Multi-Slice Scanner

By Charles Mazzarese, L.R.T.
TH Medical Radiographer/Assistant Director

The year of 2003 will be an exciting one for the Cat Scan Department. The purchase of three new General Electric multi-slice CT scanners will enable us to venture into cutting edge technology, allowing for superior patient care and diagnosis (Figures 1a and 1b). The Emergency Room CT scanner was the first to be replaced, and installation of the other scanners will follow shortly.

The CT scanner is a unique light speed plus computed tomography system with a user interface, built-in protocols and sophisticated post processing capabilities, which reduces total patient exam time. The unit enables single-technologist operation and greater department productivity.

The multi-slice scanner uses 20%-30% less Ma to acquire the data resulting in fewer tube cooling delays and more efficient use of the x-ray tube. Long continuous scans are increasingly important in CT angiography and trauma studies where tube cooling limitations cannot be tolerated. With the multi-slice system, we can acquire thinner slices for better image quality while keeping throughput at an optimal level. Due to the speed of the system and fast acquisition time, many studies (Figure 2) can be performed in a single breath hold, reducing motion artifact especially in uncooperative patients. One of the major benefits of multi-slice scanners is the ability to reconstruct multiple slice thicknesses from one data acquisition. The addition of these scanners allows us to accurately post process the data sets for superb 3D (Figure 3) analysis. Upon completion of this project, we will be providing state-of-the-art imaging to our patients and their referring physicians.
A Fond Farewell

We all wish Jerri Christiano a happy and healthy retirement. Jerri worked in the department for over 22 years and took on the position of Residency Coordinator since the inception of the Program in 1981. Jerri and her husband, Pete, are enjoying the sun at their new location in Hilton Head, South Carolina.

Managed Care Update

Aetna Healthcare
Aetna US Healthcare
American Medical & Life
APA Partners
(formerly HHS)
BCE emerges
(formerly Up and Up)
Beech Street
BC/BS Managed Care Network
(HealthChoice, Child Health Plus, Empire Fed Emp, Empire Deluxe, Blue Choice Sr. Plan)
Cambridge
CIGNA
(HMO, Open Access PPO)
First Health
GHI
(HMO, PPO (Flex Select)
HealthFirst
(HMO, 1199, Medicaid, Child Health Plus, Family Health Plus, Health First NY)
HIP
(HMO, Heritage, Hip Access, VIP, Prime, Medicaid, Child Health Plus, DCN)
Horizon
(HMO, Vista, Vista Plus, PPO, Standard, Standard Plus)
Island Group Administrators
J.J. Newman
Local 1199 National Benefits Fund
(Members Choice)
Magna Care
MDNY
(Select, Direct HMO/POS, Classic HMO/POS, Focus/Flex)
Medichoice
Metropolitan Empire
Multiplan
Oxford
( liberty and Freedom)
Sierra
Suffolk Health Plan
United Healthcare
US Healthcare
USI
(formerly Select Pro)
Vytra Healthcare
(ISMO, Suffolk County, East End Health Plan, Direct Access
HMO, Central Suffolk Hospital, Southampton Hospital, Southside Hospital, Smart Start Neighborhood Network Plan, Suffolk Employees School Health Plan)
New Faculty

Steven Perlmutter, M.D., F.A.C.R. joined the faculty as an Assistant Professor of Diagnostic Radiology in the Division of Diagnostic Radiology and Cross-sectional Imaging and is Director of the Radiology Residency Program. Dr. Perlmutter received his medical degree from the State University of New York Downstate Medical Center, followed by a Medical internship at the State University Hospital and Kings County Hospitals. A Nuclear Medicine residency followed his Diagnostic Radiology residency at New York Hospital-Cornell University Medical Center & Memorial Sloan-Kettering Cancer Center at New York Hospital-Cornell University Medical Center. He was an attending radiologist and Chief of Ultrasound at Brookhaven Memorial Hospital for 13 years and then he moved to Winthrop-University Hospital for 11 years. There he was Chief of Ultrasound and Chief of Genitourinary Radiology and has served as Acting Director of Breast Imaging. Dr. Perlmutter is Board Certified in Diagnostic Radiology and Nuclear Medicine. He is a former President of the Long Island Radiological Society and the immediate Past-President of the New York State Radiological Society. Dr. Perlmutter is Chairman of the American College of Radiology’s Committee of the Chapters, Vice-Chairman of the Medical Society of the State of New York’s Health Care Delivery Systems and Medicaid Committee and Chairman of Suffolk County Medical Society’s Workers Compensation Committee. He earned “Teacher-of-the-Year” awards at Brookhaven Memorial Hospital and from the Radiology Department at Winthrop-University Hospital.

Elaine S. Gould, M.D. joined the faculty as an Associate Professor of Radiology in the Section of Musculoskeletal Radiology and is Chief of Musculoskeletal Radiology. Dr. Gould received her medical degree from the State University of New York Downstate Medical Center, followed by a Medical internship and a first year Diagnostic Radiology residency at Winthrop University Hospital in Mineola, New York. She completed her last three years of Diagnostic Radiology residency at the State University of New York at Stony Brook at which time she was Chief Resident during the last two years. Dr. Gould did a Skeletal Radiology fellowship at The Hospital for Joint Diseases-Orthopaedic Institute in New York, New York. She was an attending radiologist at North Shore University Hospital - Cornell Medical College where she was Physician-in-Charge of the Section of Musculoskeletal-Orthopaedic Radiology. Before coming to Stony Brook, Dr. Gould worked at the Advanced Medical Imaging of Long Island, P.C. She is Board Certified and is a member of the American Association of Women Radiologists, American College of Radiology, American Medical Association, American Roentgen Ray Society, Long Island Radiological Society, Medical Society of the State of New York, Nassau Academy of Medicine, Nassau County Medical Society, New York State Chapter of the American College of Radiology, Radiological Society of North America, Society for Magnetic Resonance Imaging and The International Skeletal Society.

Welcome

Welcome to our new Residency Coordinator Linda Erickson.
Linda is a familiar face to many of us as she previously worked in the Office of Medical Education.

Grand Rounds

Ellen Wolfe, M.D. presented a Grand Rounds on February 11, 2003 on “Imaging of the Biliary Tree and Pancreatic Duct”. Dr. Wolfe is Professor of Clinical Radiology at the Albert Einstein College of Medicine and Vice Chairman of Radiology and Chief of GI at the Montefiore Medical Center in the Bronx, New York.
Celebration of Newly Renovated Medical Imaging Labs

On September 23, 2002, the Department of Radiology celebrated the opening of the newly renovated Medical Imaging Labs with a lecture series, Grand Rounds talk, and party. The labs, located on the 8th floor of the Health Science Center, were started in 1992 when Gene Gindi, Ph.D. (Associate Professor of Radiology and Electrical Engineering) came from Yale University and Jerome Liang, Ph.D. (Professor of Radiology and Computer Science) joined him from Duke University. Since then, the Labs have grown considerably, and now house more than five Postdoctoral Associates and more than ten graduate students. The research covers a wide spectrum in Medical Imaging, i.e. from image formation and processing to visualization. Two examples, both of which have attracted industrial as well as research interest, are virtual colonoscopy for screening of colonic polyps and low-dose computer tomography (CT) for CT screening of heart, lungs, and breast.

Craig Malbon, Ph.D., Vice Dean for Scientific Affairs of the School of Medicine, and Donald Harrington, M.D., Chairman Department of Radiology, initiated the dedication with opening remarks. It was followed by a series of lectures: (1) Medical Imaging Informatics by Jerome Liang, Ph.D. (2) Reconstruction and Image Quality in Nuclear Medicine and CT Mammography by Gene Gindi, Ph.D., (3) PET Imaging Research at Brookhaven National Labs (BNL) by Joanna Fowler, Ph.D., BNL Scientist, (4) Optical Coherence Tomography by Yingtian Pan, Ph.D., Assistant Professor of Biomedical Engineering, (5) Breast Imaging Research by Terry Button, Ph.D., Associate Professor of Radiology, and (6) Interactive Visualization and Colorization of Volumetric Medical Image Data by Klaus Mueller, Ph.D., Assistant Professor of Computer Science. The Grand Rounds talk was then presented by a distinguished researcher/clinician, Michael Vannier, M.D., Professor of Radiology, Iowa University Medical College, and Editor-in-Chief of the IEEE Transactions on Medical Imaging, a number one journal in its field. His talk, entitled Image-Guided Magnetic Surgery, showed some fascinating progress in the use of external magnetic fields to precisely guide magnetically tipped catheters in a variety of medical applications.

After the talks, a grand-opening celebration was held in the newly renovated 8th floor Labs. More than forty colleagues from BNL, Applied Mathematics, Biomedical Engineering, Computer Science, Electrical Engineering, Physics, Radiology and other clinical departments attended the party.
2002 Academic Achievements

ABSTRACTS


EXHIBITS AND PRESENTATIONS
Cora J. Cabahug, M.D.

Harris L. Cohen, M.D.


Badler RL, Katz DS, Lummerman JH, Pollack S, Perlmuttler S, Gittelman AM, Lane MJ. Incidence and Distribution of Renal Pyramidal Calculi on Unenhanced Helical CT in Patients with Suspected Renal Colic. 102nd annual meeting of the American Roentgen Ray Society.  April 28 - May 3, 2002, in Atlanta, GA.


Hsu C, Gold BM, Katz DS, Sussman A, Gittleman AM. Megaureter: A Pseudoseptated Mass. American College of Radiology Chair, Committee of the Chapters, and Alternate Councilor Long Island Radiological Society Member, Executive Committee and Chair, Bylaws Committee Medical Society of the State of New York Vice Chair, Committee on Healthcare Delivery and Medicaid Member, Workers’ Compensation & Occupational Health Committee New York State Radiological Society President New York State Workers’ Compensation Board Workers’ Compensation Advisory Committee Society of Radiologists in Ultrasound Member, External Affairs Committee Suffolk County Medical Society Chair, Workers Compensation Committee and Member, Board of Directors

Clemente T, Roque, M.D. Long Island Radiological Society Secretary and Member, Executive Committee Electronic Education Committee Review of lectures for CME for web.

Robert G. Peyster, M.D. American Society of Neuroradiology Electronic Education Committee

OFFICE OR COMMITTEE ACTIVITY IN SOCIETIES

Harris L. Cohen, M.D.
American Institute of Ultrasound in Medicine AIUM Committee - Council on Sections Co-Chairman, Emergency Ultrasound Section AIUM Committee - Vice Chair, Constitution Committee American Board of Radiology Oral Board Examiner Radiological Society of North America Exhibit Committee - Pediatric Radiology American College of Radiology Expert Panel in Pediatric Imaging Expert Panel in Ultrasound Task Force on Disaster Planning Commission on Ultrasound Committee on Research and Technology Assessment Commission on Education Committee on Education

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Robert G. Peyster, M.D. American Society of Neuroradiology Electronic Education Committee

RADIOLOGY PUBLICATIONS 2002


Gindi G.


Khrud P, Xing Y, Hsiao I and Gindi G. Fast preconditioned conjugate gradient reconstruction for 2D SPECT. Intl Symposium on Nuclear Science and Medical Imaging, Norfolk VA, 2002.


Li T, Wen J, and Liang Z. Compensation for non-stationary detector response in analytical varying focal-length fan-beam SPECT reconstruction. 2002 Conf Record III NSS-MIC in CD-ROM.


Wen J, Li T, and Liang Z. A ray-driven approach to analytical SPECT reconstruction of non-uniform attenuation with variable focal-length fan-beam collimators. 2002 Conf Record IEEE NSS-MIC, in CD-ROM.

Zhao W, Decrescenzo G, Rowlands JA. Investigation of lag and ghosting in amorphous selenium flat-panel detectors. SPIE 4682, 9-20.


Zhao W, Decrescenzo G, Rowlands JA. Investigation of lag and ghosting in amorphous selenium flat-panel detectors. SPIE 4682, 9-20.


Zhao W, Decrescenzo G, Rowlands JA. Investigation of lag and ghosting in amorphous selenium flat-panel detectors. SPIE 4682, 9-20.

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