

Spring 2004

access

February is Heart Month

February is heart month—so it's a great time to highlight the advantage of combining Coronary Artery Calcification (CAC) scoring into a patient's overall CAD risk profile.

Traditionally, we have looked to conventional risk factors (high blood pressure, high cholesterol, overweight, family history etc.) as predictors of future coronary artery disease. But those risk factors may fail to explain nearly 50% of CAD events! The JAMA study mentioned in our Health News Flash demonstrates that a high CAC score can "significantly modify predicted risk" and make a difference in the clinical management of patients.



Not only does CAC scoring do a good job of helping assess the risk of coronary events, but studies are now showing that patients who have a CAC scoring done are more likely to adopt and adhere to a risk factor optimization program, whether it is diet, exercise or medication.

Wishing everyone a healthy 2004!

Shelley James, General Manager

What's New at Canada Diagnostic Centres

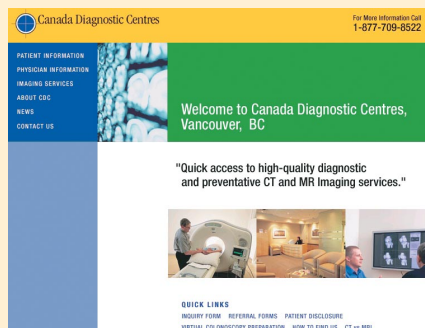
Virtual Colonoscopy evening

On January 27th, Dr. Borys Flak, Radiologist at Canada Diagnostic Centres, spoke to a group of Family Physicians about the technique, interpretation and current and future role of Virtual Colonoscopy. Recent studies had given the exam the thumbs up as an accurate screening method for asymptomatic adults and physicians in the Lower Mainland were eager to hear more about it. For more information on Virtual Colonoscopies or to get in touch with Dr. Flak, please contact Shelley James at sjames@canadadiagnostic.com



New Website

Late in 2003, we launched our new website at www.canadadiagnostic.com. With comprehensive patient and physician sections, our goal is to provide you with thorough information on the latest technology available at Canada Diagnostic Centres. For the medical community, the site also offers referral guidelines for CT and MRI scans and links to relevant reference material. We are looking forward to hearing your feedback and suggestions for improvement!



Health News Flash

Big News on CT Virtual Colonoscopy and CT Coronary Artery Calcification Scoring!

December and January were big months for two of our screening tools: Both Virtual Colonoscopy (VC) and Coronary Artery Calcification Scoring (CACS) received positive reviews in world-renowned medical publications.

In December 2003, an article in the New England Journal of Medicine evaluated the performance of CT Virtual Colonoscopy (VC) versus Optical (Endoscopic) Colonoscopy¹. 1233 asymptomatic adults underwent both exams on the same day. For polyps > 10mm in diameter, VC had a sensitivity of 93.8% and a specificity of 96%, compared to the endoscopic procedure, which had a sensitivity of 87.5%. The researchers concluded that VC can be considered an accurate screening method for the detection of clinically relevant lesions in asymptomatic, average-risk adults.

In January 2004, JAMA published a study of 1312 asymptomatic adults, who had their coronary heart disease risk assessed with the Framingham Risk Score (FRS) and CT Coronary Artery Calcifications Score (CACS) and who were followed clinically for 7 years². The subjects had at least one traditional risk-factor and none were diabetic. The results indicated that CACS can significantly modify predicted risk by Framingham criteria and can therefore be useful in selecting patients in the intermediate risk category who may benefit from primary prevention methods.

¹ Perry J. Pickhardt, M.D., J. Richard Choi, Sc.D., M.D., Inku Hwang, M.D., James A. Butler, M.D., Michael L. Puckett, M.D., Hans A. Hildebrandt, M.D., Roy K. Wong, M.D., Pamela A. Nugent, M.D., Pauline A. Mysliwiec, M.D., M.P.H., and William R. Schindler, D.O.. Computed Tomographic Virtual Colonoscopy to Screen for Colorectal Neoplasia in Asymptomatic Adults. New England Journal of Medicine Volume 349:2191-2200. Number 23

² Greenland P, LaBree L, Azen SP, Doherty TM, Detrano RC. Coronary artery calcium score combined with Framingham score for risk prediction in asymptomatic individuals. JAMA. 2004 Jan 14; 291(2): 210-5.

Meet the Staff



Audrey Spielmann

M.D., FRCP (C)

Radiologist at Canada
Diagnostic Centres in
Vancouver

Dr. Spielmann is an Assistant Professor at the UBC Department of Radiology. She has recently completed an Abdominal Imaging fellowship at Duke University Medical Center in Durham, NC. Dr. Spielmann has a special interest in body imaging (including Ultrasound, CT and MRI) and Breast MRI.



John Pollock

Technologist

John has been a CT and MRI Technologist at Canada Diagnostic Centres since January 2002. Prior to joining our team, he gained valuable experience in all areas of Radiological Imaging, including the Cardiac Catheterization Lab, at Vancouver General Hospital.

Advanced Breast Imaging - A Case Study

Colleen, a 47-year-old mother of two, was not surprised when a screening mammogram detected a cancer in her right breast. "My older sister had been diagnosed a few years ago, so I knew that I was at risk. Still I was devastated, especially when thinking about my kids."*

Before meeting with the surgeon and oncologist, Colleen's family physician discussed treatment options with her. "My first reaction was to have a bilateral mastectomy because of my family history and young children", Colleen recalls. One of the biggest concerns was that, although mammography is the best way to detect early breast cancer, it can underestimate the extent of disease.

This concern grew when an ultrasound-guided biopsy diagnosed Colleen's cancer as lobular carcinoma. 10% of women with lobular carcinoma have a second or third unsuspected cancer at the time of their diagnosis, often in the opposite breast. These additional cancers can be invisible on mammograms and ultrasound.

Enter Advanced Breast Imaging with MRI. MRI creates detailed images of both breasts as well as the deep lymph nodes and the chest wall. It is widely used in Europe and the United States before surgery to determine the exact size of a breast tumor and to diagnose multiple or bilateral cancers.

Breast MRI is a powerful tool for cancer patients, but who will benefit most from it?

An emerging consensus among physicians is that a Breast MRI should be considered in these situations:

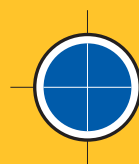
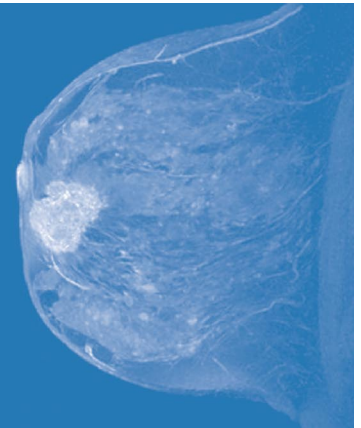
1. Pre-operative assessment of women with newly diagnosed breast cancer.
2. Close or positive surgical margins
3. Patients with lobular carcinomas
4. Suspected recurrences of breast cancer.
5. Patients to be treated with neoadjuvant chemotherapy
6. Suspected multiple or bilateral breast cancers.
7. Occult Breast Cancers
8. Assessment of the integrity of silicone implants.

One of breast MRI's biggest strengths is its ability to exclude malignancy with a negative predictive value of approximately 95%. In Colleen's case, her MRI confirmed that the cancer was confined to the one area in her right breast. "Being told my cancer had not spread was just about the best news I've ever received. I was able to go through my treatment with much more confidence that I've made the right decisions for me and my family".

*not her real name.

Dr. Ian Gardiner is certified by the American Board of Radiology and is a screener for SMPBC. He supplemented his specialist training with a Fellowship at the University of Toronto, focusing on breast and body imaging. Dr. Gardiner is a Fellow of the Royal College of Physicians and Surgeons and the Director of Breast Imaging Education in the Faculty of Medicine at UBC.

"One of breast MRI's biggest strengths is its ability to exclude malignancy with a negative predictive value of approximately 95%."



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