

in the 2000-1 AAP Guidelines. (Gardner W, Kelleher KJ, Pajer K, Campo JV. Follow-up care of children identified with ADHD by primary care clinicians: a prospective cohort study. **J Pediatr** December 2004;145:767-771). (Reprints: Dr Gardner, Office of Clinical Science, Children's Research Institute, 700 Children's Drive, Suite 1401, Columbus, OH 43205).

**COMMENT.** Follow-up of children with ADHD requiring medication monitoring is time consuming, and optimal management should include both parent and teacher reports regarding educational and behavioral progress, provided monthly. A psychological evaluation is essential in patients whose academic achievement falls short of that expected. A single clinician visit each 6 months is generally insufficient, and collaboration with a mental health or neurology specialist can optimize results of therapy.

A current clinical practice review and guidelines for diagnosis and management of ADHD, as followed in the Department of Pediatrics and Human Development, Michigan State University, East Lansing, MI, recommends visits every 3 to 4 months, once a stable dose of medication is established (Rappley MD. **N Engl J Med** January 13, 2005;352:165-173). An opportunity to monitor medication between quarterly visits is also afforded by parental telephone requests for prescription renewal at monthly intervals.

**Recent warnings regarding rare but serious adverse events with Adderall XR and Strattera** (atomoxetine) have emphasized the importance of close medication monitoring to avoid toxicity: patients with a history or signs of cardiac problems should not be treated with Adderall, and patients receiving Strattera should be monitored for symptoms or signs of liver dysfunction.

**The physician's role in the collaborative community care of ADHD** is outlined in a report of a consensus developed among health care providers and educators in North Carolina Counties (Foy JM, Earls MF. A process for developing community consensus regarding the diagnosis and management of attention-deficit/hyperactivity disorder. **Pediatrics** Jan 2005;115:e97-e104). The MD's role includes close collaboration with school personnel, and use of communication forms to share diagnostic and medication information with school and family. Large discrepancies were identified between pediatricians' practice patterns and AAP guidelines, and 50% of children with ADHD were unidentified and untreated.

## **HEADACHE DISORDERS**

### **PRACTICE GUIDELINES FOR MANAGEMENT OF MIGRAINE**

The literature (166 articles identified and reviewed) on the pharmacological treatment of the child with migraine headache was classified according to acute headache and preventive medications, and the results of drug trials were evaluated by Committees of the Child Neurology Society and American Academy of Neurology. Five agents reviewed for *acute treatment* were evaluated as follows: sumatriptan nasal spray and ibuprofen - effective and well tolerated compared to placebo; acetaminophen - probably effective and well tolerated cf placebo; rizatriptan and zolmitriptan - safe and well tolerated but not superior to placebo. Twelve agents for *preventive therapy*: flunarizine - probably effective; insufficient data concerning cyproheptadine, amitriptyline, divalproex sodium, topiramate, and

levetiracetam; conflicting data concerning propranolol and trazodone; and pizotifen, nimodipine, and clonidine – no effect demonstrated. For children > 6 yrs, ibuprofen or acetaminophen may be considered for relief of acute migraine, and for adolescents > 12 yrs, sumatriptan nasal spray may be recommended for acute treatment. In the United States, preventive therapy recommended for migraine is of unproven value; flunarizine may be considered but is not available. (Lewis D, Ashwal S, Hershey A, et al. Practice parameter: Pharmacological treatment of migraine headache in children and adolescents. Report of the American Academy of Neurology Quality Standards Subcommittee and Practice Committee of the Child Neurology Society. *Neurology* December (2 of 2) 2004;63:2215-2224). (Reprints: American Academy of Neurology, 1080 Montreal Ave, St Paul, MN 55116).

COMMENT. Evidence available in published reports provides insufficient data to make general recommendations for the preventive therapy of childhood migraine. Except for the calcium channel blocker, flunarizine, which is unavailable in the US and which showed significant benefit in one double-blind, placebo-controlled, crossover trial, trials of antiepileptic medications, antidepressants, antihistamines, and antihypertensive agents have provided insufficient data, conflicting results, or have failed to demonstrate an effect.

Non-steroidal anti-inflammatory agents are effective in treatment of acute attacks of migraine in young children, and sumatriptan nasal spray may be used in adolescents. Standardized criteria are needed for the diagnosis of migraine in children, and multicentered, placebo-controlled clinical trials are essential to adjust for the high placebo response rate encountered in this age group. Failure to investigate and avoid dietary and other headache triggers is a frequent explanation for excessive use of medications (Millichap JG, Yee MM. *Pediatr Neurol* 2003;28:9-15).

***Petasites hybridus* root (butterbur) is an effective preventive treatment for migraine in adults** (ages 18 to 65) (Lipton RB, et al. *Neurology* 2004;63:2240-2244). Over 4 months of treatment, migraine attack frequency was reduced by 48% for Petasites extract 75 mg bid ( $p=0.0012$  vs placebo). Apart from mild gastrointestinal symptoms, predominantly burping, no side effects were related to the treatment. In the US, Petasites extract is marketed as a food supplement (Petadolex). The authors caution that only the commercially available preparation of the herb extract should be taken internally. Feverfew has also been tested in controlled trials as a prophylactic migraine therapy (Murphy JJ et al. *Lancet* 1988;2:189-192).

## **INFECTIOUS DISORDERS**

### **STROKE AS SEQUEL TO VARICELLA VACCINATION**

Two children, ages 18 months and 14 months, who presented with acute hemiparesis 5 days and 3 weeks following varicella vaccination are reported from Alberta Children's Hospital, and the University of Calgary, Ontario, Canada. CT and MRI showed unilateral infarction of the basal ganglia and internal capsule in both patients. MRA showed narrowing of the mid-M1 segment of the right middle cerebral artery in one patient. Echocardiography in both patients showed a small patent foramen ovale with left to right shunting. One patient had a severe iron-deficiency anemia. At 1 year follow-up in one patient, the neurologic