

but therapeutic serum concentrations of carbamazepine (Thompson PJ, Trimble MR. J Neurol Neurosurg Psychiatry 1983; 46:227-233). It has been suggested that the so-called "psychotropic" effect of carbamazepine reported in cross over antiepileptic drug studies may have been related to the discontinuance of previous drugs rather than a positive carbamazepine effect and that cross over studies are potentially open to error by practice effects (Schain RJ et al. Neurology 1977; 27:476-480). The present study confirms the importance of comprehensive neuropsychological assessments to evaluate possible adverse cognitive side effects of antiepileptic drugs in children particularly at higher dose levels. The theoretical advantages of monotherapy, notwithstanding, the tendency to rigid persistence of large and potentially toxic doses and delay in change to alternative therapy may result in subtle deficits in learning that might be avoided by selective combination therapies at lower dose levels.

BEHAVIOR AND LEARNING DISABILITIES

HARMFUL EFFECTS OF LEAD ON LEARNING

Members of the Depts. Community Medicine, Education, Geology, and Med. Statistics Unit, Univ. Edinburgh, have investigated the effect of blood-lead on cognitive ability and educational attainment in a sample of 855 boys and girls aged 6-9 years from 18 primary schools in central Edinburgh. The mean blood-lead level was 10.4 ug/dl. Multiple regression analyses of individual test scores showed a significant negative relation between blood-lead and British Ability Scales combined scores, number skills, and word reading, with 33 possible variables accounted for. The dose-response relation between blood-lead and test scores showed no evidence of a threshold or safe level. It was concluded that lead at low levels of exposure probably has a small harmful effect on the performance of children in cognitive ability and attainment tests. (Fulton M et al. Lancet 1987; 1:1221).

COMMENT: This finding is in agreement with that of a previous study in the USA (Needleman et al. N Engl J Med 1979; 300:689-95) showing lead-related deficits in neuropsychological and classroom performance of children with elevated dentine lead levels. Exposure levels in the UK were lower than in the US study. Water and dust were the main sources of lead, attributed to a plumbosolvent water supply and lead plumbing in Edinburgh. Reports of research (1979-83) on the neuropsychological effects of lead in children are reviewed by the Medical Research Council, London, 1984.

A case of schizophrenic-like psychosis is an unusual manifestation of moderate lead intoxication (blood level of 60 ug/dl) reported in a 14 year old boy who had sniffed gasoline for 3 months. He was treated at Duke Univ Med Cntr, Durham, N Carolina, using a Ca EDTA challenge and 4 days chelation with dramatic clearing of agitation and psychotic symptoms. He had a history of dyslexia, visual-motor incoordination and conduct disorder. His IQ was 83 at 9 years of age and 69 on recovery from the lead intoxication. A possible psychobiological vulnerability to lead intoxication in children with learning problems, ADD, or mental retardation is proposed. (McCracken JT. J Amer Acad Child Adol Psychiat 1987; 26:274-276).

NEUROPSYCHOLOGICAL SEQUELAE OF REYE'S SYNDROME

The author, a pediatric neurologist at the U. of Kansas School of Medicine, Wichita, Kansas, reviews the sequelae and risk factors in survivors of Reye's syndrome. He reports a