

Radiology Update

Combining Technologies for an Advanced Diagnosis

Queensland X-Ray recently installed an advanced GE Hawkeye 4 at its Southport Practice. This cutting edge technology combines a dual headed Gamma camera with an integrated low dose Computed Tomography (CT) scanner.

This technology offers two major advantages to referring clinicians:

Anatomic Localisation

Bone scans are extremely sensitive in identifying abnormal osteoblastic activity in the skeleton, however the resolution is reduced in comparison to X-ray, CT or MRI. This new technology provides a method of co-registering medical image data from CT or MRI with the metabolic or functional information provided in a nuclear medicine scan using Single-Photon Emission Computed Tomography (SPECT). By doing this, it can accurately localise the site of abnormal radioisotope uptake. This is particularly important in cases involving the cervical, thoracic and lumbar spine, feet and carpal regions. It can also be useful for liver lesions, parathyroid studies and sentinel node studies of the breast.

Attenuation Correction

Soft tissue absorbs gamma rays, creating artifacts, which can lead to degraded images (attenuation). This can, on occasion, be a problem in Myocardial Perfusion Studies, where gamma rays are absorbed by the breasts and the diaphragm. By incorporating CT, the new scanner allows for the correction of attenuation, therefore increasing diagnostic accuracy. The new Hawkeye scanner is a valuable addition to our Southport practice and further enhances the comprehensive and personal nuclear medicine service that Queensland X-Ray has provided the community with for the last two decades.

For further information about the new equipment, our Nuclear Medicine services or to make a booking, please contact our Southport practice on 07 5581 0900.

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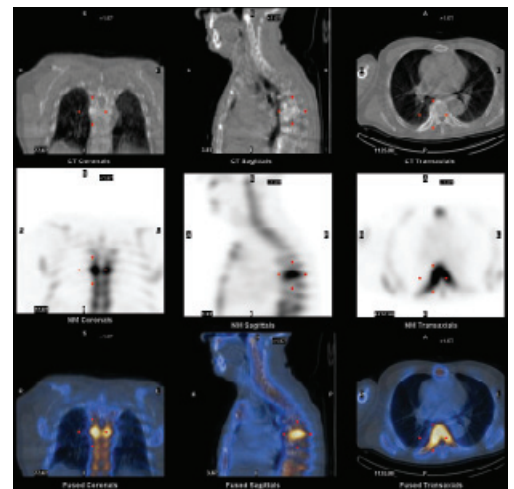


Figure 1 – The co-registration of CT and Bone Scan findings allow for accurate localisation of the abnormality in the thoracic spine.

