family suggest a common "susceptibility gene" and an etiologic relationship for these disorders. (Nemeth AH, Mills KR, Elston JS, Williams A, Dunne E, Hyman NM. Do the same genes predispose to Gilles de la Tourette syndrome and dystonia? Report of a new family and review of the literature. Mov Disord September 1999;14:826-831). (Reprints: Andrea H Nemeth MD, PhD, The Wellcome Trust Centre for Human Genetics, Windmill Road, Headington, Oxford OX3 7BN, UK).

COMMENT. A relationship between some cases of Tourette syndrome and focal dystonia, suggested by previous scattered reports in the literature, is strengthened by this family of 8 affected members, and may indicate a sharing of predisposing genes. TS is frequently familial, and may be inherited as an autosomal dominant trait. Focal dystonias are genetically heterogeneous and can be inherited as autosomal dominant traits with incomplete penetrance. The family described in which TS and dystonia cosegregate may be genetically distinct from other forms of TS and focal dystonia. It is of interest that hyperactivity occurred in one patient, who was "always on the go," and ADHD is a frequent comorbid disorder with TS. Choreiform movements sometimes coexist with ADHD (Prechtl syndrome), but focal dystonia is a rare and subtle finding.

We have recently observed a family in which a 2 year old is diagnosed with idiopathic dyskinesia, including dystonic movements, and a 5 year old has ADHD (Keating G, Millichap JG. Division of Neurology, Children's Memorial Hospital, unpublished observations).

Tizanidine (Zanaflex) therapy in Tourette syndrome and ADHD. When administered alone or in combination with conventional therapies, tizanidine benefited 63 patients (ages 4-19 years), and side effects, especially drowsiness and fatigue, were fewer and less severe than those with clonidine, another centrally acting a2-adrenergic agonist. (Foradada III, JR. Ann Neurol Sept 1999;46:529, abstract).

PERSISTENT SYDENHAM'S CHOREA

Patients with Sydenham's chorea (SC) seen at the Movement Disorders Clinic of the Federal University of Minas Gerais, Brazil, 1993-1998, were followed prospectively to determine the proportion with persistent symptoms more than 2 years (Group 2, N=16), and clinical features that might differentiate patients with duration less than 2 years (Group 1, N=16). No significant differences were found between Groups 1 and 2 in respect to M/F ratio (50/50 and 31/68, respectively, p=0.23); age at onset (10.9 and 9.3 years, p=0.23); % with arthritis (37 and 19, p=0.28); carditis % (31 and 50, p=0.28); hemichorea % (25 and 6, p=0.14); generalized chorea % (75 and 94, p=0.14); and severity of chorea (moderate to severe, p=0.59). All patients were taking penicillin to prevent recurrent streptococcal infection and RF. (Cardoso F, Vargas AP, Oliveira LD, Guerra AA, Amaral SV. Persistent Sydenham's chorea. Mov Disord Sept 1999;14:805-807). (Reprints: Francisco Cardoso MD, Dept of Neurology, UFMG, Av Pasteur 89/1107, 30150-290 Belo Horizonte MG, Brazil).

COMMENT. Sydenham's chorea of moderate to severe degree may persist longer than 1 year in 50% of patients. Female gender and the presence of carditis may be risk factors for a longer duration of SC, although the data are not statistically significant.

These findings are at variance with the generally held belief that SC is self-limiting, usually lasting 2 to 6 months. However, other movement and behavioral disorders may occur as sequelae of SC, including tics, ADHD, and

obsessive compulsive disorder. PANDAS, or pediatric autoimmune neuropsychiatric disorders associated with streptococcal infection, are reviewed by Kurlan R (Neurology June 1998;50:1530-1534), and Ped Neur Briefs July 1998;12;49-50.

Prednisone therapy and chorea duration. In a study of 600 cases of rheumatic fever seen between 1971 and 1999 and evaluated at the Primary Children's Medical Center, Salt Lake City, UT, 142 (24%) had rheumatic chorea, and 69 (49%) received treatment, 57 with prednisone. Median time to 100% recovery was 2.75 weeks (range, 3-24 weeks) for prednisone-treated patients vs 10 weeks (range, 3-24 weeks) for untreated children ($p<0.01$). Hemichorea occurred in 39% of patients, a higher incidence than in the Brazil study. (Thompson JA, Tani LY, Bale Jr JF. Sydenham's chorea: the Utah experience. Ann Neurol Sept 1999;46:523, abstract).

HEADACHE DISORDERS

DURATION OF MIGRAINE HEADACHES IN CHILDREN

Children referred to the Headache Center at Children's Hospital Medical Center, Cincinnati, OH, Sept 1996-June 1997, were evaluated for clinical characteristics of the headaches, using criteria of the International Headache Society (IHS), and older criteria by Vahlquist and Prensky and Sommer for comparison. Questionnaires were completed by 184 patients and their families. The age range was 2-18 years (mean, 11 yrs), and the majority had suffered 5 or more headaches. The headache duration was less than 2 hours in 25 (13.6%), 2-4 hours in 65 (35%) of whom 54 were younger than 15 years, 4-72 hours in 71 (39%), and more than 72 hours in 22 (12%). Only 62 patients (34%) satisfied the IHS diagnostic criteria. By amending these criteria to include a duration range from 2-48 hours for children younger than 15 years, 109 (59%) met the criteria. If headache duration was excluded entirely from the IHS criteria, 147 (80%) qualified for a migraine diagnosis. The modified IHS criteria matched the Prensky and Sommer but not the Vahlquist criteria. The duration factor should be a minor criterion for migraine in children, and only headaches longer than 72 hours should be excluded in children younger than 15 years. (deGrauw TJ, Hershey AD, Powers SW, Bentti A-L. Headache July/Aug 1999;39:481-485). (Respond: Dr Ton J deGrauw, Division of Neurology, Children's Hospital Medical Center, 3333 Burnet Ave, Cincinnati, OH 45229).

COMMENT. The authors suggest that the IHS criteria for pediatric migraine should be revised, and the duration factor removed or made a minor diagnostic criterion. Many children with a shorter duration and a number with a very long duration headache still fit the diagnosis of migraine, using the modified criteria. The majority have bilateral, usually frontal, headache, and unilateral location is uncommon.

Prothrombotic risk factors in coexistent migraine and stroke. In 17 patients with coexistent disease, the prevalence of factor V Leiden (5.8%) and other prothrombotic genotypes was not significantly different from that determined in 107 patients with ischemic cerebrovascular disease without migraine, 106 migraine patients, and 202 control subjects. Prothrombotic tendencies do not increase the risk of stroke in patients with migraine. (Iniesta JA, Corral J, Gonzalez-Conejero R, Rivera J, Vicente V. Prothrombotic genetic risk factors in patients with coexisting migraine and ischemic cerebrovascular