Image courtesy of Joseph T. Ferrucci, MD

CTC IS HOT . . .

AND IS ABOUT TO GET HOTTER

Health care is about the latest development — the latest in technology, a new technique for diagnosis, or an innovative treatment method — and radiology is among the most eventful specialties when it comes to staying up-to-date on the most recent trends in practice methodology.

However, many treatments are in place for years before they catch the attention of the profession, as well as government and third-party payers and the general public, and become a focal point for radiologists and their practices. Such is the case now with computed tomography colonography (CTC) or virtual colonoscopy.

While the knowledge has been around for about 10 years, only in the last couple of years has the modality moved into the radiologic spotlight with new clinical trials demonstrating its efficacy. Coupled with a heightened public awareness of the threat of colorectal cancer, CTC has received more attention of late. As opposed to the accepted colorectal cancer screening procedure, CTC is less invasive, quicker, cheaper and, more important, at least as effective, making the procedure ideal for asymptomatic adults.

"There is a large, unmet need for colorectal cancer screening," said Michael M. Zalis of Massachusetts General Hospital. "Until now CTC has suffered from limited availability and acceptability.

"Now CTC is ready for prime time."

Yet, the procedure still is not reimbursed by Medicare and other third-party payers, a major hurdle to its widespread application and its acceptance by providers and patients alike. (A new piece of legislation, H.R. 4879, the Virtual Screening for Cancer Act of 2007, was introduced in the House of Representatives on Dec. 19 by Rep. Barbara Cubin, a Wyoming Republican. It would provide Medicare coverage for CTC. For more details on the legislation, please see the sidebar article on page 7.)

However, many of radiology's leading CTC proponents assert that the reimbursement tide is turning and the modality will quickly transition from a research tool

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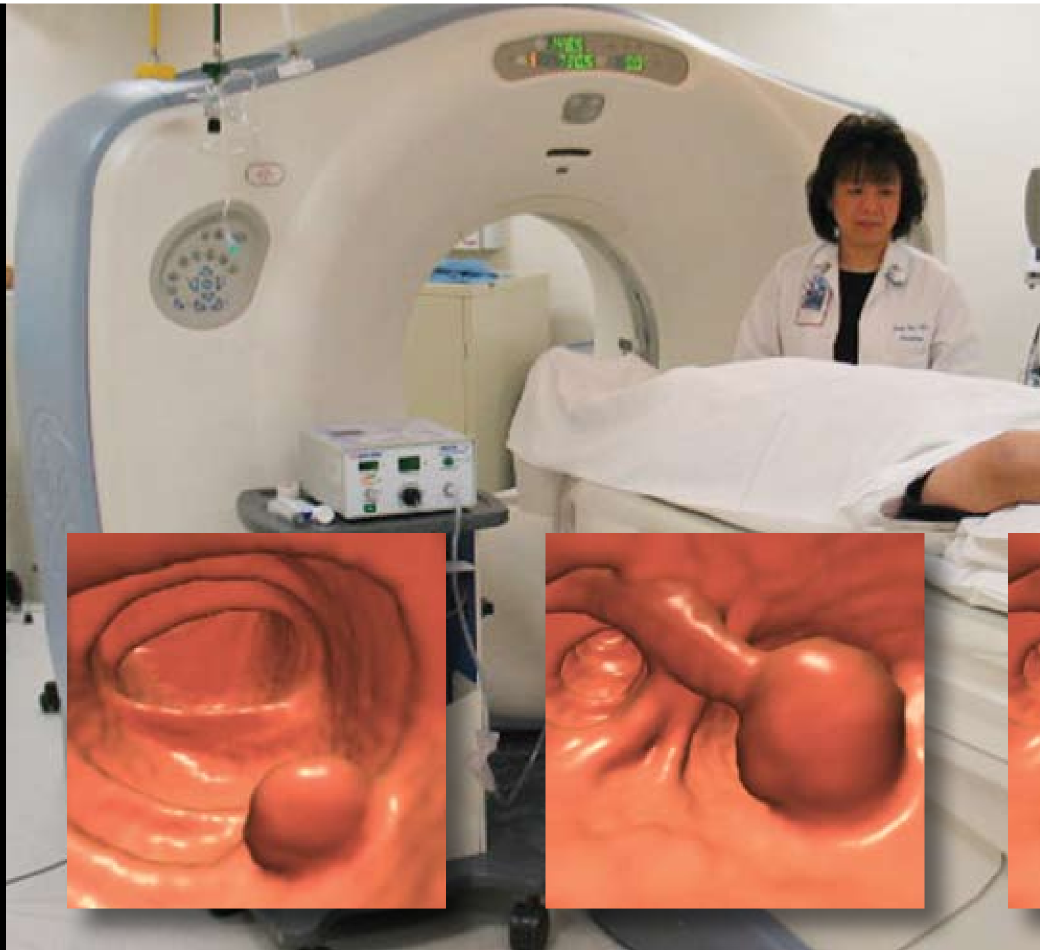
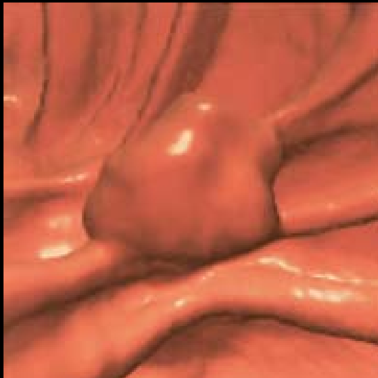
CTC in the *AJR*

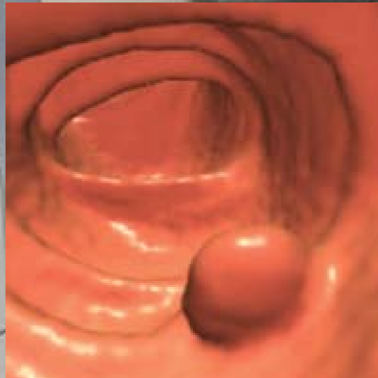
Want to know more about CT colonography? Here are several recent articles published in the *American Journal of Roentgenology* that provide insight into critical aspects of the procedure.

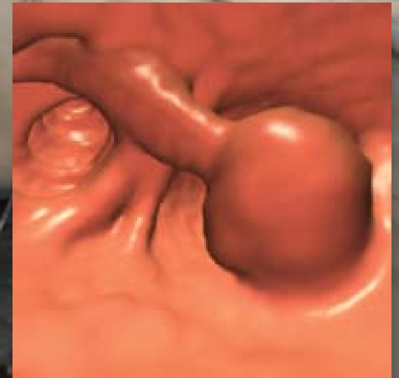
- CT Colonography for Incomplete or Contraindicated Optical Colonoscopy in Older Patients. Jan 2008; 190:145–150
- Small and Diminuitive Polyps Detected at Screening CT Colonography: A Decision Analysis for Referral to Colonoscopy. Jan 2008; 190:136–144
- Primary 2D Versus Primary 3D Polyp Detection at Screening CT Colonography. Dec 2007; 189:1451–1456
- Anatomic Factors Predictive of Incomplete Colonoscopy Based on Findings at CT Colonography. Oct 2007; 189:774–779
- CT Colonography for Follow-Up After Surgery for Colorectal Cancer. Aug 2007; 189:283–289
- Colorectal Polyps on Portal Phase Contrast-Enhanced CT Colonography: Lesion Attenuation and Distinction from Tagged Feces. Jul 2007; 189:35–40
- Patient-Controlled Room Air Insufflation Versus Automated Carbon Dioxide Delivery for CT Colonography. Jun 2006; 186:1491–1496
- Flat Colorectal Neoplasms: Definition, Importance, and Visualization on CT Colonography. Apr 2007; 188:953–959
- Occult Colorectal Polyps on CT Colonography: Implications for Surveillance. May 2006; 186:1380–1383
- Extracolonic Findings Identified in Asymptomatic Adults at Screening CT Colonography. Mar 2006; 186:718–728

Images courtesy of Joseph T. Ferrucci, Perry J. Pickhardt, and Judy Yee.









CTC Experts to Share Their Knowledge at ARRS Annual Meeting

Three of radiology's recognized experts in CT colonography are scheduled to address attendees of the ARRS Annual Meeting on April 14 in Washington, D.C. The speakers, Perry J. Pickhardt, Judy Yee, and Michael M. Zalis, will cover:

- CT Colonography in 2008: Tips on Reporting and Reimbursement
- What's the Significance of Polyp Size?
- Noncathartic CTC—Yes or No?

For more information on this and other sessions at the 2008 ARRS Annual Meeting, please visit www.arrs.org.

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with limited diagnostic application to a hot new ticket in diagnostic radiology that will have a significant influence on radiologic care in the years to come.

"The future of CTC is very bright," said Perry J. Pickhardt of the University of Wisconsin Medical School and one of CTC's leading advocates. "Everything in radiology has a shelf life, but CTC is not a fad procedure; it's the most promising screening tool ready for clinical use."

Pickhardt noted the high positive predictive value and a lower false-positive rate as key factors in the importance of CTC to radiologic practices.

Each of the doctors interviewed agreed that CTC offers patients an experience that is not unpleasant or disagreeable. In fact, the examination, which is far less invasive than the traditional screening method, typically lasts about 10 minutes without the use of sedatives. For years, many patients who could benefit from colon screening have avoided the procedure for a number of reasons, specifically the discomfort factor associated with the examination.

"There have been a lot of changes in CTC technology in recent years, primarily in the areas of CT capabilities and computer software" said Judy Yee of the University of California, San Francisco. "Now we're ready to bring this new technology to the general public as a valid screening tool."

"That is no longer an excuse for not undergoing a simple procedure that could, in fact, save your life," Pickhardt underscored. "Colon cancer is a serious health issue in this country and CTC provides us the best opportunity in years to ensure that those patients who can benefit most can be screened in a brief, effortless, and more cost-effective manner."

And, with colorectal cancer the third leading cause of cancer death in the United States, widespread recognition and reimbursement for the procedure could open up a

new avenue of patient care.

"Gaining reimbursement is very difficult," Yee noted, "especially since the technology had reached a plateau. Now, with new studies validating the technique, and the American Cancer Society and National Cancer Institute taking a more favorable view of CTC as a valid testing measure, I think the payers are beginning to accept CTC as an effectual screening method."

In fact, Yee confidently predicted that CTC will gain Medicare approval within the next year or two, breaking down the final significant barrier to its widespread acceptance among third-party payers. More important, Zalis pointed out, Medicare reimbursement would open CTC up to a potential patient pool of between 30 and 50 million who could potentially benefit from the procedure.

"Medicare coverage for CTC would almost certainly lead to widespread reimbursement by other third-party payers," Pickhardt said.

Begin Preparing Now

Once CTC wins Medicare and third-party payer approval, experts predict many patients will be anxious to know more about the technique, prompted by the media attention on the dangers of colorectal cancer. Consequently, radiologists and practices interested in adding CTC to their services should begin preparing now rather than waiting for official reimbursement approval.

"We have to be ready," Yee advised. "The key is to start learning the procedure now rather than wait until it's hot. There is an aging patient population ready for this screening tool and the floodgates are going to open once it gains Medicare's blessing."

Preparing for CTC, by the radiologist or by the practice, is not a time-consuming or financially draining process, Pickhardt said. In fact, with a little planning and foresight, radiologists and practices can quickly position themselves to better serve their patients.

"Assuming MDCT scanners are already in place, the capital investment for a radiology practice is minimal," Pickhardt noted. "Dedicated CTC software and a carbon dioxide insufflation system are the primary additional components that will need to be considered."

Zalis suggested that any facility with a 16-slice or greater CT scanner should be ready to go once the staff has been properly trained in CTC. However, he added, an 8-slice machine is "doable."

As for radiologists, Pickhardt stressed that formal CTC training and hands-on practice specific to the software system used in the procedure is critical, but not difficult. In fact, he said, there are a number of excellent one- and two-day CTC training courses offered at sites around the country.

As with so many other areas of health care, the issue of turf battles will likely arise as CTC gains wider acceptance in the health care marketplace. However, Pickhardt insisted that radiologists will be the key players in the field.

"CTC screening will be largely radiology-driven, although some non-radiologists may aspire to quality interpretation," Pickhardt noted. "The key here is quality. CTC is an excellent tool in good hands, but a poor one if all facets of the test are not properly addressed."

Pickhardt said those facets include bowel preparation, colonic distention, MDCT scanning, and, of course, CTC image interpretation.

"We need to be sure that we establish a relationship with clinicians regarding CTC and ensure that we maintain high standards of patient care," Yee said.

While the future of CTC as a widely accepted screening measure is not yet guaranteed, most of the experts are confident it is only a matter of time before it becomes a radiologic practice standard. ■

Legislation Introduced to Provide for Medicare Coverage for CTC

Medicare coverage for CT colonography (CTC) took a significant step Dec. 19 with the introduction of H.R. 4879, the Virtual Screening for Cancer Act (VSCA) of 2007. The legislation was introduced by Rep. Barbara Cubin (R-Wyo.).

"Americans are incredibly fortunate to live in a time where advancements in technology give us the ability to detect diseases, improve treatment options, and save lives, all by taking pictures of the human body," Cubin said in a press release announcing the legislation. "Virtual colonoscopies are at the forefront of this transformation in modern medicine and I believe it is critical that Medicare beneficiaries across the country have access to this exam."

The introduction of the VSCA legislation has enthusiastic support among radiologists.

"If passed, this legislation will likely prove to be the pivotal event for screening CTC," said Perry J. Pickhardt, one of the nation's leading proponents of CTC who worked closely with Cubin in drafting the legislation. "As such, CTC for asymptomatic screening would then make the final transition from an investigational tool to a bona fide front-line screening option."

In addition to including CTC as a reimbursable procedure under Medicare, the legislation would include the exam as part of the "Welcome to Medicare" program. This would allow Medicare beneficiaries to have their co-pays for CTCs waived if the exam is performed within the first six months of their enrollment in Medicare, as is currently the practice for colonoscopies and mammograms.

"The proposed bill is very important and shows not only the increasing recognition of the need for improved colorectal cancer screening in the United States, but the need to enable the screening to take place by calling for Medicare reimbursement of CTC," said Judy Yee. "Legislative efforts such as this, in conjunction with regulatory efforts, will increase public awareness and support further reimbursement for CTC."

To read Cubin's press release on the introduction of the VSCA legislation, please visit http://www.house.gov/apps/list/press/wy00_cubin/vsca07.html.