Abstract

**Background:** Seizure is the commonest neurological manifestation in the neonatal period, and usually it shows an underlying problem in the brain due to brain damage and developmental defect in the central nervous system. As CT (computed tomography) scan is more reliable, more sensitive and more specific in determining underlying brain lesion that cause seizure like ischemia, hemorrhage and brain structural dysgenesis, so it became an important tool in assessment of neonatal convulsion.

**Aim of study:** To find abnormality in CT scan which are the possible causes for neonatal convulsion.

**Patients and methods:** A descriptive study performed for 70 neonates referred for CT scan of the head from period of the first of January 2008 to the first of April in 2010 in AL-Diawanya teaching hospital in Iraq after good history information, clinical examination and paraclinical investigation. All informations are collected in check list, including time of occurring seizure & underlying causes. CT scan (Siemens) used is with multiple axial sections, after general anesthesia to the neonate.

**Results:** From 70 neonates with neonatal seizures 28 were female and 42 (60%) were male, 39 neonates have normal CT scan and 31 have abnormal CT scan such as brain dysgenesis, intracranial hemorrhage, brain ischemia and cerebrites.

**Conclusion:** High incidence of abnormal CT scan (87.5%) in seizure occurring during the first 72 hours.

Among those positive CT scan of brain hypoxic ischemic was found in (45.9%).