# **# 1 Common Neurosurgical Tests**

## [in each question is only one correct answer]

Patient does not have dizziness's, does not feel a ring in ears and does not lose hearing, but thus feels aspiration to incline a head to the left, come to light dysarthria, defeat of the left facial nerve, and ataxia the left hand is increased. All these are possible to explain:

- 1. Cerebellar infarction.
- 2. Hemorrhage in a cerebellum.
- 3. Meningioma.
- 4. Nevrinoma.
- 5. Astrocitoma.

The most effective medical actions thus (read 1):

- 1. Anticoagulants.
- 2. Therapy izoniazide, rifampicin and ethambutol.
- 3. Surgical operation.
- 4. Irradiation by proton ions.
- 5. Irradiation of cranial-spinal axes.

Action of electronystagmography, registering movement of eyeballs, based on:

- 1. Catching of heat formed at movement of eyeballs.
- 2. Definition of potentials of impellent eye muscles.
- 3. Corner change between a cornea and a century.
- 4. Change of orientation of an internal dipole of one eye.
- 5. Change of EEG-activity in frontal and occipital shares of a brain.

The arrangement of cerebellar tonsils allows to assume:

- 1. 1st type of developmental anomaly of Chiari.
- 2. 2st type of developmental anomaly of Chiari.
- 3. The huge big tank.
- 4. Syndrome of the Dandy-Walker.
- 5. Normal posterior cranial fossa.

Layers of the superior surface of cerebellar vermis become more thin and settles down less often after abusing:

- 1. Tobacco.
- 2. Opium.
- 3. Heroin.
- 4. Alcohol.
- 5. Cocaine.

The most authentic method of recognition intracranial aneurysms:

- 1. Magnetic resonance imaging.
- 2. Computed Tomography (CT) scan.
- 3. Computed Tomography (CT) a method of single photon emission.
- 4. Positron (emission) tomography (PET).
- 5. Angiography.

#### Electroencephalogram (EEG):

- 1. A sterile needle is placed into the muscle from which small electrical signals are recorded when the muscle is contracted and when it is relaxed.
- 2. Electrodes are placed over the nerve to be assessed as well as the muscles it innervates. Small electric shocks are applied at one electrode. The time it takes these electrical pulses to reach the other electrode is recorded.
- 3. About 16-20 electrodes are attached to the patient's scalp, either with temporary, conducting glue or with extremely fine needles. The electrodes (also called leads) are small devices that are attached to wires and carry the electrical energy of the brain to a machine that reads them.
- 4. Test involves injecting dye into the blood vessels of the brain and then taking many X-rays of these vessels.
- 5. Test, contrast dye is not injected into the blood but rather into the cerebrospinal fluid (CSF) that coats the brain and spinal cord.

## Angiography is the main method in the diagnostic of:

- 1. Craniocerebral trauma (CCT).
- 2. Hydrocephaly.
- 3. Tumors of nervous system.
- 4. Neurovascular diseases.
- 5. Trauma of spinal cord.

#### CT Myelogram:

- 1. A common neurosurgical operation involves the diversion of excess cerebrospinal fluid (CSF) from the brain.
- 2. Removal of Cerebrospinal fluid (CSF) for diagnostic or therapeutic purposes.
- 3. Test involves injecting dye into the blood vessels of the brain and then taking many X-rays of these vessels.
- 4. A sterile needle is placed into the muscle from which small electrical signals are recorded when the muscle is contracted and when it is relaxed.
- 5. Test, contrast dye is not injected into the blood but rather into the cerebrospinal fluid (CSF) that coats the brain and spinal cord.

## Lumbar Puncture:

- 1. Removal of fluid from the abdomen by centesis for diagnostic or therapeutic purposes.
- 2. Removal of cerebrospinal fluid (CSF) for diagnostic or therapeutic purposes.
- 3. Removal of fluid from the chest by centesis for diagnostic or therapeutic purposes.
- 4. Removal of fluid from a joint by centesis.
- 5. Extraction by centesis of amniotic fluid from a pregnant woman (after the 15th week of pregnancy) to aid in the diagnosis of fetal abnormalities.

## Common neurosurgical tests are, except:

- 1. Abdominocentesis, paracentesis.
- 2. Cerebral angiogram.
- 3. Lumbar Puncture.
- 4. Computed Tomography (CT) Scan.
- 5. EMG/Nerve conduction studies.

Tentorium of cerebellum separates cerebellum from brain and often gives rise to:

- 1. Meningioma.
- 2. Ependymoma.
- 3. Hemangioblastoma.
- 4. Medulloblastoma.
- 5. Astrocitoma.

## Positron (emission) tomography (PET) is used for:

- 1. Identifications of type of a tumor.
- 2. Definitions of prescription of an infarction of a brain.
- 3. Definitions of a source of all intracranial hemorrhage.
- 4. Definitions of a basis of damage of a peripheral nerve.
- 5. Researches of the substratum absorbed by a brain.

## The neurological examination is divided into five parts:

- 1. Mental Status, Peripheral Nerves, Motor Function, Sensory Function, Reflexes.
- 2. Mental Status, Cranial Nerves, Motor Function, Sensory Function, Reflexes.
- 3. Mental Status, Cranial Nerves, Heart Function, Sensory Function, Reflexes.
- 4. Mental Status, Cranial Nerves, Motor Function, Blood Screen, Reflexes.
- 5. Mental Status, Cranial Nerves, Motor Function, Sensory Function, Chest X-ray.

# Neurosonography (NSG) is the main method in the screening of:

- 1. Craniocerebral trauma (CCT).
- 2. Hydrocephaly.
- 3. Tumors of nervous system.
- 4. Neurovascular diseases.
- 5. Trauma of spinal cord.

# Advantages of the magnetic resonance imaging over the computer tomography consists of the following, except:

- 1. The improved image cervical-medulla connections.
- 2. The best recognition of thin cracks of temporal bones.
- 3. The best recognition of the centers demyelization at a multiple sclerosis and others demyelization diseases.
- 4. The expressed contrast between gray and white substance of a brain, including the structures formed by them.
- 5. Elimination of ionizing radiation.

## Nerve Conduction Velocity (NCV):

- 1. Test involves injecting dye into the blood vessels of the brain and then taking many X-rays of these vessels.
- 2. A sterile needle is placed into the muscle from which small electrical signals are recorded when the muscle is contracted and when it is relaxed.
- 3. Test, contrast dye is not injected into the blood but rather into the cerebrospinal fluid (CSF) that coats the brain and spinal cord.
- 4. Electrodes are placed over the nerve to be assessed as well as the muscles it innervates.

- Small electric shocks are applied at one electrode. The time it takes these electrical pulses to reach the other electrode is recorded.
- 5. A common neurosurgical operation involves the diversion of excess cerebrospinal fluid (CSF) from the brain.

# The normal pressure of CSF in a sitting position:

- 1. 0-100 mm H<sub>2</sub>O.
- 2. 100-150 mm H<sub>2</sub>O.
- 3. 100-200 mm H<sub>2</sub>O.
- 4. 200-250 mm H<sub>2</sub>O.
- 5. 250 mm  $H_2O$  & above.

#### **EMG/Nerve Conduction Studies:**

- 1. Test involves injecting dye into the blood vessels of the brain and then taking many X-rays of these vessels.
- 2. A sterile needle is placed into the muscle from which small electrical signals are recorded when the muscle is contracted and when it is relaxed.
- 3. Test, contrast dye is not injected into the blood but rather into the cerebrospinal fluid (CSF) that coats the brain and spinal cord.
- 4. Electrodes are placed over the nerve to be assessed as well as the muscles it innervates. Small electric shocks are applied at one electrode. The time it takes these electrical pulses to reach the other electrode is recorded.
- 5. A common neurosurgical operation involves the diversion of excess cerebrospinal fluid (CSF) from the brain.

#### The normal pressure of CSF when patient lies:

- 1. 0-100 mm H<sub>2</sub>O.
- 2. 100-150 mm H<sub>2</sub>O.
- 3.  $100-200 \text{ mm } H_2O$ .
- 4. 250-300 mm H<sub>2</sub>O.
- 5.  $300 \text{ mm } H_2O \& above.$

#### Cerebral Angiogram is used for:

- 1. Some disease processes affect the blood vessels of the brain.
- 2. *Identification of type of a tumor.*
- 3. Determination if there is bleeding in the brain or bony destruction in the spinal column.
- 4. Assesses peripheral nerves.
- 5. *Imaging 'soft tissues' such as the brain and spinal cord.*

## The main diagnostic methods in neurosurgery are:

- 1. EEG, REG.
- 2. Biopsy & histology of nerve or brain tissues.
- *3. CT, MRI, LP.*
- 4. Neurological examination and laboratory analyses.
- 5. Angiography & PET.