

(abstract). The sudden onset of monoclonic jerks mainly involving the trunk and upper limbs, normal developmental milestones, absence of EEG abnormalities and self limited course were consistent with the diagnosis as described initially by Lombroso and Fejerman.

AMANTADINE IN ABSENCE EPILEPSY

Refractory absence epilepsy in 4 children was treated with amantadine as an add-on drug at the Tel Aviv University Sackler School of Medicine, Israel. The patients responded within 1 week and remained free of symptoms for 27-36 months without adverse effects. The dosage was 5-7 mg/kg per day given twice a day up to a maximum of 200 mg daily (Shahar EM, Brand N. Effect of add-on amantadine therapy for refractory absence epilepsy. J Pediatr of Neurol Nov 1992; 121:819-821). (Reprints: Eli M. Shahar, M.D., Child Neurology Unit, Chaim Sheba Medical Center, Tel Hashomer 52621, Israel.)

COMMENT. Amantadine was initially used by Shields et al. in the treatment of 10 children with minor motor seizures refractory to medications. Myoclonic seizures and atypical absence seizures responded well (Neurology 1985; 35:579).

VALPROATE AND EEG ABNORMALITIES

The effect of valproate on EEG epileptic abnormalities was investigated at the Institute of Neurophysiology, Genoa, Italy. Sixteen patients aged 14 to 44 years were administered a single (14-37 mg/kg) oral dose of magnesium valproate. At peak serum concentrations of 65-139 ug/ml of valproate, there were increases in spike wave frequency at 2, 3, 4 and 5 hours. The peak concentrations of ammonia ranged from 15-72 ug/l, with values exceeding normal in 13 determinations. The VPA and ammonia concentrations varied independently. The frequency of EEG epileptic abnormalities was not correlated with either the ammonemia level or the amount of variation in ammonemia concentration (Sannita WG. Valproate acute administration, EEG epileptic abnormalities, and ammonemia. Neurology Oct 1992; 42:2003-2005). (Reprints: Professor Walter G. Sannita, Centro Farmaci Neuroattivi, Dipartimento di Scienze Motorie, Università, Ospedale San Martino, viale Benedetto XV, I-16132 Genova, Italy.)

COMMENT. A direct CNS drug action has been proposed to explain the quantitative EEG abnormalities in response to acute VPA administration and the stupor states in some patients. The stupor was not necessarily related to the increased ammonia concentration in the blood.

BRAIN NEOPLASMS

BRAIN RADIOTHERAPY AND COGNITION

Cognitive function and school achievement were studied prospectively over 3 to 4 years in 19 children treated for brain tumors with whole-brain

radiotherapy at the Children's Hospital, Philadelphia, PA. Fourteen children also received adjuvant chemotherapy. A significant drop in IQ was seen among children with non-cortical tumors who received whole-brain radiotherapy with or without chemotherapy and who were treated before age 7. IQ did not decrease significantly in survivors treated after age 7. The IQ fell from a baseline of 104 to 92 at follow-up (Radcliffe J et al. Three- and four-year cognitive outcome in children with noncortical brain tumors treated with whole-brain radiotherapy. Ann of Neurol Oct 1992; 32:551-554). (Correspondence: Dr. Radcliffe, Division of Child Development and Rehabilitation, Children's Seashore House, 3405 Civic Center Boulevard, Philadelphia, PA 19104.)

COMMENT. All children younger than 7 years in this group were receiving special education at follow-up and 50% of the children over 7 years at diagnosis were receiving supplemental educational services. Increased fatiguability could be another reason for the poor school performance in these children.

LONG-TERM NEUROLOGIC PROBLEMS WITH MEDULLOBLASTOMA

All 11 children who presented since 1976 in Cardiff, Wales with medulloblastoma and who had survived at least 5 years were reviewed neurologically. Current ages ranged from 10 - 24 years. Surgical removal was complete in 6. All received radiotherapy. Nine had additional chemotherapy. Mild cerebellar ataxia was present in 10, and external ocular movement abnormalities in 2. Signs attributable to therapy were optic atrophy in 2, fine motor incoordination in 2, dyspraxia in 7 and dementia in 1. Epilepsy occurred in 2. Only 1 patient who presented at 13 years was free of neurologic consequences of therapy. Only 2 attended grade school, and only 3 are gainfully employed (Wallace SJ, Salaman PF. Long-term neurologic problems of children treated with medulloblastoma. Pediatr Neurol Sept/Oct 1992; 8:386-387 (abstract)). (Correspondence: Dr. Sheila J. Wallace, Department of Pediatrics, University Hospital of Wales, Health Park, Cardiff, CF44XN Wales UK.)

COMMENT. Detection of tumor occurrence by surveillance scanning in children with medulloblastoma is reported from the Children's Hospital of Philadelphia. Surveillance brain scans failed to detect recurrent disease in most patients and had virtually no impact on outcome. Follow-up should emphasize parent education and neurologic evaluation to detect relapse and to elicit and remediate late effects of therapy (Torres C et al. Ann Neurol Sept 1992; 32:458 (abstract)).

The antineoplastic effects of gallium nitrate on human medulloblastoma *in vivo* are reported from the Medical College of Wisconsin, Milwaukee, WI (Whelan HT et al. Pediatr Neurol Sept/Oct 1992; 8:323-327). Mice injected intradermally with medulloblastoma Daoy cell line developed tumors. Gallium nitrate treatment reduced tumor growth rate and tumor size, but the animals suffered nephrotoxicity.