-SPES is an abbreviation for "prostate cancer hope" ('spes' is hope in Latin) and is made up of a special blend of eight Chinese herbs. In some clinical trials, the mixture lowered a patient's level of prostate specific antigen (PSA) by up to 50% and had better results than a synthetic estrogen, diethylstilbestrol (DES), which is also used in prostate cancer patients.

PC-SPES was taken off the market a year ago, according to the Food and Drug Administration, after investigators found it some lots were contaminated with prescription drugs, including DES, a blood thinner and an anti-inflammatory drug.

Some cancer patients are rationing their PC-SPES pills as a result, according to news reports. The manufacturer has also gone out of business, causing other companies to make and market several other herbal mixtures with the same ingredients.

Using gene expression profiling, Theodorescu and his team found that the action of PC-CARE on prostate cancer cells was almost identical to DES, which blocks the male hormones that cause prostate cancer. The U.Va. researchers found, on the other hand, that PC-SPES affects completely different genes than DES, suggesting that estrogen is not the primary ingredient that acts on prostate cancer.

"This approach can be used to compare mixtures blended by different manufacturers using similar ingredients to see if they affect similar genes and are likely to have the same effect in patients with prostate cancer," Theodorescu said. "The results also highlight the fact that not all botanical formulations, even if they have the same basic ingredients, necessarily act the same on prostate cancer. This has been known for some time by patients and physicians but had not been evaluated using molecular tools."

Researchers identified several genes involved in the cell cycle of prostate cancer that are affected by PC-SPES. One gene, called NIMA-related kinase 2, is induced by PC-SPES and may be associated with arresting growth in cancer cells. By understanding the gene expression fingerprint induced by herbal mixtures, researchers at U.Va. are developing tools to identify which ingredients have the most beneficial effect on prostate cancer. "We may also eventually use this information to develop new drugs. That's what we're hoping for," Theodorescu said.

NEWS YOU CAN USE

(continued from page 7)

bisphosphonate, prevents bone loss during androgen deprivation therapy. Zoledronic acid, a more potent third generation bisphosphonate, not only prevents bone loss but also increases bone mineral density during androgen deprivation therapy. Other bisphosphonates may be effective although they have not been evaluated in this clinical setting. Treatment with estrogens or selective estrogen receptor modulators may also be effective. Monotherapy with bicalutamide or other antiandrogens may cause less bone loss than androgen deprivation therapy," stated M.R. Smith. Smith and colleagues published the results of their study in Cancer (Diagnosis and management of treatment-related osteoporosis in men with prostate carcinoma.