# ANTICONVULSANT DRUGS

## LAMOTRIGINE FOR ABSENCE SEIZURES

The effectiveness and safety of lamotrigine (Lamictal) monotherapy in newly diagnosed typical absence seizures in 45 children and adolescents, aged 3-15 years, were evaluated in a placebo-controlled, double-blind trial at centers in Norfolk, VA; Akron, OH; Boston, MA; and Research Triangle Park, NC. EEG with hyperventilation and ambulatory 24-hr EEG recordings were used to confirm diagnoses and assess freedom from seizures. In the initial open-label dose escalation phase, 71% of patients (intent-to-treat) or 82% (per protocol analysis) became seizure free on doses of 2-15 mg/kg/day (median, 5.0). In the controlled trial, 62% of patients remained seizure free when treated with LTG and 21% when receiving placebo ($p<0.02$). Mean plasma LTG concentrations showed a linear relation to the dose. Adverse effects included rash, nystagmus, and depression, but none was severe. Pre-treatment inattention and hyperactivity in 3 patients were improved following LTG.(Frank LM, Enlow T, Holmes GL et al. Lamictal (lamotrigine) monotherapy for typical absence seizures in children. Epilepsia July 1999;40:973-979). (Reprints: Dr LM Frank, Neurodevelopmental Center of the Children's Hospital of the King's Daughters, Monarch Research Associates, 850 Southampton Avenue, Norfolk, VA 23510).

COMMENT. Lamotrigine monotherapy is effective and relatively free from serious side effects in children with typical absence seizures. Skin rash can be troublesome, but risk of serious rash may be lessened by adhering to recommended dosage guide-lines.

## LAMOTRIGINE-ASSOCIATED SKIN RASH

The risk factors and methods of minimizing the occurrence of serious rash during treatment with lamotrigine (LTG) were evaluated by an international panel of experts and by review of published and unpublished reports. Stevens-Johnson syndrome and hypersensitivity syndrome with rash, necessitating hospitalization, occurred in 1 of 300 adults and 1 of 100 children in clinical trials. An allergic skin reaction occurred in 10% of patients, mainly in the first 8 weeks of therapy. The risk of skin rash was greatest with overrapid titration of initial doses of LTG and with concurrent valproate therapy. The panel outlines recommendations for minimizing the risk of serious rash with LTG: dosage guidelines for monotherapy, for therapy concurrent with VPA or other enzyme-inducing AED, and dosages in children. As add-on therapy in children (aged 2-12 years) taking valproate, initial total daily doses of 0.2 mg/kg for weeks 1 and 2, and 0.5 mg/kg once daily for weeks 3 and 4 are recommended. With other enzyme-inducing AED, 2 mg/kg/day in 2 divided doses for weeks 1 and 2, and 5 mg/kg/daily for weeks 3 and 4 are suggested. Maintenance and maximal suggested doses are achieved by slow increments every 1-2 weeks. The reader should consult the report for details of LTG dosage and management of rash. (Guberman AH, Besag FMC, Brodie JM et al. Lamotrigine-associated rash: risk/benefit considerations in adults and children. Epilepsia July 1999;40:985-991). (Reprints: Dr AH Guberman, Division of Neurology, Ottawa General Hospital, 501 Smyth Rd, Ottawa, Ontario K1H8L6, Canada).

COMMENT. Skin rash can be a serious side effect of anticonvulsant medications, especially in children, and some forms may be life-threatening. Attention to guidelines for the gradual introduction of lamotrigine, and avoidance