Every anticonvulsant drug, both old and new, has its problems, and clinical trials are fraught with potential hazards (e.g. liver fatalities with valproate, leukopenia with carbamazepine, erythe multiforme and lymphoma with phenytoin, and learning disorders with barbiturates). Hopefully, the Vigabatrin-induced CNS vacuoles in animals will prove to be a species specific effect but close monitoring in man is required.

CAUSES OF ANTIEPILEPTIC TREATMENT FAILURE

The Veterans Administration Epilepsy Cooperative Study Group (Regional Epilepsy Center, VA Med Cntr, 4500 S Lancaster Rd, Dallas, TX) have evaluated monotherapy with carbamazepine, phenobarbital, phenytoin, and primidone in a total of 622 patients with previously untreated partial seizures, with particular attention to seizure frequency, neurotoxicity, and systemic toxicity. These 3 factors contributed equally to failure in the first 6 months but systemic toxicity, primarily skin rash, played a relatively minor role in drug failure after that time interval, with the same pattern seen for all drugs studied. After 6 months, failure is determined by seizure frequency and neurotoxicity and is relatively low. A failure rate of 25.3 patients/month during the first 6 months was approx. 6.5 times that during the following 18 months (3.9 patients/month). The first 24 months were critical for successful control since after that time the failure rate falls rapidly to 0.83 patients/month during a 12 month period follow-up. (Homan RW, Miller MS. Causes of treatment failure with antiepileptic drugs vary over time. Neurology 1987:37:1620-1623).

COMMENT: Such studies would be difficult to duplicate in children although similar results might be expected. That dermatologic, hypersensitivity reactions should occur primarily during the first few months of a new antiepileptic drug (AED) treatment is not surprising. It is likely that the majority would have developed within the first 2 weeks. The incidence of skin rash in the first 6 months of this study involving only adults was 6% and similar to that encountered in children taking phenytoin but higher than that usually reported for carbamazepine (3 to 5%) phenobarbital (1 to 2%) and primidone (rare). AED hypersensitivity reactions are generally more prominent in young children than in adults (e.g. phenytoin, valproate).

DRIVING AND EPILEPSY

Of 400 drivers with epilepsy questioned, 133 admitted having one or more seizures at the wheel, and 17% had resulting accidents. The authors from the Institut de Reserches Neurologiques, Marseille, France, and Dept Neurology, SUNY Health Sciences Center at Brooklyn, NY, attempting to relate the risk of accidents to the type of seizure, were able to characterize 109 attacks in 82 subjects of which 55% led to an accident. Young drivers accounted for one half those with seizures at the wheel and a complex partial seizure usually without aura was the most common pattern, being responsible for 88% of the accidents. Those with auras were significantly less likely to lead to accidents. Many of the patients were driving illegally, 46% having seizures at least monthly and 74%, at

least yearly. Males, 19 to 30 years, in higher socio-economic classes, formed the majority continuing to drive without adequate seizure control. Based on the recommendations of the Ad Hoc Committee of Epilepsy International, the authors proposed that: (1) a driving license may be granted only to an epileptic who has been seizure-free for at least 1 year; (2) temporary permits may be granted in exceptional circumstances to certain individuals on the advice of a certified neurologist having special interest and competence in epilepsy. (Gastaut H, Zifkin BG. The risk of automobile accidents with seizures occurring while driving: relation to seizure type. Neurology 1987:37:1613-1616).

COMMENT: In the State of Illinois, patients with epilepsy may obtain a license to drive at the discretion and on the advice of the neurologist in charge of treatment. Temporary permits are not issued. Although questioned concerning the duration of care, the occurrence of attacks in the past 6 months, of a type without warning and with loss of consciousness, and the patient's compliance in taking medication, a neurologist's certificate to the effect that the patient is medically fit to operate a motor vehicle is usually sufficient, irrespective of the frequency or pattern of seizures. A more restrictive policy toward epileptics and driving, including a one year period of control, was counterproductive, forcing patients to deny the recurrence of seizures and thereby preventing the prescription of optimal therapy. The present study appears to support the discretionary policy based on individualized applications for driving licenses of epileptics, but the monitoring of young male drivers with complex partial seizures should be close and frequent and should include serum drug levels and when appropriate, repeated EEG's to check drug compliance and seizure susceptibility.

INFECTIOUS DISEASES

HERPES SIMPLEX ENCEPHALITIS

The successful outcome of a case of herpes simplex encephalitis (HSE) in a pregnant woman at 29 weeks gestation is reported from the Depts of Neurology and Gynecology and Obstetrics, Royal Perth Hospital and the State Health Lab Services, Perth, Western Australia. The diagnosis was suspected from the clinical presentation with fever, headache, stupor, generalized convulsion, a focal EEG, and a hypodense area in the right temporal lobe on CT. It was confirmed retrospectively from evidence of specific antibody production in the CSF. Acyclovir 800 mg/d IV every 8 hours and in a reducing regime was continued for 22 days. She recovered after 2 months and delivered a normal unaffected baby. Mother has led a normal life except for right sided focal motor and grand mal seizures controlled with anticonvulsants for 3½ years and secondary to post-encephalitic temporal lobe atrophy. The child, aged 3½ years, is well. Infection with HSV in this patient was not disseminated and did not cross the placenta. Acyclovir was non-toxic to mother and fetus when used in the 3rd trimester of pregnancy. (Hankey, GJ, Bucens MR, Chambers JSW. Herpes simplex encephalitis in third trimester of pregnancy: successful outcome for mother and child. Neurology 1987:37:1534-1537).

COMMENT: This case of HSE is the sixth to be reported in pregnancy