

RSNA 2005 B-roll

Feed Coordinates

Monday, Nov. 28, 2005

11:00 AM to 11:15 AM ET

IA 6 Transponder 15, (C-Band) Downlink Frequency: 4000 Vertical

Monday, Nov. 28, 2005

1:00 PM to 1:15 PM ET

IA 6 Transponder 11, (C-BAND) Downlink Frequency: 3920 Vertical

Script

Slate:

RSNA 2005 logo

Slate:

Advances in Radiology B-roll provided by the Radiological Society of North America (RSNA) to illustrate press conferences presented Nov. 28 – 30 at the 2005 RSNA Scientific Assembly and Annual Meeting in Chicago.

Slate:

Radiologists and allied professionals are gathering in Chicago this week for the 91st Scientific Assembly and Annual Meeting of the Radiological Society of North America (RSNA).

An education and scientific forum featuring more than 3,000 scientific presentations and education exhibits and more than 700 technical exhibits, RSNA is the world's largest medical meeting.

(Image of McCormick Place in Chicago)

(Image(s) of clusters of attendees)

(Image(s) of meeting sessions and exhibits)

Slate:

This B-roll contains seven segments.

Stations are free to use these visuals according to the embargo dates and times for each segment. All times are Eastern Time zone.

Preceding each segment is a written description of its content.

Slate:

To schedule interviews with study presenters or for additional information, call Maureen Morley or Heather Babiari in the RSNA Newsroom 312-949-3233 from Nov. 26 - Dec. 1.

After Dec. 1, Call: 630-590-RSNA (7762)

News releases and abstracts are posted at www.rsna.org/press05

Slate:

Segment 1

“New Technology May Help Radiologists Find More Breast Cancers”

Embargoed for release at 11 a.m. EST, Monday, Nov. 28

Slate:

Digital tomosynthesis shows promise over conventional film mammography as a more specific breast screening technique and a more accurate diagnostic technology, according to a study presented today at the annual meeting of the Radiological Society of North America (RSNA).

Slate:

“The results of our preliminary trial suggest that tomosynthesis may decrease false-positive screening mammography findings by half, thereby reducing the number of women who are recalled after screening mammography for a second, more thorough exam,” said lead author Steven Poplack, M.D., Dartmouth Hitchcock Medical Center/Dartmouth Medical School in Lebanon, N.H.

Slate:

A patient’s experience is much the same for tomosynthesis as it is for a standard mammography exam. Tomosynthesis obtains digital data that can be manipulated and displayed in a variety of ways, including paging through or cine display of thin (one millimeter) sections or slices of breast tissue, which eliminates the problem of overlying tissue that might be mistaken for lesions or that may hide small cancers.

Slate:

To evaluate the role of tomosynthesis in breast cancer screening and diagnosis, Dr. Poplack and colleagues studied 98 women who were recalled for diagnostic imaging following abnormal screening mammograms. The initial screening mammography exams showed 112 findings in the women.

Slate:

When the researchers compared the exams and took into account findings seen with tomosynthesis only, they found that approximately 40 percent of the patients would not have been recalled had they originally been screened using tomosynthesis. As a diagnostic imaging technique for follow-up of a potential abnormality in the breast, tomosynthesis was as good if not better than diagnostic mammography in 88 percent of patients.

Slate:

The following visuals show:

1. Soundbites: Steven Poplack, M.D., co-director, Breast Imaging Center, Dartmouth Hitchcock Medical Center and associate professor, Dartmouth Medical School, Lebanon, N.H.
2. Footage of patient undergoing digital mammography procedure
3. Footage of a radiologic technologist reviewing digital mammography images during procedure
4. Footage of radiologist, Dr. Poplack, reviewing digital mammograms

5. Clinical tomosynthesis images of patients' breasts

Slate:

Segment 2

“Virtual Colonoscopy Performance Enhanced by Computer-Aided Detection”

Embargoed for release at 11:30 a.m. EST, Monday, Nov. 28

Slate:

Computed tomography (CT) colonography with computer-aided detection (CAD) is highly effective for finding colon polyps, according to a large-scale, multi-center study conducted by the National Institutes of Health (NIH) and presented today at the annual meeting of the Radiological Society of North America (RSNA).

Slate:

CT colonography, commonly called virtual colonoscopy, is a minimally invasive exam that physicians hope will encourage more people to be screened for colon cancer. Virtual colonoscopy is desirable because there is no risk of bleeding or colon perforation and intravenous sedation is unnecessary. The procedure is less costly than conventional colonoscopy and more convenient, taking 15 minutes or less.

Slate:

“The performance of virtual colonoscopy continues to improve, and the exam will become a colorectal cancer screening method more patients and doctors will find acceptable,” said the study’s senior investigator Ronald M. Summers, M.D., Ph.D., NIH clinical center in Bethesda, Md.

Slate:

Dr. Summers and colleagues studied 792 patients at three medical centers using virtual colonoscopy with CAD to detect adenomatous colon polyps eight millimeters (mm) and larger. Colon polyps are benign growths that may develop into colon cancer if not removed.

Slate:

CT colonography produces 600 to 1,000 images per patient. Dr. Summers likened the interpretation process to the “needle in a haystack problem.” With CAD technology, after the radiologist has interpreted the images, the computer acts as a second set of eyes, reviewing the images and marking abnormalities for the radiologist to review. CAD has the potential to find polyps that a radiologist might miss.

Slate:

The following images show:

1. Footage of a patient undergoing a CT procedure
2. CT colonography fly-through images of a patient’s colon using CAD to mark abnormalities

Slate:

Segment 3

“Carotid Artery Stenting Improves Thought Process”

Embargoed for release at 12:00 p.m. EST, Monday, Nov. 28

Slate:

Stenting of an occluded carotid artery significantly improves cognitive speed and may improve memory function in some patients, according to research presented today at the annual meeting of the Radiological Society of North America (RSNA).

Slate:

“To my knowledge this is the first study combining neuropsychological testing and perfusion imaging that screens for silent ischemic stroke events that can occur during stenting,” said Iris Q. Grunwald, M.D., Saarland University Clinic in Homburg, Germany.

Slate:

Stroke is the third leading cause of death in the United States. Every year, approximately 600,000 Americans experience a stroke, one-quarter of which are caused by carotid arterial occlusive disease, or a narrowing of the carotid arteries. Until recently, surgery was the standard treatment for this disease, but carotid artery stenting has emerged as an accepted minimally invasive alternative to restore blood flow to the brain.

Slate:

To perform the procedure, an interventional radiologist inserts a long catheter into a tiny incision in the common femoral artery in the leg. Using an image-guidance system such as computed tomography (CT) and a guide wire, the radiologist positions the sheath at the site of the narrowing, or stenosis, in the carotid artery, expands the artery with a balloon and inserts a stent to hold the artery open.

Slate:

The results showed that cognitive speed increased significantly after stenting, regardless of the patient’s age or the severity of the stenosis. In addition, the researchers found a correlation between the degree of vessel stenosis and perfusion deficit, or decreased blood flow, in the brain area on the side of the stenosis. Increasing the blood flow by stenting resulted in an increase in memory function in patients with perfusion deficit.

Slate:

The following visuals show:

1. Demonstration of a stent outside the body showing how its size can be increased to hold vessels open
2. An interventional radiology (IR) team in the IR suite during a carotid stenting procedure
3. Clinical images showing the stent being placed in a patient’s carotid artery, restoring blood flow to the brain

Slate:

Segment 4

“Internet May Be Answer to Mammography Crisis”

Embargoed for release at 10:30 a.m. EST, Tuesday, Nov. 29

Slate:

Digital mammography images can be accurately transmitted over broadband Internet, according to a study presented today at the annual meeting of the Radiological Society of North America (RSNA).

Slate:

“We’ve proven that telemammography works,” said the study’s lead author, Alan R. Melton, M.D., New York Presbyterian Hospital-Columbia University Medical Center in New York City. “The ability to transmit mammograms over long distances could significantly help to solve the crisis in access to screening mammography, as well as improve the accuracy of interpretation of the examinations.”

Slate:

According to a 2004 report from the Institute of Medicine, women’s access to breast cancer screening is endangered due to a shortage of specialists in breast imaging and interpretation.

Slate:

Between 2000 and 2003, the number of mammography facilities operating in the United States dropped from 9,400 to 8,600 (an 8.5 percent decrease), causing women in some areas delays of up to five months for screening mammography services. One cause of the shortage has been the historically low level of reimbursement for mammography interpretation and the high level of medico-legal risk.

Slate:

Dr. Melton’s study, which included 1,314 diagnostic screening mammograms, determined that it is possible to transmit full-field digital mammography (FFDM) images to another location for interpretation without compromising accuracy, security or the use of computer-aided detection software.

Slate:

“These results suggest that regional interpretation centers could be established to improve the accuracy and efficiency of screening mammography, reduce screening backlogs and aid underserved areas,” Dr. Melton said.

Slate:

The following visuals show:

1. Footage of a patient undergoing mammography.
2. Footage of a radiologist reviewing digital mammography images

Slate:

Segment 5

“No Sweat’ CT-Guided Injection Treats Embarrassing Hand Condition”

Embargoed for release at 11:30 a.m. EST, Tuesday, Nov. 29

Slate:

A minimally invasive procedure can permanently cure people who suffer from “sweaty hands,” according to a study presented today at the annual meeting of the Radiological Society of North America (RSNA).

Slate:

Computed tomography (CT) fluoroscopy allows precise needle guidance in the treatment of palmar hyperhidrosis, or sweaty hands, minimizing risk and discomfort to the patient.

Slate:

“This CT-guided percutaneous technique is the most secure treatment today and stops sweating from the hands to the armpits with very little chance of recurrence,” said the study’s lead author, Hugues Brat, M.D., Centre Hospitalier Hornu - Frameries, Hornu, Belgium.

Slate:

Up to three out of every 100 people in the United States faces social and professional discomfort due to sweaty hands. The condition is caused by an overactivity of the sympathetic nervous system. Previously, the only known permanent treatments for sweaty hands were thoracic conventional or endoscopic surgical sympathectomies requiring general or local anesthesia.

Slate:

For this procedure, interventional radiologists make a single needle puncture through the upper back and, using CT guidance, inject a phenol-based medication that interrupts the nerve tracts and nodes that transmit signals to the sweat glands.

Slate:

The following visuals show:

1. Footage of an interventional radiologist performing the minimally invasive procedure via a needle puncture through the upper back
2. CT fluoroscopy images showing the needle insertion and injection of the medication

Slate:

Segment 6

“HRCT Reveals Asthmatic Risk Long After Cat Allergen Exposure”

Embargoed for release at 12:00 p.m. EST, Tuesday, Nov. 29

Slate:

For the first time, researchers have shown that cat allergens can impair lung function in people with asthma for up to 22 hours after exposure. The study was presented today at the annual meeting of the Radiological Society of North America (RSNA).

Slate:

Exposure to cat allergen is very common and can contribute significantly to morbidity in the 15 million Americans with asthma. In many cases, the lung changes triggered by

allergen exposure do not produce symptoms but contribute to persistent inflammation in the small airways that, if untreated, could lead to subsequent severe asthma attacks.

Slate:

“Twenty-two hours after exposure, patients appeared to have otherwise recovered from respiratory symptoms according to clinical measures,” said lead author Jared W. Allen, Ph.D., David Geffen School of Medicine, University of California, Los Angeles.

“However, HRCT still showed significant air trapping, suggesting that constriction and inflammation of the small airways remain long after initial exposure.”

Slate:

The prolonged inflammatory lung reaction is both clinically silent and poorly detectable with conventional pulmonary function tests. However, Dr. Allen and colleagues have developed a new high-resolution computed tomography (HRCT) technique that examines the function of small airways deep in the lungs to reveal the extent of impairment.

Slate:

Dr. Allen recommends that physicians be made aware of the importance of small airways in asthma, as it is difficult to reach these regions of the lung with conventional inhalers. He underscores the importance of developing inhaler devices and oral anti-inflammatory drugs that are capable of generating extra-fine particles to reach the small airways and suppress inflammation deep in the lung.

Slate:

The following visuals show:

1. Footage of a radiologic technologist preparing a patient for a CT procedure and then performing the exam from the control panel
2. 3-D CT rotation of the respiratory system
3. CT image of the small airways of the lung
4. 3-D CT fly-through of the respiratory system

Slate:

Segment 7

“Noninvasive Ultrasound Treatment Shrinks Fibroids”

Embargoed for release at 10:45 a.m. EST, Wednesday, Nov. 30

Slate:

A totally noninvasive procedure using high-intensity ultrasound waves to heat and destroy uterine fibroid tissue significantly relieves fibroid-related symptoms in women, according to the results of a multicenter clinical trial presented today at the annual meeting of the Radiological Society of North America (RSNA)

Slate:

Magnetic resonance-guided, focused ultrasound surgery (MRgFUS) allows radiologists to precisely target fibroids without harming healthy surrounding tissue.

“This treatment immediately stops blood flow in the fibroid tissue, which results in a significant, sustained decrease in symptoms for up to 12 months,” said the study’s lead

author, Fiona M. Fennessy, M.D., Ph.D., Harvard Medical School and Brigham and Women's Hospital, Boston.

Slate:

Uterine fibroids are benign growths of the muscle inside the uterus. According to the National Institutes of Health, at least 25 percent of women in the United States age 25 to 50 suffer from uterine fibroids, and as many as 50 percent of African American women have uterine fibroids.

Slate:

Symptoms can include excessive menstrual bleeding, enlarged uterine size, frequent urination, pelvic pressure or pain and infertility. The absolute treatment for symptomatic fibroids is hysterectomy, which is the complete removal of the uterus. According to the National Women's Health Information Center, fibroids are the primary reason for hysterectomy, accounting for 175,000, or approximately one-third, of hysterectomies performed annually in the United States.

Slate:

"Hysterectomy is currently the gold standard of therapy for uterine fibroids," Dr. Fennessy said. "However, women are increasingly seeking minimally invasive or noninvasive alternatives to hysterectomy."

Slate:

The following visuals show:

1. Uterine fibroid patient undergoing MR imaging
2. View from control room with MRgFUS images on the screen
3. MRgFUS images of treatment planning
4. Animation of MRgFUS treatment

Slate:

Portions of this footage were filmed at or provided by:

Northwestern Memorial Hospital, Chicago

The University of Chicago Hospitals

Hologic, Inc.

GE Medical Systems

InSightec

Final Slate:

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