convulisive Disorders in infancy and childhood

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Convulsive phenomena are one of the most commonneurologic problem in children. A seizure is the clinicalmanifestation of an abnormal neuronal hyperactivity whichusually involve cerebral cortical neurons, primarilyor secondarily, and is manifested in a manner dependentupon the extent and location of this neuronal hyperactivity.Classification of epileptic seizures is still aproblem. There is a difficulty of devising a singlecode to COver three basically incompatible systemsof classification, ~elating to the clinical featuresof the fit, to the anatomical and electrophysiologicalevidence of the source of the fit, and to its aetiologywhen known.Causes of convulsive seizures are different foreach childhood age group. In the neonatal period; convulsionsare due to metabolic disorders, intracranialbirth injury, intracranial infections, congenital cerebralmalformations, drugs, and developmental abnormalities.Perinatal hypoxia and intracranial haemorrhageare the most common causes of neonatal convulsionsand these account for over 50% of seizures in the neonatalperiod.In infancy, congenital abnormalities of the brainare a very common cause of convulsions specially betweenthe age of 2 months and 6 months and acute infectionsspecially meningitis also become significant. Febrileseizures are those occuring in children in associationwith fever and clinical illness other than those involvi~ng the brain. Seizures occur between the age of 3 monthsand 5 years with an incidence of 3-4% of all children.In childhood, idiopathiccause of convulsion.epilepsy isOther causesthe mostcommon include:trauma, toxic reactions and poisoning, and vascularcauses as hypertensive encephalopathy.Classification of epileptic: seizures is based onthe most recent internationally revised classificationproduced in 1981. This new classification subdivideseizures on the basis of the clinical features of theseseizures and the ictal and interictal electroencephalographicfeatures. There are two basic types of seizures,partial and generalized seizures. Partial seizuresare the manifestation of a focal epileptic dischargein only a portion of the brain. These seizures areclassified on the basis of whether or not consciousnessis impaired during the attacks. When consciousnessis not impaired, the seizure is classified as a simplepartial seizure and when consciousness is impaired,the seizures is classified as a complex partial seizure.In generalized seizures, motor signs are bilateraland reflect neuronal discharges that are widespreadin both hemispheres. These types of seizures include:absence, myoclonic, clonic, tonic, tonic-clonic, andatonic seizures.Management ofconsists of two2) therapy witha child with convulsive disordersphases: 1) aetiologic delineation;removal of the specific cause orsuppresion of seizures with anticonvulsants. Laboratoryexaminations include:

EEG, roentgenogram, CSF examination,blood studies for electrolyte assessment, blood pictureand culture, and urine analysis for heavy metals, drugsand amino acid analysis. The advent of computerizedtomography has helped greatly in the investigation of epilepticseizures. Approximately 50% of patients with focalsigns and symptoms and abnormal focus on EEG had abnormalCT scan.The objective in the treatment of epileptic patientsis complete control of seizures, or at least reductionin their frequency to the point at which they no longerinterfere with the physical and social well-being.Emerg_ency management of neonatal seizures includes a trialto corret the metabolic deficiency until biochemicaland metabolic disorders are excluded. In a child withfebrile convulsion, fever should be reduced by tepidwater and antipyretics, and treatment of the causativeinfection is essential.Phenobarbitone, diphenYlhYdantoin (epanutin), andprimidone are most often used for generalized tonicclonicseizures and partial seizures. EthosUximideis very effective in reducing petit mal (absence)seizures and excellent results have also been foundwith valproic acid. Once seizures are contrOlled, theanticonvulsant drug should be continued for a prolongedperiod without altering its dosage. Generally, childrenwith epilepsy should be treated for at least 4 seizurefreeyears before drug withdrawal.