schwannoma, posterior subcapsular lenticular opacities. NF2 should be suspected in children presenting with meningioma, scwannoma, and skin features, insufficient for a diagnosis of NF1.

Magnetic resonance spectroscopy studies in children with neurofibromatosis type 1 are reported from Johns Hopkins Hospital, Baltimore, MD. (Kaufmann WE, Wang PY, Koth CW, Denckla MB, Barker PB. <u>Ann</u> <u>Neurol</u> Sept 1999;46:528 abstr). Absolute metabolite concentrations within UBOs, globus pallidus, and thalami showed an age-dependent pattern, with elevated choline and preserved N-acetylaspartate (NAA) levels in younger subjects (<10 years) and reduced NAA and normal choline levels in older subjects. The MRS metabolic abnormality in UBO's is a generalized phenomenon without a T2 signal counterpart in affected brain regions. The possible significance of these MRS changes is discussed.

# ATTENTION DEFICIT DISORDERS

## THERAPEUTIC PATTERNS FOR YOUTHS WITH ADHD

The temporal patterns of office visits (primary care physicians or psychiatry and neurology specialty clinics) for attention deficit hyperactivity disorder (ADHD) and stimulant treatment for 5 to 14-year-old youths were studied at the University of Maryland and Johns Hopkins Medical Institutions, Baltimore, and the APA, Washington, DC. Youth visits for ADHD as a percentage of total physician visits increased 90%, from 1.9% in 1989 to 3.6% in 1996, and stimulant therapy rose from 63% to 77%. One third of ADHD youth visits were to specialty clinics, and complex multidrug therapy was usually prescribed by psychiatrists. (Zito JM, Safer DJ, dosReis S et al. Psychotherapeutic medication patterns for youths with attention deficit/hyperactivity disorder. <u>Acta Pediatr Adolesc Med</u> Dec 1999;153:1257-1263). (Respond: Julie Magno Zito PhD, 100 N Greene St, Baltimore, MD 21201).

COMMENT. ADHD youths treated with stimulants alone were seen mainly by primary care physicians, while youths receiving multidrug therapies attended psychiatry clinics. In the Practice Research Network survey, 53% of patients treated for ADHD received nonstimulant psychotherapeutic medications concomitantly (tricyclic antidepressants, clonidine, and antipsychotics). Complex therapy for comorbid disorders requires further evaluation of both efficacy and safety.

Efficacy vs effectiveness of stimulant medication. In an editorial, Wolraich ML (<u>Arch Pediatr Adolesc Med</u> Dec 1999;153:1220-1221) distinguishes between studies of efficacy and effectiveness of stimulant medication for ADHD. While efficacy studies examine the effects of a medication under ideal conditions, effectiveness research attempts to determine the success of the intervention in practice. Frequency of visits appropriate to monitor effects, dosing patterns, and sources of information need to be addressed. While there may be inappropriate treatment with methylphenidate with wide variation in physician and prescription rates, the prevalence of stimulant use does not exceed the prevalence rates for ADHD.

Measurements of attention deficits and impulsivity. The Gordon Diagnostic System (GDS), a computerized tool to measure impulse control, attention

and vigilance and standardized for American children, is evaluated for use among Swedish children. (El-Sayed E, van't Hooft I, Fried I et al. <u>Acta Paediatr</u> Nov 1999;88:1262-1268). Statistically significant differences are found between ADHD children and age-matched control children.

## TRIAL OF CHOLINERGIC AGONIST IN ADULTS WITH ADHD

A novel cholinergic activating agent, ABT-418, was used to treat 29 adults with ADHD, in a double-blind, placebo-controlled, randomized, crossover trial at the Pediatric Psychopharmacology Clinic, Massachusetts General Hospital, Boston. A significantly higher proportion of patients was benefited by ABT-418 in a transdermal patch (75 mg/day) compared to placebo (40% versus 13%). ADHD symptom checklist scores were also significantly reduced (28% versus 15%). Attentiveness scores and patients with less severe ADHD responded most frequently. Dizziness, skin irritation, nausea, and headaches were the most common adverse effects, and necessitated dose reduction in 6 patients and withdrawal in 1. (Wilens TE, Biederman J, Spencer TJ et al. A pilot controlled clinical trial of ABT-418, a cholinergic agonist, in the treatment of adults with attention deficit hyperactivity disorder. <u>Am I Psychiatry</u> Dec 1999;156:1931-1937). (Respond: Dr Wilens, Pediatric Psychopharmacology Clinic, ACC 725, Massachusetts General Hospital, Boston, MA O2114).

COMMENT. ABT-418, a nicotinic analog, may be a useful new agent in the treatment of ADHD, and especially in patients with the inattentiveness subtype (ADD) and those with less severe symptoms. The results of this trial provide further evidence of a link between nicotinic-cholinergic agents, catecholamine function, and improvement in ADHD.

EEG operant conditioning (neurotherapy) to treat ADHD is reviewed by Nash JK (<u>Clin Electroencephalogr</u> January 2000;31:30-37). Studies suggest that clinical improvement in ADHD is related to measurable improvements in the EEG, with a decline in theta/beta ratios over the frontal/central cortex and/or reduced theta/alpha band amplitudes.

#### SEIZURE DISORDERS

#### KETOGENIC DIET IN TREATMENT OF EPILEPTIC APHASIA

Three children, ages 9, 12 and 14 years, with acquired epileptic aphasia refractory to treatment with antiepileptic drugs, ACTH and prednisone, responded to the ketogenic diet for 12 to 26 months, in a trial at the Children's Hospital of Philadelphia, and University of Pennsylvania School of Medicine, PA. Improvements in language, and lessening of seizures and EEG seizure discharges occurred in all patients. Social interactions and behavior also improved significantly. (Bergqvist AGC, Chee CM, Lutchka LM, Brooks-Kayal AR. Treatment of acquired epileptic aphasia with the ketogenic diet. <u>Child Neurol</u> Nov 1999;14:696-701). (Respond: Dr AG Christina Bergqvist, Division of Neurology, The Children's Hospital of Philadelphia, PA 19104).

COMMENT. The ketogenic diet is presented as a new therapeutic alternative for patients with Landau-Kleffner syndrome. The results are promising and the method deserves further study in this frequently resistant epileptic disorder.