Outlook

Spring/Summer 2009

President's Message

It's been a very busy spring for BCAN, and the summer promises more of the same.

BCAN Staff Additions

Our staff is growing to keep up with the "demand." We welcome Liesl Swogger as BCAN's Marketing and Development Coordinator. She joins Claire Saxton, our Executive Director, and Janet McIver, Information and Outreach Coordinator.

Chicago Supporter Dinner and Scientific Advisory Board Meeting

Pat Screeden, Diane Quale, Jim Screeden, and Pete Stott
with BCAN's patient handbooks at our Chicago supporter dinner.

In April, Claire and I attended the American Urological Association Annual Meeting in Chicago, where we hosted a dinner for many of our friends and supporters in the Chicago area. We also held the annual meeting of BCAN's Scientific Advisory Board (SAB) which was well attended. We are pleased to announce that Dr. Gary Steinberg, Professor of Surgery and Chief of Urologic Oncology, University of Chicago, has been named as the Chairperson of our SAB for a two-year term. We are extremely grateful to our outgoing Chairperson, Dr. Cheryl Lee, for her dedication and commitment to BCAN's mission.

Cleveland Patient Forum

We traveled to Cleveland in May where BCAN hosted one of its regional patient educational forums, Understanding Bladder Cancer, at the Cleveland Clinic. Many thanks to Drs. Stephen Jones and Donna Hansel, the faculty chairs for our program, who put together an expert and informative panel that addressed a wide variety of

topics of interest to the bladder cancer community. More than 100 people attended the forum–survivors, caregivers and family members–and there was opportunity for many questions to be answered and new friends and contacts to be made. We will be posting webcasts of the doctors' presentations here on our website soon. We appreciate the support of GE Healthcare whose unrestricted educational grant made this program possible. We are planning our next regional patient forum for the San Francisco Bay area in Fall 2009. Stay tuned to our website for details.

BCAN Hosts Research Meeting

In August, BCAN is hosting the Fourth Annual Bladder Cancer Think Tank in Jackson Hole, Wyoming. This Think Tank Meeting, which convened for the first time in August 2006, is a unique opportunity for a multidisciplinary group of clinicians, scientists, lay advocates, and industry partners to focus exclusively on bladder cancer, exchange ideas and information, and identify opportunities for further collaborative research. The topic for this meeting is "Novel Therapeutics and Strategies for Muscle Invasive and Advanced Bladder Cancer." We are very proud to be part of this significant effort to increase and improve bladder cancer research.

BCAN Raises Money for Research

BCAN celebrated its fourth anniversary on June 7 at a cocktail reception in Chevy Chase, Maryland, in tribute to my husband, and BCAN co-founder, John Quale. It was a lovely evening, complete with jazz music from the St. Andrews Episcopal School Jazz Band.

Dr. Mark Soloway, BCAN Scientific Advisory Board member, speaks at BCAN's June 7th event, while Diane Quale, Director Jared Sher, and Virginia Quale listen.

Dr. Mark Soloway, one of the charter members of BCAN's SAB, spoke fittingly of John's role in raising awareness of bladder cancer and of the important work BCAN is doing to help bladder cancer survivors everywhere. We are extremely grateful to report that more than $60,000 was raised for this event. Please click here to view a list of donors. Proceeds will be used to fund the first BCAN Career Development Award for Bladder Cancer Research. This annual award will be given to one medical investigator whose research relates to bladder cancer etiology, detection, prevention, or treatment. In this way, John's legacy and memory will endure.

On a Personal Note

It has been a year since John died, and my family and I are eternally grateful for the love and support we have received from the BCAN community. Our family is not the only one to have suffered a loss from bladder cancer this past year, and my thoughts are with all who are moving through the grieving process. A friend recently shared these words from K Gibran: "When you are sorrowful look again into your heart, and you shall see that in truth you are weeping for that which has been your delight." May we all enjoy a summer of new delights.

Diane Zipursky Quale
BCAN President

On Trial

Researchers in the University of Virginia Department of Urology have developed a novel method that could help physicians determine the best course of treatment for patients suffering from bladder cancer. We thank Dan Theordorescu, MD, PhD, University of Virginia for the description of this promising new therapeutic tool. Although clinical trials of this promising new tool are being planned, Dr. Theordorescu does not expect trials to start enrolling until 2010.

The quest for tools that sample the "disease process" and predict therapeutic response in patients is not new. Over the past few years, the potential to personalize cancer therapy by the prediction of tumor response to therapeutic agents has gained momentum. Information generated by the Human Genome Project coupled with advances in molecular biology of cell signalling has opened up the potential not only for discovering new drugs that target cancer cells with specific biomarkers (such as particular gene mutations or overexpression of specific proteins) but also for predicting whose cancers would respond well to these new therapies (like Herceptin in breast cancer, Gleevec in leukemia, and Iressa in lung cancer).

In bladder cancer, no biomarkers have yet been validated through clinical trials to predict response and personalize cancer therapy this way. Recently, we have developed a novel algorithm we term "Co-eXpression ExtrapolatioN" (COXEN). COXEN compares the genetic analysis of the commonly used "NCI-60" cancer cell line to the genetic analysis of cancer cells being tested to predict their sensitivity to particular drugs. We have used the COXEN GEM ("score") to predict drug sensitivity of bladder cancer cell lines and clinical responses of bladder cancer patients treated with commonly used chemotherapeutic combinations such as MVAC (Methotrexate, Vinblastine, Doxorubicin, Cisplatin). In these patients treated with neoadjuvant MVAC the 3-year overall survival for those with favorable GEM scores was 81% vs. 33% for those with less favorable scores). Importantly, GEM scores effectively stratified tumor response and patient survival and this was independent of established clinical and pathologic tumor variables. COXEN GEMs were also used to successfully predict clinical outcome in patients treated with GC (Gemcitabine+Cisplatin), another common combination chemotherapy regimen used in bladder cancer. This methodology was also used to successfully predict the outcomes of 500+ patients with diverse tumor types such as breast, colon, lung, ovarian cancers treated with a variety of chemotherapy regimens and targeted agents.

In addition, by virtue of design, COXEN can also provide biomarkers for patient use for virtually any agents that provide a signal in the cell line panel assay. Hence, evaluation of the GEM panels to individual patient tissues offers the ability to "personalize" therapy for individual patients. Three trials are now being planned in patients with either superficial or muscle invasive bladder cancer. In these studies, patients will be assigned to the drug treatment regimen deemed most effective for their tumor among several available and common options.

Ask the Doctor

Our question for this issue of Outlook is answered by Matthew Nielsen, M.D., University of North Carolina at Chapel Hill. We sincerely appreciate Dr. Nielsen sharing his expertise regarding bladder removal surgery and the potential short-term as well as long-term issues that may arise from this major operation.

Q. What should a patient expect following surgery for bladder removal? What are some of the short-term complications that may arise (e.g. stoma problems, incontinence, infections, bowel issues) and what can be done? What are some of the long-term issues that may arise and what can be done to treat these issues?

A. Radical cystectomy, the removal of the bladder, is a definitive treatment for high-risk bladder cancer. Like any major surgery, numerous considerations factor into the decision to pursue this strategy, and to the extent that patients and their loved ones can anticipate some of the potential risks and side-effects associated with this treatment, they may better prepare for and cope with the stresses that sometimes accompany this journey. A more thorough understanding of potential risks associated with any treatment plan helps inform the decision to pursue that plan.

Bladder removal is a major operation and some patients may require blood transfusion during the postoperative period. The blood supply is very safe currently, however there are still small risks of transmission of viral illnesses (approximately 1/70,000 risk of hepatitis, approximately 1 in 2 million risk of HIV). For these reasons, some patients may elect to donate their own blood in anticipation of surgery, however this is not routinely practiced and should be discussed with your surgeon. The risks associated with anesthesia are negligible for most healthy patients, however you will undergo a thorough preoperative evaluation by your medical doctor prior to surgery to identify potential individual risks based on other medical conditions. Blood clots in the deep veins are another risk of surgery that can be mitigated with compressive stockings, early physical activity after surgery, and, at the discretion of your surgeon, blood-thinning medications to further minimize the risk.

Infection is a risk of any surgical procedure, which will be minimized by receiving a short course of antibiotics around the time of surgery. Additionally, patients with intestinal urinary tract reconstructions have higher rates of bacteria in the urine, which can translate into higher rates of kidney infections, supporting a higher index of suspicion for urinary tract infection in the setting of fever, flank pain, or other symptoms. Because the intestinal tract provides the raw materials for urinary bladder substitution, an inherent feature of radical cystectomy is the surgical disconnection and reconnection of the GI tract. This carries risks of bowel obstruction, which may occur early in the postoperative period or weeks to months later, and may in some cases require repeat surgery to relieve the obstruction. Additionally, intestinal leakage (fistula) may occur, which, though relatively rarer, can be extremely serious.

There is no perfect substitute for the urinary bladder and urologists rely on a number of different strategies involving “intestinal origami” to solve the problem of urine transport after removing the bladder. These different options have different profiles in terms both of quality of life considerations as well as potential risks and complications. With any type of reconstruction, there is a risk of scarring of the newly created connections between the ureters and the urinary diversion. This may result in infection or renal functional loss and may require additional procedures to correct the problem.

Patients receiving an ileal conduit reconstruction will have a urinary stoma on the abdominal wall which will be fitted with a stoma appliance (adhesive drainage bag) to collect the urine. This can be thought of a simple pipe

continuously draining the kidneys. Potential problems with the stoma include stenosis (scarring of the skin resulting in impaired drainage and occasionally pain). This can be minimized by obtaining a close fit around the edges of the stoma with the appliance base, which minimizes irritation of the surrounding skin from the alkaline urine. Many urologists work closely with enterostomal nurse consultants who can help patients acclimate to life with a urinary reconstruction and also identify the best appliance for a given patient, which may help mitigate this problem. Patients who develop stenosis may require additional procedures or, rarely, revision of the stoma to correct this.

Patients receiving a neobladder reconstruction face a number of additional considerations. It is not uncommon to observe mucus in the urine after intestinal segment urinary diversion, and this may be more noticeable—and potentially problematic—for patients with neobladders. Your surgeon may instruct you on techniques to irrigate the mucus from the bladder on a regular basis to prevent obstruction of drainage, which could result in leakage of urine into the abdomen, or potentially rupture of the neobladder. Regular irrigation may also help minimize infection and the formation of stones in the urine, which also may occur in the setting of urinary tract reconstruction.

For patients who receive a continent urinary diversion drained via the urethra (orthotopic neobladder), there may be problems with incontinence (urinary leakage) —particularly while asleep, though also during waking hours—or urinary retention (the inability to empty the bladder) which may require intermittent self-catheterization. Additionally, continent urinary diversions may take several months to dilate to their full capacity, which may require rigorous frequent emptying schedules under the direction of the surgeon. Mild incontinence may improve with time as the neobladder gains capacity and may also be managed with pelvic floor exercises or biofeedback. More severe cases may require additional continence-restoring procedures. Retention requiring catheterization has been reported to be more common in women than men. For this reason, some surgeons have their patients attempt self-catheterization of the urethra prior to surgery to ascertain the acceptability of this procedure should it be required after surgery.

Some patients may receive a continent catheterizable neobladder (drained via intermittent catheterization of a small stoma on the abdominal wall), which may be complicated by stenosis (scarring) of the catheterizable stoma. Any difficulty with catheterizing a continent stoma or emptying an orthotopic neobladder on a regular interval (typically once every several hours) should prompt an immediate call to your surgeon, as the consequences of an undrained neobladder can be severe.

In the longer term, there may be metabolic and electrolyte abnormalities associated with the exposure of intestinal lining (which functions to absorb materials) to the waste products excreted in urine. These will be detected by changes in blood electrolytes or acid-base status on routine blood work. These may be more common in patients with continent diversions and may require supplementation with different electrolytes or acid neutralizing medications (i.e. Tums). Chronic acid-base changes in the blood stream may result in bone loss, potentially requiring medical intervention. Some nutrients (i.e.vitamin B12) are absorbed in the gut segments used for urinary diversions, and months to years after surgery may require specific repletion strategies if a patient is found to have low levels in the blood. Certain medications excreted in the urine may also be reabsorbed in the urinary diversion and might therefore require modification of dosage, including some chemotherapy drugs and phenytoin (Dilantin) and others. Ask your doctor to review your medications and help make necessary dose adjustments.

Removal of the bladder in males with bladder cancer typically includes removal of the immediately adjacent prostate gland. This results in problems with erections in some men and infertility in all men as the anatomic

connections between the testes and urethra are disrupted. The nerves responsible for causing erection run adjacent to the prostate and may be injured in pelvic surgical procedures.Techniques to spare these nerves, developed for prostate cancer surgery by Dr. Patrick Walsh at Johns Hopkins in the 1980s, may be employed in radical cystoprostatectomy, preserving erectile function in many men. Major factors impacting the recovery of sexual function are patient age and erectile function prior to surgery, with younger men and men with intact erections experiencing the highest rates of recovery of potency. Some surgeons offer partial prostate-sparing techniques in carefully selected patients in an effort to reduce sexual side effects.

In women, bladder removal for bladder cancer historically entailed removal of the gynecologic organs (uterus and ovaries), including a substantial portion of the vagina (termed anterior exenteration), as these are immediately adjacent to the bladder in women. Further refinements of the surgical technique have afforded the ability to preserve some of these organs in selected patients, with resultant sparing of female sexual function. Sexually active patients of all ages should discuss sexual side effects of surgery with their surgeon prior to undergoing bladder removal.

The potential risks associated with bladder removal are balanced against the benefits afforded by aggressive treatment of a disease with real potential for causing harm. To the extent that patients and their families can better educate themselves about the potential risks and complications of this major intervention, and thereby pursue a thorough and informative consultation with their surgeon, the process can be greatly enhanced. This commentary is a brief overview of some of the potential issues that might be anticipated after bladder removal.

Volunteer Corner

BCAN Online Support Community First Annual Picnic

Almost two dozen members of the Bladder Cancer Advocacy Network's online support community from across the US are traveling to North Carolina's Smokey Mountains on July 18th to meet face-to-face with many of their virtual support "buddies." Over 500 survivors and their loved ones have registered for BCAN's online support community and provide support and inspiration to each other as they face treatment and long-term survivorship issues.

The picnic will be held on the top of a mountain in western North Carolina. One of the organizers, Nancy, said: "We are meeting to have fun, share stories, and collect our hugs." Although many of the members feel like family to each other because they are part of their cancer support network, only a few have actually met face-to-face. Dan Adams, another of the picnic organizers said, "we also want to spend some time talking about raising the awareness of Bladder Cancer." One of the ways the group is hoping to raise bladder cancer awareness in their local communities is by getting their local media to cover their story of traveling all the way to North Carolina to meet with other bladder cancer survivors.

There is a lot of excitement on the online community about the picnic. In fact, members of the online community who aren't able to attend are already talking about planning a second face-to-face get-together in the fall outside of Boston.

Thanks to these Urology Practices for linking to BCAN's webpage

We would like to thank the following urology practices for linking to BCAN's website: Center for Urologic Care in Pennsylvania; Florida Urology Physicians; Marias Medical Center in Montana; Mid-Peninsula Urology in California; Urological Associates, LTD in Virginia; Urological Associates, Inc. in Indiana; Urology Associates of Wisconsin; Urology of Indiana, and Vanderbilt-Ingram Cancer Center in Tennessee.

If you know of any other practices that currently link to BCAN in their patient resources, please let us know at volunteer@bcan.org. And if your urologist's website doesn't currently link to www.bcan.org, please consider asking your urologist to add a link. This is a great way for patients to find out about all that we offer to bladder cancer survivors, their families and the medical community.

It's Complimentary

Although medicines and devices to treat people with cancer must have approval from the Food and Drug Administration (FDA) before they are marketed, there are still many individuals and companies who hawk bogus cancer treatments. And the internet makes it easier for them than ever before. Because fraudulent information can travel around the web in an instant, the FDA is taking increased action to warn consumers about online cancer fraud.

"Anyone who suffers from cancer, or knows someone who does, understands the fear and desperation that can set in," said Gary Coody, R.Ph, national health fraud coordinator and a consumer safety officer with the FDA Office of Regulatory Affairs. "There can be a great temptation to jump at anything that appears to offer a chance for a cure."

According to Coody, many of these bogus treatments are offered as natural treatments or dietary supplements. Some are completely harmless but may cause indirect harm by delaying or interfering with proven, beneficial treatments. Others, like black salve that can leave terrible scars by burning off layers of skin, can prove to be very harmful.

The FDA says these phrases should be recognized as red flags:
"Treats all forms of cancer"
"Skin cancers disappear"
"Shrinks malignant tumors"
"Non-toxic"
"Doesn't make you sick"
"Avoid painful surgery, radiotherapy, chemotherapy or other conventional treatments."

The FDA also offers these signs to detect health fraud:
• Statements that say the product is a quick and effective cure all or a diagnostic tool for a wide variety of ailments
• Suggestions that a product can treat or cure serious or incurable diseases
• Claims such as "scientific breakthrough, "miraculous cure," secret ingredient" and "ancient remedy"
• Claims that the product is safe because it is "natural"
• Undocumented case histories or personal testimonials by consumers or doctors claiming amazing results
• Claims of limited availability and advance payment requirements
• Promises of no risk, money back guarantees

The U.S. Federal Trade Commission (FTC) has joined with the FDA to help people with cancer become more informed consumers. For more information, visit www.ftc.gov/curious.