SURGERY FOR CORTICAL MALFORMATIONS CAUSING EPILEPSY

The results of surgical treatment for malformations of cortical development (MCD) causing refractory epilepsy are reviewed from the Institute of Neurology, Queen Square, London, UK. Forty one percent of patients with MCD, especially those with focal cortical dysplasia (FCD), are seizure-free over a 2-year follow-up after resective surgery. A proportion may also be helped significantly. Different types of MCD have different sequelae, some including FCD and heterotopia being intrinsically epileptogenic. For polymicrogyria and schizencephaly, the visualized abnormalities are not always the epileptogenic zone. Preoperative EEG, MRI, PET, SPECT, functional MRI and magnetoencephalography, with quantitative analysis, are recommended when possible. Extralesional regions should be included in the studies. (Sisodiya SM. Surgery for malformations of cortical development causing epilepsy. A review. Brain June 2000;123:1075-1091). (Repond: Dr SM Sisodiya, Epilepsy Research Group, Institute of Neurology, Queen Square, London WC1N 3BG, UK).

COMMENT. A 40% post-surgical rate of seizure-free patients with MCD and focal cortical dysplasia is considerably lower than the 70% of patients with cessation of seizures following resection for hippocampal sclerosis. Occult MCD in addition to overt MCD might account for the relatively poor seizure outcome.

ATTENTION DISORDERS

SPECIFIC LANGUAGE IMPAIRMENT WITH OR WITHOUT ADHD

A neuropsychological study of the association between specific language impairment (SLI) and hyperactivity was conducted on four groups of 6-year-old children (5 boys and 5 girls in each group) at the Department of Psychiatry, University of Cambridge, UK. Cognitive functioning on non-verbal tests was not adversely affected in the SLI group, but a test of attentional set shifting, sensitive to frontostriatal dysfunction, was impaired in the hyperactive group. Hyperactive children also showed reduced spatial spans on a test of spatial working memory that reflects parietal lobe functioning. Psychological measures showed no interactions between hyperactivity and SLI. Children with ADHD have problems in inhibitory control of attentional selection. SLI and ADHD have different cognitive correlates. (Williams D, Stott CM, Goodyer IM, Sahakian BJ. Specific language impairment with or without hyperactivity: neuropsychological evidence for frontostriatal dysfunction. Dev Med Child Neurol June 2000;42:368-375). (Respond: Dr CM Stott, Developmental Psychiatry Section, Douglas House, 18b Trumpington Road, Cambridge CB2 2AH, UK)>

COMMENT. The authors recommend that future studies of SLI and ADHD should include concurrent measures of language, cognition, behavior, and general IQ. To determine differences between the psychological functioning of children with SLI and ADHD subtypes, a larger patient sample is required. ADHD children had both frontostriatal and parietal lobe dysfunction, while SLI patients showed no adverse functioning on non-verbal tests.

Controlled study of Adderall and MPH in ADHD showed that the drugs are comparable in reducing inattention and opposition symptoms in the classroom, but Adderal has a longer duration of action. (Pliszka SR, Browne RG, Olvera RL, Wynne SK. J Am Acad Child Adolesc Psychiatry May 2000;39:619-626).