Cancer Talk

Connecting with Manitoba's Health Professionals

Issue 10, Winter 2010

PET scans offer a different way to look at cancer

by Stu Slayen

PET (positron emission tomography) scans are playing an increasing role in Manitoba as oncologists use the technology to help stage cancer, assess a patient's response to treatment and to confirm the recurrence of cancer.

PET technology was installed in Manitoba in 2004 with the first patient being scanned in July 2005. PET scans are different from CT (computed tomography) scans, says Dr. Sandor Demeter, the Medical Director of Diagnostic Imaging in the WRHA and the new Head of the Department of Radiology at the University of Manitoba. "The PET scan measures physiology, not anatomy." So while a CT scan can identify a mass and note its size and density, a PET scan can confirm whether the mass is, in fact, a growing tumour rather than scar tissue or something benign. Because PET and CT scanning complement each other so well, they are generally performed together on a "PET/CT" machine, like the one in Winnipeg.

"Cancer is unregulated growth and it needs more energy than its neighbouring tissue," says Dr. Demeter. "The PET scan lets us see how hungry for energy the tissue in question is." The PET scan is especially useful in assessing lung cancer, lymphoma, esophageal cancer and recurrent colorectal cancer. PET scans lead to changes in patient management in about 25 to 40 per cent of the time, depending on the type of cancer.

Prior to the PET scan, the patient is injected with FDG (fluoro-D-glucose) and then rests comfortably in a reclining chair for about an hour while this "radioactive sugar" moves around the body, attracted to areas hungry for energy. The scan takes about 20 minutes; the entire process about two hours. There are no known side effects for the patient. Wait times for PET scans are currently under two weeks.

One of the challenges in managing the system, notes Dr. Demeter, is that the FDG has to be shipped in from Edmonton or Montreal and has a shelf life of only a few hours. That means every two hours, half of the FDG is lost. So a good winter snowstorm can wipe out an entire day's scanning schedule. That's all about to change with the installation of a cyclotron particle accelerator at the Health Sciences Centre. The cyclotron will be fully operational by the spring and will produce a much more reliable local supply of FDG. Dr. Demeter says that having an on-site cyclotron will also enable his team to make agents which are better at imaging tumours that do not need as much energy (e.g., prostate cancer) and are not well-imaged by FDG.

A PET scan can only be ordered in Manitoba by surgical, medical and radiation oncologists and a select set of other sub-specialists (e.g., respirologists and hepatologists). Because it is such a sensitive test, it is rarely used as a first or exclusive means of diagnosis. Most patients referred for a PET scan have already been diagnosed with cancer, but further information, such as staging or assessment for recurrence, is sought.

Dr. Sandor Demeter

Still, says Dr. Demeter, it is useful for primary care professionals to know about the scans because patients are becoming increasingly informed about the test. "Anyone with a serious diagnosis will Google it, and PET scans are often mentioned."

For helpful, patient-oriented information about PET scans, see http://www.wrha.mb.ca/prog/diagnostic/services_pet.php.

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Febrile Neutropenia Management in RHA-Central Manitoba Inc.

By Dr. C. Woelk , Boundary Trails CCP & Kyle MacNair, Pharmacist

Neutropenia is one of the most common toxicities of systemic chemotherapies and frequently results in dosage reductions and treatment delays that may limit the effectiveness of treatment.[1] Febrile neutropenia (FN) is a serious complication of this toxicity that can lead to substantial morbidity and death.

Key to the management of patients with FN is early detection and aggressive treatment with appropriate antibiotic therapy. In order for this to occur, both patients and healthcare providers must be well informed about the aetiology of the condition and its management. To accomplish this, the Community Cancer Program in the Central Region Health Authority developed two key tools. First, for patients in the program, a Fever Alert card was created that provides basic information about the patient receiving chemotherapy (treatment regimen, oncologist, etc) as well as a message to the healthcare practitioner reminding them of the possibility of FN and what the initial management steps should be. For healthcare professionals, a guideline was developed that outlined how patients with possible FN should be managed from initial presentation, through treatment and follow-up. The enclosed Febrile Neutropenia Flowchart accompanies the guideline.

These tools were the centerpiece of a region-wide educational effort directed at medical and nursing staff that ensures our healthcare facilities are prepared to appropriately manage this critically important iatrogenic condition. If you have any questions about the material produced by the Central Region Health Authority, please don't hesitate to contact us at macnair@prisminfo.org.

[1] Kuderer NM, Dale DC, Crawford J, et al. Mortality, Morbidity, and Cost Associated with Febrile Neutropenia in Adult Cancer Patients. Cancer 2006; 106(10): 2258-2266.

Wider Role for VGH Oncology Program

The Victoria General Hospital's beautiful new cancer clinic, the Buhler Cancer Centre, is making an expansion possible of the VGH's role in the delivery of cancer services in Winnipeg. In March 2010, Dr. Chris Ogaranko will begin working at the VGH supervising the treatment of patients initially assessed by a CCMB oncologist at its McDermot Avenue and St. Boniface sites. Dr. Ogaranko is a family physician in oncology (FPO) working at CCMB and the VGH since 2006. This new role will allow care "closer to home" for some CCMB patients from the south end of Winnipeg in a manner similar to the treatment provided in 16 rural hospitals that are part of the Community Cancer Programs Network. Dr. Ogaranko will also continue to share care with Dr. Ian Maxwell, the long-serving hematologist/oncologist at the VGH. In addition, hematologist/oncologists from CCMB will soon be working with VGH staff to provide a new weekly clinic for the assessment and treatment of patients with lymphoma and other lymphoproliferative diseases. Your referrals should continue to be sent to the CCMB Referral Office by fax at 786-0621, or call 787-2176.

The Buhler Cancer Centre brings care "closer to home" for south end patients.

Photo Credit Ed Mathis

Ask the Cancer Expert

Dr.K.A.Pathak is a Head and Neck Surgical Oncologist at CCMB and an Associate Professor of Surgery with the University of Manitoba

What are the next steps in working up a palpable thyroid nodule?

Ultrasound (US) imaging is the best choice but is operator dependent. It gives you an idea about the characteristics of the mass and about any associated lymphadenopathy. It does not involve radiation exposure and can be used for serial evaluation and image-guided fine needle aspiration. If there are concerns about extrathyroidal extension, extent of lymph node involvement or mediastinal spread, then a CT scan is very helpful.

What nodules need a biopsy?

Clinically suspicious nodules should be immediately biopsied: hard or fixed nodules; and those with associated lymph nodes, recurrent laryngeal nerve paralysis, or extrathyroidal extension. Biopsy is also suggested of nodules arising in patients < 14 or > 65 years, and in those with a history of neck irradiation or family history of thyroid cancer. After US a solid-cystic or solid nodule should be biopsied from the solid component. Any nodule whose US shows microcalcification, lymphadenopathy or ill defined margins require biopsy. Nodules increasing in size by 3 mm/yr or more on US examination or which are growing clinically should be biopsied.

Which nodules can I just follow?

Cystic nodules which disappear on aspiration and do not recur, nodules that spontaneously regress in size, and asymptomatic nodules less that 1cm that are stable on serial US can continue to be followed. Very small nodules and those located close to critical structures are hard to biopsy and can be observed by annual US examination to monitor their growth.

Referrals of patients with concerning thyroid nodules can be faxed to the CCMB Head and Neck Service at 786-0621 for assessment by one of the Head and Neck surgeons.

Announcements

A Few Words from CCMB's Screening Programs

ColonCheck MANITOBA

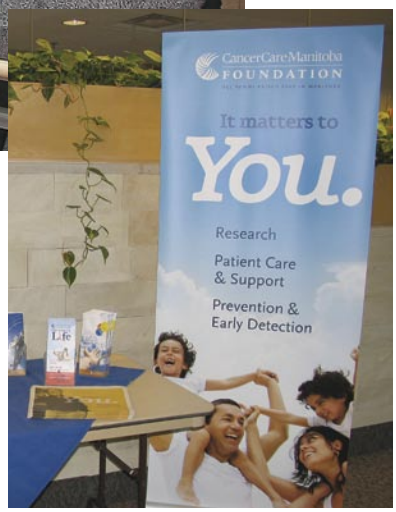
The Manitoba Colorectal Cancer Screening Program is now known as ColonCheck Manitoba. In addition to distributing FOBT kits through direct mail and the Breast Screening Program, we have partnered with physicians, clinics and pharmacies to distribute tests. March is Colorectal Cancer month! Cancer screening can save lives. Please contact us at 788-8635 if you are interested in collaborating with the Program or if you would like to order posters to promote colorectal screening. Toll Free 1-866-744-8961.

Breast Screening Decision Aid now available

The Public Health Agency of Canada has produced a decision aid to help women age 40 and older understand the benefits and limitations of breast screening for their age group. The aid is to increase knowledge so women can make a better informed decision about their health care. Copies are also available through the Manitoba Breast Screening program by calling 788-8633 and will be available to view on line at www.publichealth.gc/ca/decisionaids. Toll Free 1-800-903-9290.

MCCSP Set to Send Invitation Letters

Commencing March 2010, the Manitoba Cervical Cancer Screening Program will be sending out invitation letters to women who have not had a Pap test in five years or more. Letters will indicate that women are overdue for a Pap test and encourage them to make an appointment to be screened. If you wish to operate a Pap clinic in conjunction with the distribution of these letters, please call Lesley Dyck at (204) 788-8627, to understand how our program can support you. Toll Free 1-866-616-8805.



Cancer Day for Primary Care a Success!

CCMB/UPCON hosted the 6th Annual *Cancer Day for Primary Care* on January 22, 2010. Over 100 family doctors, nurse practitioners, family medicine residents and other primary health professionals attended the event in the Arnold Greenberg Lecture Theatre and through connections at eight MBTelehealth sites. View the presentations at: www.cancercare.mb.ca> Health Care Professionals>Education and Training>Cancer Day for Primary Care. The complete list of speakers and presentations are below.

Women's Cancers

Dr. Heather Frame
Hormone Therapy and Cancer Risks
Dr. Brent Kvern
Endometrial Aspiration Biopsy

Prevention

Dr. Dhali Dhaliwal
Smoking cessation:
Priority #1 for prevention
Dr. Greg Hammond
HPV and Cancer Prevention by Immunization

Palliative Care

Dr. Joel Gingerich
Chemotherapy and Advanced Cancer: When is enough, enough?
Dr. Susan McClement
Addressing Anorexia & Cachexia in Cancer Patients

Population Oncology

Dr. Donna Turner
The big picture: what are cancer stats telling us?

The Colon

Dr. Jeff Sisler
Colorectal Cancer Follow-Up: What to Do, and Why it Matters
(including 5-year Surveillance Recommendations & Checklist Stage II & III Node Positive Colon Cancer)

Cancer Innovations

Dr. Michael West
Gamma Knife Surgery for Brain Metastases
Dr. Andrew McKay
Update on Hepatic Resection for Metastatic Cancer

L to R: Gonny Munsamy MD (scholarship winner), Ruth Loewen (CCPN), Katie de Leon-Demare NP (scholarship winner), Jeff Sisler (UPCON) and Joan Stephens (CCMF).

Winners Announced for Community Cancer Care Scholarships

The Community Cancer Programs Network **(CCPN)** and Uniting Primary Care and Oncology **(UPCON)** are pleased to announce the winners of the Community Cancer Care Scholarships for 2009-2010. Two of the winners were awarded their certificates during the 6th annual *Cancer Day for Primary Care.*

Scholarships are designed for FPs, NPs and pediatricians in primary care practice and for all health professionals affiliated with the CCPN. Winners receive funding to do **one to two weeks of individualized study/training** related to the cancer care continuum or blood disorders.

Funding for scholarships is supported by the CancerCare Manitoba Foundation (CCMF). A partnership between the Brandon RHA and the CCMF made funds available to three CCP nurses this year. The winners are:

- Trina Mathison MD
- Katie de Leon-Demare NP
- Gonny Munsamy MD
- Leanne Dilay Pharmacist

CCMF and Brandon RHA Partnership

- Jodee Cobb-Adair RN
- Karen Doppler RN
- Charlyne Wiseman RN

PET Indications from P. 1

Brain: Follow-up, scar versus recurrent/residual brain tumours where MR or CT findings are not diagnostic. Role is evolving since inception of gamma knife.

Breast: Staging/restaging in suspected spread of breast cancer to axillary or internal mammary nodes. Follow-up and response to therapy. Usually for aggressive disease in young women.

Colorectal: Restaging with a rising CEA value. Follow-up.

Esophageal Cancer: Staging, follow-up, restaging, response to therapy.

Head & Neck: Staging, restaging, follow-up.

Lung: Staging, restaging, pulmonary nodule evaluation.

Lymphoma: Staging, restaging, response to therapy.

Melanoma: Staging, restaging, response to therapy.

Neuroendocrine Tumours: Staging, follow-up, restaging, response to therapy.

Primary Unknown: Staging, follow-up, restaging, identification of primary.

Thyroid: Staging and assessment in Thyroglobulin positive, iodine non-avid disease and where conventional imaging (MR, CT or U/S) is unhelpful.

Referral by medical, radiation, and surgical oncologists and select sub-specialists (e.g. respirologists, hepatologists).

UPCON

Got a Cancer Question?

Call the UPCON HelpLine
226-2262 (CCM-CCMB)
8:30-4:30 Monday-Friday

UPCON
Uniting Primary Care and Oncology