仁安醫院
UNION HOSPITAL

Electro-diagnostic Study

Electro-diagnostic studies, provided by Union Hospital include: Nerve Conduction Test (NCT), Evoked Potential Test (EP), Visual Evoked Potentials (VEP), Brain Auditory Evoked Potentials (BAEP) and Needle Electro-Musculography (EMG).

Procedure Preparation

- Please wear loose fitting clothes for the procedure.
- Please wash your hair with shampoo on the day of procedure. No conditioner should be applied after shampoo.
- Wash your hands and feet before the procedure. Some skin moisturizers and body lotions can interfere the test, so please do not use them on the test day.
- Electro-diagnostic studies do not affect cardiac pacemakers and no special arrangements are necessary. However you should inform our medical staff if you have one.
- Unless told otherwise, you can eat, drink and take your medication as usual.

Nerve Conduction Test (NCT)

Nerve conduction test is a medical diagnostic test used to check for various types of neuromuscular conditions, such as weakness, pain and numbness of the limbs, peripheral nerve compression causing muscular atrophy, Carpal Tunnel Syndrome and other nerve and muscular disorders.

NCT identifies the nature and location of the disorders to facilitate formulation of treatment plans. During the test, a very mild electrical impulse is generated to stimulate the nerve through electrode patches attached to the skin. The test is usually painless. However, patient could experience a slight yet harmless electrical shock. The test takes approximately 15 – 30minutes.

Evoked Potential Test (EP)

An Evoked Potential test comprises Brain Auditory Evoked Potentials and Visual Evoked Potentials. It is used to diagnose different disorders of nerve ending, visual nerve, auditory nerve, spinal cord, brain stem and cerebrum etc. Other disorders of the peripheral nervous system and central nervous system can also be diagnosed, examples include optic neuritis, multiple sclerosis, disease of brainstem and thalamic.

Evoked Potential Testing is harmless and painless. Generally it is considered a very safe medical diagnostic test.

Needle Electro-Musculography (EMG)

Needle Electro-Musculography is a test used for evaluating and recording the electrical activity produced by skeletal muscles. It is used for the diagnosis of neurological and neuromuscular problems. A very fine and disposable needle (similar to those used in acupuncture) is inserted through the skin into the muscle tissue. Electrical activity of the muscles, at rest and during contraction, is then observed. An electromyography detects the electrical potential generated by muscle cells when these cells are electrically or neurologically activated.

Procedure

- The body part to be examined is disinfected with alcohol.
- A very fine and disposable needle is inserted through the skin into the muscle tissue. Depth and number of insertion depend on the thickness of the muscle tissue.
- The doctor observes and records the electrical activity of the muscle tissues
- The patient is instructed to relax and contract the muscles under examination. Some discomfort or pain may be experienced. No other harm is produced by the procedure.
- If the patient finds the discomfort or pain unbearable, inform the doctor immediately.
- The test takes 20 – 30 minutes and varies with the number of locations to be examined.

Discharge Advice

The client can go home after the procedure. Test report(s) will be given to the doctor. Questions/queries on the test results can be raised at subsequent consultation appointments.