HealthManagement
Promoting Management and Leadership

Volume 11 - Issue 5, 2011 - Agenda

Congress Review: RSNA 2011

This year's DFth edition of the Radiological Society of North America (RSNA) Scientific Assembly and Annual Meeting both celebrated the continuing drive for innovation and novel ways to provide faster, sharper and safer medical imaging exams, as well as reminding its audience that in the face of anticipated and hotly debated cuts to the health system in the United States, belt tightening looms large.

Health Management on the Agenda

This year saw a growing focus on topics such as Health Policy Management, Quality Assurance and Quality Improvement, and Professionalism, and offered sessions that drew wisdom from experienced radiologists from an international spectrum that shared their practical management experience with the audience. More and more, attention is sharpening on these extra-clinical leadershiprelated roles, and residents and young radiologists are being encouraged in particular to devote some of their training to management related activities. Leaders of radiology departments urged the younger generation to remember that radiology is a vibrant, exciting profession, and that with an investment in extra curriculum activities ranging from social gatherings, to committee work and a general proactive attitude in this respect, that the sky's the limit for their careers, negative reports of potential cuts in residency programmes and to reimbursement at large notwithstanding. The message is clear: opportunities in radiology have never been better and it continues to attract a high level of intelligent and competent professionals.
Best practice was another hot topic at this year's congress: topics ranged from "Critical Issues Facing the Profession of Radiology", to "Shaping Your Future Practice", and an exciting debate on the differences in recruiting and staff retention between public and private practice stood out as focusing on a presentday job market crisis in radiology.
Technology was certainly not forgotten in the mix of all these exciting practice and clinical based sessions. This year, several companies such as Hologic, Philips, Merge, Siemens, Carestream and GE Healthcare announced new products, new upgrades and technological innovations aimed at improving outcomes and image quality and processing. Below, you can find a summary of the main industry highlights.

RSNA 2011: Celebrate the Image Speech Kicks off Congress

"You know you're under the economic microscope when a CT scanner adorns the cover of a Congressional budget office report," Dr. Drayer said during his President's Address, "Celebrate the Image: How We Changed the Face of Health Care," on Sunday of the RSNA congress.
"In addition to our image interpretation expertise, we're expected to prove comparative effectiveness and carefully oversee dose and utilisation management and work symbiotically with all," said Dr. Drayer, the Dr. Charles M. and Marilyn Newman Professor and chair of the Department of Radiology at The Mount Sinai School of Medicine and executive vicepresident for risk at The Mount Sinai Medical Center in New York City.
But radiologists also have reason to be optimistic, Dr. Drayer added. "I believe that innovative radiologists and clinicians, working collaboratively with physicists and engineers, have spurred corporate innovation and competition to create better, faster and safer images to the benefit of our patients."
There is proven value in medical imaging, said Dr. Drayer, as a physical examination. With almost one billion office visits in the U.S. every year, there is no evidence-based study to even verify the accuracy of abdominal palpation or lung auscultation. "CT is done in a resounding HJ percent of emergency department visits, and it's been the subject of much discussion and many explanations, but maybe it's just good, accurate clinical care," he said.
If radiologists are to continue relying on the diagnostic accuracy of CT, however, they must be strong advocates of dose reduction, Dr. Drayer said. Image acquisition, post-processing techniques and the use of dose registries are among the new ways to lower dose for patients, he said, while the best methods remain "not doing unindicated studies, using decision support and having ready access to prior imaging exams."
With increasing life expectancies comes increased disease burden, and progressively increasing healthcare cost, Dr. Drayer noted. "It seems clear that a key strategy to bend the cost curve of healthcare created by this aging population is to support the research needed to develop innovative new protective technologies and pharmaceuticals," he said, pointing to precise image phenotyping, early detection and prevention using low-dose and more accurate imaging solutions, evidence requirements using statistical predictor models, and more use of biomarkers to quantify therapeutic response, as well as unique new imaging applications.

RSNA 2011: 3D Modeling Offers Hope to Facial Injury Victims

Results of a new study on human face transplantation, led by Darren M. Smith, M.D., plastic surgery resident at the University of Pittsburgh Medical Center (UPMC), were presented during the annual meeting of the Radiological Society of North America (RSNA).
Devastating injuries or defects of the face are extremely challenging, if not impossible, to satisfactorily reconstruct by traditional surgical techniques. In face transplantation, facial tissue from a donor is transferred to reconstruct the defect, restore essential life-sustaining functions—such as breathing, chewing and speaking—and, above all, reestablish normal human appearance.
"This surgery is for patients with devastating injuries to the face, who have lost their ability to smell, eat and engage socially and have no other conventional treatment options," said Vijay S. Gorantla, M.D., Ph.D., administrative medical director of the Reconstructive Transplantation Program at UPMC.
Clearly defining and understanding the complex tissue deficits and defects that accompany devastating facial injuries like electric burns, blast wounds and accidental trauma are critical for both technical success and objective analysis of the return of function after face transplantation.
Medical imaging plays a major role in the entire spectrum of face transplantation, ranging from patient selection, donor and recipient surgical planning, and postoperative assessment of returning motor and sensory function. Face transplantation is a lengthy, complicated procedure that involves reconstruction of multiple tissues—such as skin, muscle, blood vessels, nerves and bone— by a team of surgeons.
Using sophisticated computer modeling software, Drs. Smith and Gorantla, along with Joseph Losee, M.D., integrated information from GD CT, CT angiography, MRI and high-definition tractography to create a GD model of the patient's head and neck anatomy. The same type of modeling technology is often used in movies to animate computer- generated characters with detailed three-dimensional human features and realistic expressions.

Industry Highlights

Swedish university to improve medical education with Sectra's visualisation table

The Faculty of Health Sciences at Linköping University in Sweden has invested in the Sectra Visualisation Table. The faculty will use the table for training and instruction purposes in all of its seven education programmes.
The Sectra Visualisation Table is a large medical multi-touch display, allowing students and medical professionals to interact collaboratively with the life-size GD images generated by CT and MRI scanners. The possibility to work with a virtual body allows for deeper understanding and insight into the anatomy, and functions and processes inside the body. In this manner, Sectra Visualisation Table improves medical education, surgery planning, clinical conferences and virtual autopsies. The table is powered by a tailored Sectra PACS workstation (Picture Archiving and Communication System). Linköping University is renowned as an innovator in medical education.
"With Sectra's Visualisation Table, we will have new opportunities to use medical images in our education and teaching," says Pia Tingström, Head of the Centre for Educational Development and Research at Linköping University. "Integrating advanced clinical imaging technology into our education provides students with a learning tool that will contribute to improved patient safety."

Siemens Unveil Somatom Perspective for CT

At the RSNA, Siemens Healthcare unveiled the Somatom Perspective, a new computed tomography (CT) scanner that is particularly efficient in operation. This scanner is their first to offer eMode functionality, which determines the best correlation between dose, financial efficiency, and image quality and adjusts the required scan parameters automatically. The system's operation can thus be optimised for the individual scan, for example in terms of tube current or scan velocity. This option relieves wear and tear on the CT and increases its life cycle. Special service offerings and even the design of Somatom Perspective are said to help keep down overall operating costs. Being suited to cover all clinical fields, including cardiovascular studies, this CT scanner reportedly allows clinics and practices to extend their range of available examinations even where budgets are tight. With the new scanner, Siemens further extends its portfolio for the middle price segment in the course of the initiative Agenda CLHG. The Somatom Perspective will be available from the second quarter of CLHC.

Philips receives FDA clearance to market its first whole body PET/MR imaging system in the United States

At this year's meeting, Philips announced IHL(k) clearance from the Food and Drug Administration (FDA) for the company's first commercially available whole body positron emission tomography/magnetic resonance (PET/MR) imaging system, the Ingenuity TF PET/MR which was on display at the RSNA this year. This platform will help clinicians and researchers investigate novel personalised medicine and treatments for oncology, cardiology and neurology.
It was previously thought that PET and MR scans were incompatible; however, Philips overcame the enormous technical hurdles, through advances in technology, to create a new class of hybrid imaging that they hope will push the bounds of what's possible in imaging. The system is designed to provide a state-of-the-art platform well into the future by facilitating the addition of new technologies as they become available.
The Ingenuity TF PET/MR delivers increased economic value, as it is a sequential imaging system that has a similar clinical workflow experience to PET/CT, the current benchmark for hybrid imaging. In addition, the system is designed so the patient table rotates between each modality to scan a patient, thus enabling the system to perform both standalone MR and hybrid PET/MR studies. This aims to deliver added flexibility by eliminating the need to invest in multiple scanners while cutting down on throughput time and improving patient comfort since the patient can remain on the same table for both tests.

Merge Healthcare Launch Honeycomb Cloud Service; Shares Skyrocket

During the RSNA, Merge Healthcare announced Merge Honeycomb, a new cloud-based service that will enable users to upload, download, view, and share medical images – at no cost. "With Merge Honeycomb, we're harnessing the cloud in a way that encourages and enables faster collaboration among all healthcare stakeholders, resulting in a true improvement in the delivery of care and reduction of costs," said Jeff Surges, CEO of Merge Healthcare. "
First announced at the Merge Live CLHH Client Conference in October, attended by over ILL healthcare professionals, Merge Honeycomb will be the nation's largest medical imaging sharing network and is open to anyone. It was officially launched at the RSNA prompting a spike in share prices.
Merge Honeycomb aims to reduce the need for duplicative scans, which costs the industry an average of GI billion USD a year and exposes patients to harmful and unnecessary radiation. (According to a CLHL study by the Center for Devices and Radiological Health and the U.S. Food and Drug Administration, the radiation level in one CT scan of the abdomen is approximately the same as JLL chest X-rays.) It also aims to eliminate the archaic practice of using patients as transport vehicles. The need to burn X-rays, CT Scans, MRIs and other images onto CDs will be a thing of the past. When a physician needs to view images, they can log into the image-sharing network via any web browser.

Hologic feature new algorithm for Selenia Dimensions Breast Tomosynthesis System

At this year's RSNA, Hologic featured a new algorithm along with the Company's Selenia Dimensions breast tomosynthesis system, announcing the commercial release of its C-View synthesised CD image reconstruction algorithm that eliminates the need for a conventional CD mammogram as a component of a GD mammography(tomosynthesis breast cancer screening) exam. C-View software is approved for sale throughout the European Economic Area and in other countries recognising the CE Mark.
For users of Hologic's CD plus GD tomosynthesis breast cancer screening system, C-View software creates a CD image from a single tomosynthesis scan and eliminates the need for the acquisition of additional CD exposures. Dr. Stephen Rose, a board certified radiologist with Houston Breast Imaging stated "Hologic's synthesised CD image reconstruction algorithm is very impressive. C-View provides the information contained in a conventional CD mammogram without the need for additional exposures while maintaining the superior clinical performance of Hologic's combo-mode (CD plus GD) imaging."

Published on : Sun, 1 Apr 2012