



PROSTATE CANCER *HOT SHEET*

Us Too! INTERNATIONAL

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PROSTATE SEED BRACHYTHERAPY

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Introduction

Brachy is a Greek prefix meaning "short." Brachytherapy is treatment from a short distance. Brachytherapy refers to a method of delivering radiation to cancers by placing radioactive sources either into or very close to the cancer. In the treatment of prostate cancer, it is the use of radiation therapy in which radioactive material, in the form of "sealed seeds," is implanted directly into the prostate. A fundamental advantage of prostate brachytherapy over external beam therapy is that dose delivery can be increased with a sharp attenuation gradient beyond the target volume, thus sparing normal structures such as the rectum and bladder. Because the dose rate drops off rapidly as the distance increases from the source, brachytherapy has the advantage of delivering a high dose to the prostate and minimizing radiation to normal tissues adjacent to the cancer.

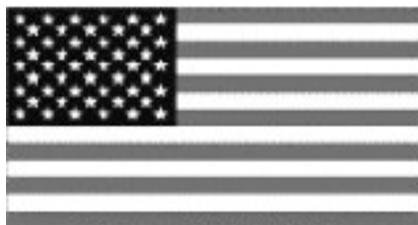
Is seed implantation new?

Brachytherapy is one of the oldest techniques using radiation therapy for the treatment of prostate cancer. The concept of insertion of radioactive sources into the prostate for the treatment of prostate cancer has a long history and dates back to the turn of the century. Early information on this procedure dates back to 1911, when Pasteau published his report describing the simple insertion of radium into the prostatic urethra via a catheter. In 1917, Barringer implanted the prostate gland

with radium needles. In 1922, Denning published a series of case histories using this technique. This method of treatment was successful for the short term, yet the complications affecting 15% to 20% of patients were significant. The placement of the seeds did not provide a homogenous (even) dose of radiation to the prostate. Many patients with prostate cancer were treated by a variation of this method with iodine 125 seeds in the 1960s and 1970s. At that time the radioactive seeds were placed in the prostate through an open surgical incision in the lower abdomen (retropubic technique). Without the benefit of modern imaging techniques, accurate placement of the radioactive seeds was difficult to achieve. Because of poor patient selection, the uncertainty of seed placement by this method, and variable results, this technique was abandoned in the early 80's.

By the late 1980s, technologic and scientific advances in trans-rectal ultrasound imaging had revived interest in seed implantation for the treatment of prostate cancer. The introduction of trans-rectal ultrasound probes made possible real time interactive placement of radioactive seeds into the prostate. In addition, the development of 3-D simulation software (similar to 3D glasses used for film viewing) allows accurate determination of the dose

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UNITED WE STAND
September 11, 2001

BETTER SEX AFTER PROSTATE DISEASE

By Justine A. Cowan
Technical Writer - CPDR

A diagnosis of prostate cancer is one of the most difficult things a man can hear from his physician. The first issue that usually gets addressed is survival - which treatment to choose. After treatment, quality-of-life issues become more prominent. Marriages can be tested during this time, especially since many men try to "solve the problems" on their own, frustrating their partners with the feeling that they are being excluded from critical decisions that affect both their lives.

One important area that is often not addressed by physicians treating prostate cancer patients, either due to embarrassment or just lack of available information on the topic, is the issue of sex after prostate disease. Intimacy is an important part of the relationship between prostate cancer survivors and their partners. It's a topic that is too often put on the "back burner" in the doctor's office but still pervades the couple's life. Prostate cancer survivors and their partners often want facts and answers about such issues relating to intimacy, such as impotence and sexual difficulties after their primary treatment, whether its surgery, radiation or hormonal therapy, but for one reason or another these topics are never addressed.

One prostate cancer survivor and his partner, Ralph and Barbara Alterowitz of Potomac, Maryland,

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CHEAP, COMMON ACNE MEDICINE MIGHT HOLD CURE TO CANCERS, RESEARCHERS SAY

Canadian Press - March 28, 2002

Researchers at the Hamilton Regional Cancer Centre have found that a common acne medication can reduce certain kinds of cancer tumours by a staggering 70 per cent in animal tests.†The discovery may one day lead to a safe and inexpensive cancer treatment that could spare the lives of thousands of Canadians who die each year after their breast or prostate cancer spreads to the bones.†Dr. Gurmit Singh, director of research at the cancer centre and the lead investigator of the project, expects clinical trials to begin this summer.†"I am thrilled with the results," said Singh. "I'd just like to get it into the clinic. It's only great news once it's tested in people. A lot of people have cured a lot of mouse tumours in the past."†Breast and prostate cancer are two of the most common forms of the disease, making up more than a quarter of all new cases that are diagnosed in Canada.†One of cancer's most lethal characteristics is that cancerous cells can slip away from the original tumour and migrate through the body to other locations.†These new tumours - called metastases - can take root in other organs and it's often these secondary tumours that cause death. For reasons still not fully understood, breast and prostate cancer metastases prefer to migrate into bones. Between 70 to 80 per cent of breast cancer metastases and up to 70 per cent of prostate cancer metastases end up in bones. Singh and his team discovered that tetracycline - an effective, dollar-a-day antibiotic that has been around for decades - can attack tumours that have migrated to bones. Tumour cells in the bone pump out an enzyme called matrix metalloproteinase, which chews up the bone and allows the tumour to expand. Tetracycline gets absorbed by the bones, however, and blocks the enzyme from breaking down bone tissue. More importantly, the Hamilton researchers also found that tetracycline can kill the metastatic tumour cells. "There's a very old hypothesis called Paget's hypothesis that says if the soil is rich, the seed will grow," Singh explained. "Bone is fertile ground for certain kinds of cancers." Tetracycline doesn't stop the signalling process that attracts bone metastases but it does make the bone inhospitable once the tumour cells get there. "The soil isn't

as fertile," said Singh. "It will kill them." But Singh's group also stumbled upon an unexpected bonus. They discovered that tetracycline not only killed tumour cells and stopped bone loss, it also promoted the growth of new bone tissue.†That's significant because broken bones are a common problem for cancer patients with bone metastases. Just over half of all women with metastatic breast cancer will suffer a bone fracture. "The cost savings would be huge in terms of hospitalization and also the quality of life of these patients," Singh added. The researchers hope to start clinical trials on prostate cancer patients in July or August, and then begin a second trial with breast cancer patients. "We don't know what we'll find in humans," cautioned Singh. "Even if we got a 20 per cent response in our clinical trials, we're looking at a big change."

DISEASE RECURRENCE IN PATIENTS WITH LOCALIZED PROSTATE CANCER PREDICTED BY PROLIFERATION OF MICROMETASTATIC CELLS

FaxWatch Inc. - March 21, 2002

Determination of the phenotype of individual micrometastatic prostate cancer cells may provide more useful prognostic information than just the determination of their presence or absence in the peripheral blood and bone marrow of patients with clinically localized disease, suggest new findings. "Some studies have demonstrated a correlation between [reverse-transcription polymerase chain reaction (RT-PCR)] detection of PSA-mRNA and disease recurrence," the authors wrote. "However, many RT-PCR-positive patients remain disease-free." To address this issue, they evaluated 58 patients undergoing radical prostatectomy, all whose bone marrow contained PSA-mRNA by RT-PCR. The researchers performed a phenotypic characterization of the micrometastatic cells. Mean follow-up was 22.4 months. In 21 (36.3%) patients, 1 or more micrometastatic cells were proliferating. Among this group, the disease-free survival rate was 76.2%. Of the 37 patients (63.7%) with nonproliferating cells, 97.3% remained disease-free. The only preoperative variable that correlated with disease-free survival was the presence of proliferating cells. (Bianco F, et al. Prostate 2001;49:235-42.)

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**NEW SERVICE ON MAYOCLINIC.COM
HELPS MEN WITH EARLY-STAGE
PROSTATE CANCER DECIDE WHAT
TREATMENT OPTION IS BEST**
AScribe Newswire - April 13, 2002

MayoClinic.com has developed a new service that guides men with early-stage prostate cancer through the decision-making process to determine what treatment option is best for their individual situation.

**ARNIE'S ARMY MARCHES ONE LAST
TIME IN SALUTE OF PALMER'S
MASTERS FAREWELL**
Canadian Press - April 13, 2002

AUGUSTA, Ga. - Ghosts used to be welcome at the Masters. If they weren't clanking their chains, they would settle for rattling their irons. But Augusta National isn't as accommodating to old men anymore, so golf's greatest spirit will no longer wander the Masters' fairways. With tears brimming in his eyes and a papal wave of his massive right paw, Arnold Palmer said goodbye to the tournament he made famous. The man who also did more than any other single figure to make millionaires out of the men and women who play the game missed the cut for good Saturday at age 72.

**LAPAROSCOPIC PELVIC
LYMPHADENECTOMY JUSTIFIED IN
SELECT PATIENTS WITH LOCALLY
ADVANCED PROSTATE CANCER**
FaxWatch Inc. - April 04, 2002

In a study assessing the role of laparoscopic lymph node sampling in patients with locally advanced prostate cancer before radical radiotherapy, researchers concluded that laparoscopic lymph nodes can be sampled safely by urologists with experience in laparoscopic surgery. "[P]elvic lymphadenectomy is justified in selected patients with locally advanced prostate cancer to choose the most appropriate treatment and to avoid unnecessary radiotherapy," the researchers concluded. (Parking J, et al. BJU Intl 2002;89:14-7.) In the context of clinical trials, an editorialist supports the use of laparoscopic lymphadenectomy as a "relatively noninvasive method of obtaining information on lymph node status." However, in the clinical management of patients undergoing radiotherapy for locally advanced

prostate cancer, "the case has yet to be made for the general introduction of pelvic lymphadenectomy." (Kirk D, et al. BJU Intl 2002;89:17-8.)

**AGENT ORANGE WIN FOR VETS; FUNDS
AWARDED DIABETES, CANCER
SUFFERERS**

LA Daily News - April 03, 2002

Vietnam veterans suffering from diabetes and prostate cancer after being exposed to Agent Orange won a round in their battle against the federal government. A federal appeals court ruled that the Department of Veterans Affairs must pay retroactive disability payments to thousands of Vietnam vets. The disability payments must date to when veterans initially applied for benefits under a law that allowed them to do so beginning Sept. 25, 1985.

**GENETIC TEST MAY HELP DIAGNOSE
PROSTATE CANCER**

A gene known as AMACR is overexpressed in prostate cancer tissue samples and may be a useful addition to current diagnostic tools for detecting the disease, which is the second leading cause of cancer-related death in men, according to an article in the April 3 issue of The Journal of the American Medical Association (JAMA), a theme issue on basic science and translational research. Mark A. Rubin, M.D., and colleagues at the University of Michigan Medical School, Ann Arbor, used microarray technology to determine the expression and clinical utility of a-methylacyl coenzyme A racemase (AMACR), a gene identified as being overexpressed in prostate cancer and its precursor lesion. Microarray technology allows researchers to put thousands of genes onto a small glass slide, similar to a computer chip, and evaluate them simultaneously.

**NONCLINICAL VARIABLES INFLUENCE
PROSTATE CANCER MANAGEMENT**
FaxWatch Inc. - March 21, 2002

Researchers found that baseline disease-related function as well as various nonclinical variables are important determinants of treatment of clinically localized prostate cancer. Using data from the Prostate Cancer Outcomes Study, they evaluated 3,073 men with clinically localized disease (T1 or T2). All

participants had completed a baseline survey, and medical records were reviewed to obtain diagnostic and treatment information. The investigators examined the association of sociodemographic and clinical characteristics with 4 management options radical prostatectomy, radiation therapy, hormonal therapy, and watchful waiting. These 4 treatment options were followed by 47.6%, 23.4%, 10.5%, and 18.5% of the subjects, respectively. Factors associated with conservative treatment (hormonal therapy alone or watchful waiting) after adjusting for age, clinical stage, baseline PSA, and histologic grade were history of a heart attack, being unmarried, geographic region, poor pretreatment bladder control, and impotence. With respect to race/ethnicity, aggressive treatment was similar among white (85.5%), black (88.1%), and Hispanic (85.3%) men among those aged less than 60 years. However, aggressive treatment was more likely among white and Hispanic men as compared with black men among those aged at least 60 years. "These results underscore the lack of consensus for care of this disease, probably attributable to the lack of definitive evidence of the efficacy of one approach versus another," the researchers commented. "Until such evidence can be obtained, we urge that men diagnosed with prostate cancer be informed of the potential risks and the potential benefits of all 4 main treatment options so that they might make an informed decision." (Harlan L, et al. J Natl Cancer Inst 2001;93:1864-71.)

FREE PSA MAY DOUBLE PSA ACCURACY
March 21, 2002

Many more cases of prostate cancer would be detected and many unnecessary biopsies avoided by using a more complex variant of the PSA screening test, two new studies suggest. Measuring free/total PSA ratios almost doubled the detection of prostate cancer compared with the total PSA measurement used under the Government's PSA Informed Choice programme. The National Screening Committee is currently assessing the relative benefits of different methods of taking PSA readings - including free/total PSA - in a bid to standardise the UK programme. Dr Muir Gray, programme director for the committee, said a

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BETTER SEX

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have taken their own experiences as well as those of many other survivors and their spouses, as related to them in cancer support groups and private conversations, and compiled them into a guidebook that discusses sexuality after prostate disease with candor and sensitivity. Their book *The Lovin' Ain't Over: The Couple's Guide to Better Sex after Prostate Disease* is a comprehensive overview of quality-of-life and medical issues covering the couple's relationship, regaining intimacy, and a discussion of 21 different therapies and medications including devices, which is designed to help survivors and their partners regain intimacy after surgery for prostate cancer. It also includes personal accounts of prostate cancer survivors (written to protect their anonymity) and vignettes of relevant research from professionals in the urology and cancer fields.

Ralph is quick to point out that intimacy is not just sexual. At a recent Us Too! chapter meeting at Walter Reed Army Medical Center

(WRAMC) in Washington D.C. where he and his wife were speaking, he told the audience in his distinctive Brooklyn accent "The whole body is involved in lovemaking, not just the

about this. You can learn how to make love with how you are today. Go ahead and express love for one another even if your situation or body changes." She continued "You, as a couple, can work together to recreate a new way of loving each other. Loving is a partner's activity. Many men feel that the burden of loving rests solely on them. It's just not true. Both partners are responsible for their loving experience. There has to be open communication between the two of you as a couple. Loving is a physical expression of your emotional intimacy."

The audience, comprised mainly of men and their spouses from the World War II generation who were not raised discussing sex and other similarly private matters, seemed to appreciate this realistic and compassionate approach to their questions and difficulties concerning their sexuality. Initially, there were some surprised expressions on audience members' faces when Ralph, who has some formal education in anatomy and doesn't mince words, began using terms such as erection, orgasm and ejaculation. He is also the founding vice chairman and former director of the National Prostate Cancer Coalition (NPCC) a patient advocacy group dedicated to

ABOUT THE CENTER FOR PROSTATE DISEASE RESEARCH (CPDR)

The Center for Prostate Disease Research (CPDR), established by Congress in 1991, which is located in Rockville, Maryland, is a unique asset in the battle against prostate disease. It is a Department of Defense (DoD) program affiliated with the Uniformed Services University of the Health Sciences in Bethesda, Maryland and is a collaboration with the Henry M. Jackson Foundation for the Advancement of Military Medicine. As the only free-standing prostate disease research site in the nation, it is comprised of five separate, interrelated programs including a Basic Science Research Program, Tri-Service Multicenter National Prostate Cancer Patient Database, Clinical Research Center located at Walter Reed Army Medical Center (WRAMC), Education and Training Programs, and a Tumor Tissue, DNA/RNA, Cell and Serum Bank. CPDR scientists regularly collaborate with researchers at the National Institutes of Health (NIH), the National Cancer Institute (NCI), the Armed Forces Institute of Pathology (AFIP), Human Genome Sciences, Inc. and many other institutions.

Any active duty or retired military healthcare beneficiary who is DEERS eligible can receive treatment at the Clinical Care Center located in the former Ward 56 at WRAMC in Washington, D.C. and be a part of the research effort to fight prostate cancer. CPDR also sponsors quarterly presentations and monthly support group meetings of Us Too!. Any active duty or retired military member affected by prostate cancer who is a military healthcare system beneficiary is able to give their consent to be entered into the DoD Tri-Service Multicenter National Prostate Cancer Patient Database, which currently has records on over 14,000 patients. The database is an invaluable research tool, which benefits all American men. Clinical trials are also available at WRAMC and prostate disease patients can participate as long as they meet eligibility requirements.

For more information on any of these programs you may access CPDR's newly redesigned website at www.cpdrr.org or call the Clinical Center at (202) 782-4000 or Headquarters at (240) 453-8900.

genitalia. It's a mind/body experience. A good physical relationship involves the whole person." Barbara offered the partner's point of view on intimacy after prostate disease "After prostate cancer there can be an island of silence relating to regaining intimacy in a marriage. One partner needs to reach out and connect with the other

lobbying members of the House and Senate for a continuation of funding for the prostate cancer research field.

Throughout the talk, Ralph also did a few "show and tell" demonstrations of devices, which can assist with patients' erectile dysfunction (ED) while Barbara displayed pertinent facts on the overhead and narrated from the podium. After a few minutes, though, audience members warmed up to the couple and began asking specific questions about impotence and ways to improve their post-surgery love life.

Ralph and Barbara know what they are talking about. They reached these insights through the shared journey of Ralph's prostate cancer and survival. He has a history of familial (hereditary) prostate cancer. His father suffered from it and with that knowledge, Ralph made a habit of closely monitoring his own prostate specific antigen (PSA) level over the years. In May 1995, however, his PSA had risen to 6.5. Ralph's physician performed a biopsy in July and the diagnosis of cancer was returned.

Ralph admits that his first reaction to this news was "complete denial". He and Barbara, who had been together since they met in an otherwise boring office meeting in 1979, were determined to learn everything they possibly could about prostate cancer. Their extensive research and strong relationship helped them transcend this episode in their married life. As Barbara said, when reflecting on that time period, "We knew we would make it together."

One area of difficulty the couple faced was a lack of information on erectile dysfunction. They attempted to learn the facts and realities about impotence, which is the result of prostate-related problems and a common side effect of prostate cancer treatments. It is aggravated and even can be caused by excessive drinking, smoking, or use of recreational street drugs, the effects

of aging, as well as many prescription medications. It can also be caused by accidents and injuries. In Chapter 2 of their book Ralph and Barbara cite that 70 to 90 percent of prostate cancer survivors who had surgery have erectile dysfunction for some time, or on a permanent basis. The nerve-sparing approach that surgeons often use during the radical prostatectomy operation doesn't always guarantee that a man's potency will return after his prostate cancer treatment. Ralph was faced with this reality after his own surgery. He openly described his own impotence after surgery "Like a lot of men, I thought I was the only one with erectile dysfunction."

In Chapter 2 of *The Lovin' Ain't Over*, Ralph and Barbara offer hope to couples experiencing the same dilemma: "Millions of men have given up on lovemaking because of their erection problems. In our prostate cancer community, one study found that the level of expressed "sexual interest" dropped by half after treatment...The fact is, men can continue to have a strong sex drive even if they have erectile dysfunction. It is possible to have good loving for the rest of your life regardless of age, whether you have erectile dysfunction or not. Many men with erectile dysfunction still have some erectile capability. And even without intercourse, you can still have a good love life."

After extensive research on the topic of impotence, the authors reached several conclusions. In response to the question of "What is normal?" in terms of a couple's sex life, they concluded that normal is whatever gives the prostate cancer survivor and his partner pleasure together. They chimed in that "There's no such thing as normal. Every sex life is different as each couple is different. It's normal to have interest in sex throughout your life." Barbara continued the thought "Both men and women want intimacy, including caring and caressing, feeling that they are desired and desirable, knowing that they are loved and wanted."

The couple offered some final thoughts to their audience including suggestions of how to improve post-surgery lovemaking including the practice of Kegel exercises, using gravity (male standing up) to assist with maintaining erections, manual stimulation of the man's genitalia (which is after all, a muscle) to increase circulation, and the use of herbal supplements such as Gingko and Kava, which can reduce anxiety in sexual performance.

Above all, Ralph and Barbara stress the need for open communication, humor and romance in a relationship. "Couples have to relearn how to make love and be tender. Build your own amorous scenario. Each couple should take the time to find their own pleasure points. Take the time, turn off the phone, don't be rushed, write love notes. Make love whenever and wherever you want".

In a hectic everyday world of traffic and cell phones, this is good advice for all of us.

The Lovin' Ain't Over: The Couple's Guide to Better Sex after Prostate Disease is available from Health Education Literary Publisher. Copies can be obtained by calling them at (516) 942-5000, contacting them via email at ecpcp@aol.com or visiting their website at www.ecpcp.org.

"I FLUNKED MY PSA: WHAT YOU NEED TO KNOW ABOUT PROSTATE CANCER, NOW!" by Ernie Bodai, M.D., (B2Z Publishing Inc., \$11.95)

This is Bodai's second cancer-education book, following last year's "I Flunked My Mammogram." Both are print versions of a long conversation with your doctor, and include discussions of risk factors, diagnosis, treatment and recovery. A portion of the profits from the new book will benefit PCa education programs.

Bodai is director of Breast Surgical Services at Sacramento Kaiser Permanente and created the breast-cancer postage stamp. He was diagnosed with prostate cancer in June 2000 and says that his health now is "great."

SEED BRACHYTHERAPY

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delivered to the prostate and surrounding structures, bladder, urethra and rectum. These new tools have permitted the refinement of brachytherapy for prostate cancer and have resulted in a more accurate method of delivering the dose to the prostate gland. Blasko and Ragde first completed this technique in 1985 in Seattle.

Method

For the management of prostate cancer, brachytherapy can be used as the primary treatment or in combination with external beam radiation or androgen deprivation, depending on stage of the disease and grade of the cancer. The most challenging aspects of brachytherapy are the identification of prostate volume and the accurate placement of the radioactive sources into the treatment target. Recent advances in real time imaging using biplanar trans-rectal ultrasound has allowed urologists and radiation oncologists to accurately visualize the prostate during the implant procedure. Development of a perineal template has also made the process of seed implantation more efficient and accurate. Instead of a freehand approach, a template (with pre-drilled evenly spaced holes) guides the needles as they are inserted into the prostate transperineally (behind the scrotum and in front of the anus). Once these needles are accurately placed in the prostate, radiation seeds are accurately delivered in evenly spaced positions within the prostate as the needles are retracted.

Permanent Implants

Permanent prostate implants are performed as a team approach by both an urologist and radiation oncologist. Radioactive iodine (I-125) or palladium (Pd-103) can be loaded directly through thin needles and left in the prostate permanently. While the active material is usually referred to as seeds, it is composed of tiny (4.5-mm) titanium cylinders about the width of a straight pin (0.8mm). Generally, about 60 to 130 seeds are strategically placed into the prostate gland. These types of seeds

are permanent implants and are not removed. As the radioactive seed decays it releases radiation into the surrounding tissue. For practical purposes, all activity has ceased by one year after the procedure and the titanium seeds sit quietly in the prostate just as surgical clips would. Although this procedure utilizes light general or spinal anesthesia, it can be performed in a single outpatient visit in under an hour, with the patient going home the same day. The number and activity of seeds used are based on a volumetric study of the prostate done using transrectal ultrasound completed before the implant (volume study). Prostate edema, swelling, and distortion are accounted for during the implant procedure; hence these implants are "pre-planned (hybrid) interactive". A permanent implant can be used as the sole modality for treatment of early stage prostate cancers at "low risk" for extracapsular extension or it can be used in combination with external beam radiotherapy for more advanced "intermediate or high risk" disease.

Since a uniform dose distribution is important, patients with either large prostate glands or locally extensive cancers may benefit from neoadjuvant androgen deprivation "cytoreduction" for 3-6 months before brachytherapy. Adjuvant hormone therapy for two years after the implant is sometimes recommended for patients at high risk of distant micrometastasis.

Efficacy and Patient Selection

The efficacy of brachytherapy, like all treatments for prostate cancer, is related to cancer grade, PSA, and stage. The risk of biochemical failure (high or rising serum PSA) may be as low as 5-10% for those patients with very limited disease and approximately 15-30% for those with larger and/or higher-grade cancers. The median follow-up in many series is greater than 7 years and the 10-year PSA results compare very favorably to other treatment methods such as radical prostatectomy or various forms of external beam radiotherapy, which have similar follow-up periods. PSA is the single best tool for detection of recurrence (as

it is for initial detection) and has been available for routine use since 1988. A rising PSA is useful to determine prostate cancer recurrence after any type of treatment.

Ideal patients for a permanent implant alone would be those with limited disease (ie. T1c or T2a cancer stage, Gleason grade <7, and a serum PSA < 10 ng/ml). Patients with larger cancers (ie. T2b or T3a disease, Gleason grade > 7 and serum PSA > 15 ng/ml) may be better candidates for a permanent boost implant in combination with five weeks of external beam radiotherapy.

Side Effects

50-85% of patients potent before treatment will remain so 5 years after implantation, depending on age. Viagra may be a real benefit for radiation-induced impotency. Although transitory urinary tract symptoms such have urgency, frequency, decreased force of the urinary stream are not uncommon, persistent symptoms occur in less than 10% of patients. Prophylactic Flomax, perioperative steroids, and anti-inflammatory meds such as Vioxx or Aleve can protect a patient during the treatment period. The risk of rectal ulceration is less than 1%.

Large Prostates

With pre-planned implants, prostate sizes greater than 50cc lead to pubic arch interference and difficulty placing needles as they were planned. With the use of interactive prostate brachytherapy, changes in ultrasound position or needle position can be made during the procedure and allowing coverage of larger prostates. The issue is no longer prostate size but the post-implant potential of urinary retention and need of a catheter. A careful pretreatment urologic history and judicious use of prophylactic alpha-blockers such as Flomax or Cardura allow patients with larger prostates to benefit from prostate brachytherapy.

TURP Patients

In the past Prostate brachytherapy was thought by some to be contraindicated in patients with previous TURP (transurethral resection of the prostate).

Data from Seattle in patients receiving uniformly loaded prostate brachytherapy had 300% hot spots near the urethra and resulted in incontinence rates in TURP patients of >30%. This information was one of the driving forces to deliver the dose more evenly throughout the prostate in what is now called modified peripheral loading prostate brachytherapy. Updated publications using peripheral loading techniques has reduced incontinence rates in TURP patients to less than 5%. Recent studies have revealed that patients with a previous TURP have less perioperative obstruction symptoms as well.

Salvage Prostate Brachytherapy

Local recurrence after external beam therapy has been a significant concern. Salvage treatment data is sparse and toxicity of retreatment can be high. Restaging of the patient including CT abdomen&pelvis, bone scan, Prostate, and rebiopsy of the prostate is important to identify the site of recurrence. In patients with prostate only recurrence, options include salvage prostatectomy, cryotherapy, hormone therapy, or brachytherapy. Published, five year recurrence free survival after salvage brachytherapy from experienced centers shows great promise, especially in selected patients identified early with PSAs < 10 and rebiopsy Gleason scores of <6. The incidence of serious side effects after salvage brachytherapy, such as incontinence and rectal complications, are lower than that reported after other types of salvage procedures.

Summary

Modern prostate brachytherapy is the result of advancements in minimally invasive, image-based surgical techniques, radiology and computer science. It requires a dedicated team including urologic surgeons and radiation oncologists experienced in the management of prostate cancer. Treatment can be tailored to the individual patient. Outcome data as long as PSA testing has been available continues to show the durability of benefit from this outpatient procedure.

NEW BOOK **HIS PROSTATE AND ME: A COUPLE DEALS WITH PROSTATE CANCER**

by Desiree Lyon Howe

Andy von Eschenbach said, "...is one of the most sensitive, enlightening, informative discussions of the impact of prostate cancer on a relationship I have ever read."

Book Description

HIS PROSTATE AND ME addresses, from a woman's point of view the prime issue that obstructs men from seeking treatment for prostate cancer: will I or won't I be able to function sexually for the rest of my life? Desiree Howe, who met and married husband Dick Howe after his prostate cancer surgery, answers that question with a resounding yes as she offers a frank and information-rich examination of her husband's and her experience with this "dangerous disease. The keystone of the book is Dick Howe's story, from diagnosis all the way through successful treatment for post-surgical side effects, including incontinence and erectile dysfunction.

Dick Howe, former president of Pennzoil, reacted to his diagnosis by immersing himself in an on-going effort to learn everything possible about the illness that threatened his life. So effective has he been in this endeavor that he is now widely considered the leading lay expert on the disease in the country. When he began courting Desiree Lyon, like him recently widowed, she realized that she would be enlisted in this mission, as well. With courage and humor she embraced the challenge, joining her husband in bringing open and honest discussion of every aspect of prostate cancer treatment to as many people as possible, either by appearing before groups or through individual counseling. In clear and readable prose, she accompanies their personal story with up to the minute, understandable, scientific information on the medical issues involved, including details of the many new and effective treatment options available. A comprehensive appendix lists information resources around the country. Every wife, partner or loved one

of a man diagnosed with prostate cancer will derive tremendous insight and guidance from the Howes' experience along with vital information to aid in navigating the complexities involved in confronting and surmounting this disease.

From the Publisher

In HIS PROSTATE AND ME: A Couple Deals with Prostate Cancer, Dee Howe removes one important barrier to better prostate health. She met and married husband Dick Howe after his surgery and in the midst of side effects they would triumph over together. She tells their story along with providing in depth up to the minute medical information that is useful to anyone facing a prostate cancer diagnosis. Dick Howe has devoted his post surgical life to helping prostate cancer survivors enjoy the active good health that can follow successful treatment.

Patients, survivor groups and physicians alike will benefit from reading the Howe's story.

One chapter of the book offers a who's who of the prostate cancer medical world. Other chapters describe the multitude of treatment options available. And a comprehensive appendix gives names, addresses and websites of support resources for patients and survivors.

From the Inside Flap

In this remarkable book, Dee Howe, the wife of the nation's leading lay expert on prostate cancer, offers a frank and information-rich examination of her husband's and her experience, from diagnosis all the way to successful treatment for post-surgical side effects.

Her clear and reader-friendly prose delineates the many new and effective treatment options available and offers details of the numerous resources existing to help a couple obtain support in their fight against this dangerous disease.

Every wife, partner or loved one of a man diagnosed with prostate cancer will derive tremendous insight and guidance from the Howes' story.

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Paperback (April 2002)

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PCA NEWS YOU CAN USE

(continued from P. 3)

conclusion was due in December but GPs should 'rely on their local laboratories' until then. The researchers, at St Mary's Hospital, London, screened 773 asymptomatic men aged 50 to 65 from nine west London general practices. Measuring total PSA alone using a cut-off of 4.0 ng/ml and above identified cancer in 2.59 per cent of men. In contrast there was a 4.27 per cent cancer detection rate in men who had a total PSA of 1.1 to 4.0 ng/ml together with a free/total PSA ratio of less than 20 per cent, according to results presented to the European Urology Association conference last month. Mr. Anup Patel, study co-researcher and a consultant urological surgeon, said 112 of the 130 men who qualified for biopsy using low total PSA plus free/total PSA ratio below 20 per cent agreed to a biopsy. Of these, 11.6 per cent were found to have prostate cancer. He said: 'These are men who had absolutely no symptoms. Every urologist in the country would not have biopsied these men.' A second study, by Canadian researchers, published in Urology last month, found using free/total PSA ratios could also significantly cut the number of false positive results compared with using total PSA alone. The researchers concluded that using a free/total PSA cut-off ratio of 21 per cent would maintain the cancer detection rate at 84 per cent but avoid 23 per cent of biopsies compared with using a total PSA cut-off of 4.0 ng/ml.

TRANSRECTAL GENE DELIVERY OFFERS DIRECT TARGETING OF PCA

NewsRx.com - March 22, 2002

University of Tennessee investigators have reported one of the first studies to examine the practicality and effectiveness of delivering gene therapy to prostate cancer tumors using a transrectal route. According to their report, the method represents a strategic way to direct adenoviruses encoded for therapeutic genes into malignant prostate cells although a minimal level of systemic dissemination can be expected. The technique makes use of ultrasound to guide an injection device across rectal tissues into the prostate. Key points of this study include: 1) After transrectal delivery of adenoviral-based gene therapy, gene expression could be detected at the injection site and in cells within 7.5 mm of the injection site; 2) Systemic distribution and rectal shedding may occur after transrectal delivery of gene therapy to prostates; 3) Transrectal delivery may be a practical way to administer gene therapy to patients with prostate cancer

HOW PATIENTS COPE WITH P CA

Health Media Ltd - March 27, 2002

Dr. David Ben-Tovim from Adelaide, Australia and his team established five psychological strategies for dealing with prostate cancer as - positive problem solving, self-reliance, emotional availability, distress, and solace in taking alcohol or drugs. To date, studies of coping

strategies for cancer patients have been conducted mainly in breast cancer patients. In contrast to other cancer patients, those with prostate cancer are said to place an emphasis on maintaining control and normality, with help from others seen as something to be "endured" for the benefit of the helper. The team set out to determine whether an underlying structure to the coping strategies used by prostate cancer patients existed and to assess the reliability and validity of measuring coping. Patients completed a questionnaire about quality of life, anxiety and depression. Data analysis revealed that coping could be described along five dimensions. The first dimension - positive problem solving - accounted for the largest proportion of the variance in coping. According to clinicians, the second (self-reliance) is representative of the younger patient with prostate cancer and can present particular problems to medics because it is a coping style that involves a mistrust of medical advice. The coping mechanism labelled "emotional availability" involves being open to support without actively seeking it. And this, suggest the researchers, may be characteristic of men whose response is to "withdraw from others at times of distress". The authors call for a longitudinal study to determine the wider clinical implications associated with each coping style. "There is a dearth of research into the psychosocial issues involved with prostate cancer," they argue. Reference: Ben-Tovim et al, Urology 2002;59:383-388

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