This child had denervation of the IX, X and XI cranial nerves, absent gag reflex, speech problem, but no complaint of headaches was recorded.

**ICE CREAM HEADACHE**

The characteristics of cold induced headaches in a group of migraine patients were compared with the usual migraine headaches and with cold induced headaches in a control population, in a study using a retrospective questionnaire at the City of London Migraine Clinic, London, England. The control patients were preclinical medical and dental student volunteers. Seventeen percent of the migraine patients and 46% of the students developed headache following palatal application or a swallow of ice cream. "Ice cream headache" was less common in migraine patients than the controls, and the pattern of the headache induced by ice cream was similar in the 2 groups. Only 2 of the 12 migraine patients who developed ice cream headache on testing experienced the headache at a similar site to their usual migraines (Bird N, MacGregor EA, Wilkinson MIP. Ice cream headache - site, duration, and relationship to migraine. *Headache* Jan 1992; 32:35-38).

(Reprints: Dr. E. Anne MacGregor, The City of London Migraine Clinic, 22 Charterhouse Square, London EC1M 6DX, England.)

**COMMENT.** This study suggests that ice cream headache is common but may be less common in migraine patients than the general population. These findings are in contrast to some previous studies showing that 93% of migraine patients reported ice cream headaches compared with 31% of non headache controls (Raskin NH, Knittle SC *Headache* 1976; 16:222-225).

The precipitating factors noted in 6 of 51 Nigerian children with migraine were fatigue in 3, lack of sleep in 2, and milk chocolate drink in 1. Ice cream was not noted as migraine precipitant in this study from Kano, Nigeria (Okogbo ME. Migraine in nigerian children: a study of 51 patients. *Headache* Nov 1991; 31:673-676). Haemoglobin genotype obtained in 41 cases was AA in 66% and AS in 34%. The prevalence of haemoglobin AS was higher than in the general population (25%).

**MYASTHENIA GRAVIS**

**PROGNOSIS OF MYASTHENIA GRAVIS**

The prognosis of myasthenia gravis (MG) was assessed retrospectively using life table analysis in 844 patients followed up for a mean period of 5 years in 3 neurological centers in Milan, Rome and Pavia, Italy. The patients were aged from 2 to 90 years with a mean of 45 years. The onset of symptoms peaked in the young and middle age groups, and the commonest age at onset was between 20 and 39 years. The proportion of females progressively decreased with age. Sixty-two percent of patients received
steroids, 30% anticholinesterase, 21% immunosuppressant drugs (azathioprine), and 66% had thymectomy. There was an inverse correlation between age at onset of symptoms and disease duration at diagnosis and complete remission of MG. Patients with symptoms for less than 1 year at diagnosis had the best outlook with 15-25% remissions by 5-10 years. Thymectomized patients had a significantly higher chance of complete remission than non-thymectomized (15% vs. 8% at 5 years). The earlier the operation, the better the chance of remission. The cumulative probability of complete remission was 1% by 1 year, 8% by 3 years, 13% by 5 years, and 21% by 10 years (Beghi E et al. Prognosis of myasthenia gravis: a multicenter follow-up study of 844 patients. J Neur Sci Dec 1991; 106:213-220). (Correspondence: Dr. Ettore Beghi, MD, Instituto di Ricerche Farmacologiche "Mario Negri", Via Eritrea 62, I-20157 Milan, Italy.)

COMMENT. Seventeen percent of the patients in this study were less than 20 years of age at the onset of symptoms. The chance of complete remission is greater in younger patients with mild symptoms at onset and with shorter disease duration at diagnosis. The efficacy of thymectomy might be partly related to the younger age of the patients and the shorter disease duration at the time of operation.

In a series of 35 patients with juvenile myasthenia gravis reported from the Massachusetts General Hospital, Boston, MA (Millichap, JG, Dodge PR. Diagnosis and treatment of myasthenia gravis in infancy, childhood and adolescence a study of 51 patients. Neurology 1960; 10:1007-1014), 21 underwent thymectomy and of these 18 (86%) showed complete or partial, type A (drug therapy discontinued) and type B (drug therapy continued) remissions. A similar response to medical therapy alone was obtained in 13 (93%) of 14 patients of this series, and the results were comparable with those observed in patients treated surgically. Drug therapy was discontinued and the remission was complete in 6 (29%) of thymectomized patients compared to 2 (14%) of the patients treated only with cholinergic drugs. Until patients may be allocated for thymectomy at random and a large control series is followed, the merits of surgical therapy cannot be assessed with certainty. Spontaneous remission is another factor that complicates the selection of MG patients for surgery.

An unusual association of early onset juvenile myasthenia gravis and premature birth is reported by Evans OB et al. (Pediatr Neurol Jan/Feb 1992; 8:51-53). In a series of patients reported by Fukuyama Y et al. (Paediatr Univ Tokyo 1970; 18:57-68), 34 of 76 children had an early onset of juvenile myasthenia gravis.

In contrast to juvenile myasthenia gravis which generally responds to anticholinesterase medication, congenital or hereditary myasthenia is often refractory. A trial of 3,4 diaminopyridine, a drug that enhances acetylcholine release from motor nerve terminals, showed
benefit and a highly significant increase in muscle strength in 16 patients treated. The drug was useful when given alone or in combination with anticholinesterase medication (Palace J et al. 3,4-diaminopryididine in the treatment of congenital (hereditary) myasthenia. J Neurol Neursurg Psychiatry Dec 1991; 54:1069-1072).

MOVEMENT DISORDERS

DYSKINETIC AND DYSTONIC CEREBRAL PALSY

The records of 794 cases of congenital cerebral palsy (CP) seen between 1955 and 1986 in the Cheyne Centre for Children with Cerebral Palsy, Chelsea, London were analyzed. Of 219 cases with dyskinetic or dystonic CP 57 had kernicterus and these were excluded from the analysis. Of the remaining 162 patients birth weight was below the expected mean in two-thirds. The frequency of abnormal births was similar in those born before 37 weeks (32%) and those born at term (30%). Abnormal birth was more common in dyskinetic CP (38%) than in dystonic CP (19%). In kernicterus cases the birth was abnormal in 3.6%. There was a clear positive relationship between abnormal birth and reported asphyxia. A severe outcome was as common in those with an abnormal birth, abnormal neonatal history, or respiratory problems as in those without these complications. The authors concluded that 1) there was no relationship between birth weight or abnormal birth or asphyxia and the ultimate clinical severity of the children and 2) abnormal birth and asphyxia are not direct causes of cerebral damage, but expressions of a preexisting condition resulting in susceptibility to the stress of birth (Foley J. Dyskinetic and dystonic cerebral palsy and birth. Acta Paediatr Jan 1992; 81:57-60). (Correspondence: Dr. John Foley, The Old House, 54 Ashacre Lane, Worthing, W. Sussex BN13 2DE, UK.)

COMMENT. In contrast to the conclusions drawn by Dr. Foley, Hagberg B and Hagberg G in their invited commentary of this paper suggest that in the majority of cases of dyskinetic and dystonic CP negative birth events and birth asphyxia in particular, are the direct cause with several predisposing factors. They allude to the value of MRI studies in the timing of basal ganglia pathology in these cases (see also Ped Neur Briefs Jan 1992; 6:3-4).

HORMONAL INFLUENCES ON TOURETTE SYNDROME

A survey of 47 women with Tourette syndrome reported from the Section of Pediatric Neurology, Children's Hospital of Wisconsin, Milwaukee, WI had an increase in tics beginning at menarche and recurring premenstrually. A comparable number of patients had a decreased tic frequency during the postmenstrual period. The average age of symptom onset was 8 years and the average age of diagnosis was 13.8 years. No significant relationship was found between a change in tic frequency and other non-menstrual cycle-related female hormonal states such as premenstrual syndrome, oral contraceptive use, pregnancy and menopause (Schwabe MJ,