history of epilepsy. Brain imaging studies were normal. Two showed paroxysmal EEG abnormalities with intermittent photic stimulation. All 4 with cartoon-evoked seizures had a 3-Hz spike-and-wave photoparoxysmal response (PPR) when exposed to the blue/red colored cartoon frames at 6 and 12 Hz flicker rates, and less frequently, only at 12 Hz flicker, with a monochromatic gray/black version of the cartoon. In contrast, 2 boys with TV game epilepsy were unaffected by the cartoon. (Tobimatsu S, Zhang YM, Tomoda Y, Mitsudome A, Kato M. Chromatic sensitive epilepsy: a variant of photosensitive epilepsy. Ann Neurol June 1999;45:790-793). (Respond: Dr Tobimatsu, Department of Clinical Neurophysiology, Neurological Institute, Faculty of Medicine, Kyushu University, 3-1-1 Maidashi, Higashi-Ku, Fukoka 812-8582, Japan).

COMMENT. TV producers of children's programs need to be alerted not only to the adverse effects of violence but also to the color content of their cartoons. Factors responsible for precipitating photosensitive epileptic seizures include light, pattern, stimulus frequency, and, in addition, the blue/red colors. Testing for chromatic sensitivity should be added to the list of activating procedures during EEG recordings in children with suspected photosensitive epilepsy.

TOPIRAMATE IN LENNOX-GASTAUT SYNDROME

The efficacy and safety of topiramate as adjunctive therapy for Lennox-Gastaut syndrome were studied in an 11-week multicenter, double-blind, placebo-controlled trial involving 98 patients, 1-30 years of age, and reported from the New Jersey-Robert Wood Johnson Medical School, New Brunswick, NJ. A greater than 50% reduction in drop attacks and tonic-clonic seizures was obtained in one third, and parental global evaluations indicated a reduction in seizure severity. Adverse events occurring with greater frequency in the topiramate patients than in controls included somnolence, anorexia, nervousness, behavioral problems, fatigue, dizziness, and weight loss, but none caused treatment to be completely withdrawn. (Sachdeo RC, Glauser TA, Ritter F et al, and Topiramate YL Study Group. A double-blind, randomized trial of topiramate in Lennox-Gastaut syndrome. Neurology June 1999;52:1882-1887). (Reprints: Dr Rajesh C Sachdeo, University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School, 97 Paterson St, Room 118, New Brunswick, NJ 08903).

COMMENT. Topiramate may be effective as adjunctive therapy in Lennox-Gastaut syndome.

Topiramate pharmacokinetics and tolerability were studied in 18 children, 4-17 years of age, at the Epilepsy Care Center, Chesterfield, MO, using graded doses from 1 mg/kg/day, increasing weekly to 9 mg/kg/day or 800 mg/day at the 4th week. (Rosenfeld WE et al. Pediatr Neurol May 1999;20:339-344). Oral plasma clearance was independent of dose, and plasma concentrations were proportional to the dose. Topiramate clearance was 50% greater than that in adults, and higher in children receiving enzyme-inducing antiepileptic drugs. Steady-state plasma topiramate concentrations are 33% lower in pediatric than in adult patients, for the same mg/kg dose. Adverse events occurring in 39% to 17% of patients included anorexia, fatigue, nervousness, and attention problems.

RISK OF STEVENS-JOHNSON SYNDROME WITH AED THERAPY

The role of antiepileptic drugs in Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) was evaluated in a case-control study in Europe and reported from Mannheim, Germany. Of 352 cases of SJS/TEN, 73 (21%) had received antiepileptic drugs, and of the cases associated with AEDs, 8 (11%) died.

The risk was highest and largely confined to the first 8 weeks of therapy, and phenytoin, phenobarbital, and carbamazepine were associated most frequently. Valproic acid, in combination with other drugs, and lamotrigine were less frequently associated. Glucocorticosteroid intake or radiotherapy did not increase the risk in this study. (Rzany B, Correia O, Kelly JP et al, for the International Study on Severe Cutaneous Adverse Reactions. Risk of Stevens-Johnson syndrome and toxic epidermal necrolysis during first weeks of antiepileptic therapy; a case-control study. Lancet June 26, 1999;353:2190-2194). (Respond: Dr Berthold Rzany, Hautklinik der Facultat fur klinische Medizin Mannheim der Universitat Heidelberg, Linikum Mannheim gGmbH, Theodor Kutzer Ufer, D-68135 Mannheim, Germany).

COMMENT. The risk of severe skin reactions with antiepileptic drug therapy is most frequently reported with phenytoin, phenobarbital, and carbamazepine, and is largely confined to the start of treatment. Lamotrigine is also a potential cause of Steven-Johnson syndrome and Lyell's syndrome (toxic epidermal necrolysis), while valproic acid is rarely associated. See Progress in Pediatric Neurology III, PNB Publ, 1997;pp143-146; and Vol II, 1994;pp107-109, for additional reports of AED-induced Stevens-Johnson syndrome.

EFFECT OF EPILEPSY SURGERY ON ASSOCIATED AUTISM

The outcome of pervasive developmental disorder (PDD) in 5 children who underwent epilepsy surgery at 3 to 8 years of age is reported from the Cleveland Clinic Foundation, Cleveland, OH. Four children had temporal lobe resections, and one a right temporoparietal-occipital resection. Three had focal cortical dysplasia, and 2 had tumors. At 14-47 month follow up (mean, 23 months), one child with persistent seizures had moderate improvements in development and behavior, 3 with seizure control were mildly improved, and 1 seizure free patient had worsened PPD associated with cognitive and emotional deterioration. Behavioral and cognitive changes were independent of seizure outcome. (Szabo CA, Wyllie E, Dolske M et al. Epilepsy surgery in children with pervasive developmental disorder. Pediatr Neurol May 1999;20:349-353). (Respond: Dr Wyllie, Head, Pediatric Epilepsy Program, Cleveland Clinic Foundation, 9500 Euclid Ave, Cleveland, OH 44195).

COMMENT. Symptoms of pervasive developmental disorder may not show improvements, and are sometimes worsened, after epilepsy surgery for refractory seizures. Improvements in behavior and cognition can be associated with persistent epilepsy, whereas postoperative PPD deterioration may follow seizure control.

"Paradoxical normalization" (acute psychiatric symptoms with abrupt cessation of seizures and normalized EEG) has been observed in children with epilepsy treated with ACTH or antiepileptic drugs. (See Progress in Pediatric Neurology III, 1997;pp71-73). This syndrome was particularly common during trials of phenacemide (Phenurone) for "psychomotor" epilepsy in the early 1950s. Some drugs appear to have a greater propensity than others to cause personality disorders, and the association between epilepsy and psychosis is age-dependent. The evidence that surgical control of seizures can also induce a worsening of autistic symptoms suggests that seizure control per se is the mechanism and not a specific adverse effect of the antiepileptic drug. Further investigation of this phenomenon is indicated.