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[Medicine] Advanced Testing Benefits Diagnosis and Study of Neuropathic Pain: NTU (Chinese Version) [Medicine] Advanced Testing Benefits Diagnosis and Study of Neuropathic Pain: NTU (Chinese Version)

NTU Highlights (2011/05/31) The NTU College of Medicine and NTU Hospital have established a complete assessment system to better help patients who suffer neuropathic pain. Encompassing advanced pathology, physiology and imaging testing, this system not only yields more accurate diagnoses than traditional approaches, it benefits studies into the causes of neuropathic pain and the devising of effective remedies.

The most commonly observed cause of chronic neuropathic pain is the degeneration of nerve endings that reside in the most outer layer of skin. Therefore, the college and hospital have instituted small dermal biopsy testing for sensory nerve damage to obtain empirical data for diagnosing the pathological states of nerves. The first of its kind in Asia, the system is superior to traditional nerve biopsies. Like minimally invasive procedures, it causes only a light abrasion of the skin yet enables the physician to easily "observe" damage to nerve endings rather than rely solely on the patient's subjective descriptions. For this reason, the international neuroscience community has recognized this testing as a new standard diagnostic tool.

As the nerves of the skin surface convey heat as well as pain, NTU neurologists have also measured heat evoked potentials to establish an atlas of heat evoked potentials for neuropathic pain, thus providing independent physiological evidence for the diagnosis of pain. Besides serving as an effective diagnostic and evaluation tool for patients, this system opens up new directions and opportunities for the neurobiological study of pain by allowing deeper explorations of the relationships between brain structure and function.

Reference: NTU Highlights 2011/05/31
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