

# Elevating SPECT to SPECT•CT Boosts Procedures and Referrals

Inha University Hospital's nuclear medicine department replaced its Siemens MULTISPECT 2 SPECT scanner last year with a state-of-the-art Symbia T6 SPECT•CT system, bringing them enhanced clinical performance and improved financial outcomes.

By Justine Cadet

Inha University Hospital, a 900-bed hospital in northwestern South Korea, serves the country's third most populous city with leading-edge medical technology. The hospital currently employs 2,000 people and comprises 34 departments and 11 centers, including disease-specialized centers and clinics.

## SPECT•CT: The Benefits

In 2011, Inha decided to migrate from its 16-year-old Siemens MULTISPECT 2 SPECT-only system to a new Symbia™ T6 SPECT•CT. This state-of-the-art system combines the functional information of SPECT with the anatomical information of CT, to enhance clinical performance, explains In-Young Hyun, MD, of the department of nuclear medicine at Inha University Hospital, and professor of nuclear medicine at Inha University, College of Medicine.

"It was difficult to precisely localize the anatomical position of a lesion using the existing SPECT image diagnosis, which evaluates biochemical changes in the body and functional problems," Hyun says. "As our new Symbia T6 also incorporates the features of a high-resolution CT system, it solves the problem by providing functional and anatomical information simultaneously to the clinician." Inha has met its objectives, experiencing both clinical and economical benefits from the new system.

Clinical impact: SPECT images can now be fused with CT to precisely localize a lesion to add additional diagnostic infor-



Inha University Hospital in the Incheon area of South Korea has seen a boost in referrals and types of studies they can accomplish since migrating to the Siemens Symbia T6 SPECT•CT scanner.

mation and increase the clinical confidence of the referring physician.

Economic impact: Since the installation of the SPECT•CT system, the procedure volume, as well as the variety of procedures, has increased, thereby helping to increase the revenue of the nuclear medicine department and offset the initial cost of the system.

"Although SPECT•CT is useful in a wide variety of clinical conditions, the major applications are for cardiac, bone and thyroid imaging, as well as imaging of lymph nodes and infections," Hyun says. "Due to the addition of the anatomical data in a fused CT image, the new system helps us make important diagnostic decisions." The Symbia T6 system is particularly helpful in clinical areas such as detection of foci of infection, detection of bone metastases, characterization of fractures and joint pathology and metastases from thyroid cancer detected using radioiodine SPECT•CT after surgery for removal of thyroid gland, as well as

localization of draining lymph nodes in patients with breast cancer for metastases evaluation.

The group at Inha says they chose Symbia T6 because of its high performance and image quality. They also cited its user-friendliness and long-term system durability, as well as Siemens' strong reputation for good service and sincere professionalism.

Feedback from the medical staff on the new SPECT•CT has been very positive. "Physicians quickly adopted the technology, as they saw the improved accuracy of the test results," Hyun says. Also, the system has greatly helped Inha diversify its nuclear medicine procedures, resulting in a steady increase in requests from varied clinical departments, which did not previously refer exams to the department.

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