

early childhood results in cognitive deficits whereas injury in later childhood is more likely to result in behavioral problems. The findings indicate an increased vulnerability of the young brain and a lack of evidence to support theories of brain plasticity. Children with a history of brain injury before, at birth or before 2 years of age are at risk of persistent impairments of learning that require early interventional therapy.

HEADACHE DISORDERS

MIGRAINE AND SUICIDAL IDEATION IN ADOLESCENTS

The relationship between migraine and suicidal ideation (self-reported thoughts of suicide-related behaviors) in a sample of young adolescents was determined in a study at Taipei Veterans General Hospital, Taipei, Taiwan. Students in three middle schools completed a validated headache questionnaire, the Adolescent Depression Inventory (ADI), and the Pediatric Migraine Disability Assessment questionnaire. The questionnaires assessed the headache profile during the past 3 months and symptoms of depression in the past month. "I think about killing myself" was the indicator of self-reported suicidal ideation. Suicidal ideation in the past month was reported in 8.5% of 3,963 adolescents (2040 male and 1923 female; mean age 14.0 +/- 0.9 years) who completed the study. According to the International Classification of Headache Disorders, 928 subjects (23.4%) were diagnosed with migraine; 138 (3.5%) had migraine with aura, 346 (8.7%) migraine without aura, and 444 (11.2%) with probable migraine. The frequency of suicidal ideation was 6.2% in nonmigraine subjects compared to 16.1% in subjects with migraine ($p < 0.001$), and 23.9% in subjects with migraine with aura ($p < 0.001$). Subjects with suicidal ideation had a higher frequency of headache and headache-related disability. After controlling for depression and sociodemographic factors, the association of migraine and suicidal ideation occurred only for migraine with aura ($p = 0.025$) and high frequency headache (> 7 days/month; $p = 0.013$), but not for migraine without aura, probable migraine or for migraine disability score. (Wang S-J, Fuh J-L, Juang K-D, Lu S-R. Migraine and suicidal ideation in adolescents aged 13 to 15 years. **Neurology** March 31, 2009;72(13):1146-1152). (Respond and reprints: Dr Shuu-Jiun Wang, The Neurological Institute, Taipei Veterans General Hospital, Taipei, 112, Taiwan. E-mail: sjwang@vghtpe.gov.tw).

COMMENT. One in four young adolescents with migraine with aura and one in four with frequent headaches (> 7 days/month) report suicidal ideation. The frequency of suicidal ideation is one in 2.5 for subjects with both risk factors. The association of migraine with aura and suicidal ideation is independent of depression and pain. Alterations of the serotonergic system have been demonstrated in subjects with both migraine with aura and suicide. (Post RM et al. **Neurology** 1994;44 (suppl 7):537-547). The current authors have previously shown that adolescents with chronic daily headaches (> 15 days/month) are at increased risk of suicide. (Wang SJ et al. **Neurology** 2007;68:1468-1473). The influence of prophylactic medications such as antiepileptics and antidepressants was not evaluated in this study, but chronic prophylactic migraine therapy was used infrequently in this age group. The study demonstrates the importance of evaluation for risk factors of suicidal thoughts in young adolescents with migraine with aura.

Chronic pain conditions of various types (migraine, back problems, arthritis, and fibromyalgia) are associated with suicidal ideation and suicidal attempts, and migraine has the strongest link (Ratcliffe GE et al. **Clin J Pain** 2008;24:204-210). In this Canadian study, data were derived from a large nationally representative sample, whereas the Taiwan study was limited to schoolchildren between 13 and 15 years, and questionnaires were validated for this population. The subjects were not referred specifically for headache or migraine and the findings were not explained by a recruitment bias. (Amouroux R et al. **Encephale** 2008;34:504-510. Epub 2007 Dec 26).

REPETITIVE DAILY BLINDNESS WITH HEMIPLEGIC MIGRAINE AND *SCN1A* MUTATIONS

Two novel *SCN1A* mutations are identified in two unrelated families with familial hemiplegic migraine and a unique phenotype of elicited repetitive daily blindness, in a report from Hopital Lariboisiere, and other centers in Paris, France, and Geneva, Switzerland. The proband of family 1 is an 18-year-old woman with recurrent attacks of hemiplegic migraine since age 6, and repeated, daily (up to 10 times per day), stereotyped bilateral transient blindness of maximum 10 sec duration. During the attack, pupils are dilated with absent direct and indirect pupillary reflexes. Visual symptoms are spontaneous or triggered by rubbing the eyes. Blindness occurs without associated headache or other neurologic symptoms, and independently of attacks of hemiplegic migraine that occur irregularly from a maximum of 2 per week to one every 2 years. The neurologic, visual acuity, electroretinogram, and fundus examinations are normal outside the attacks. Brain MRI shows a hypersignal T2-WI lesion in the territory of the right inferior cerebellar artery and a few ischemic sequelae in the left posterior inferior cerebellar artery territory. Parenchymal cerebellar lesions were also present on CT at 6 years of age. The proband's mother, sister, and maternal grandfather had hemiplegic migraine without episodic blindness. Family 2 with the association of episodic blindness and hemiplegic migraine in 4 out of 5 affected members was reported previously. The transient daily blindness is suggestive of a retinal spreading depression, triggered by rubbing the eyes. (Vahedi K, Depienne C, Le Fort D et al. Elicited repetitive daily blindness. A new phenotype associated with hemiplegic migraine and *SCN1A* mutations. **Neurology** March 31, 2009;72:1178-1183). (Respond and reprints: Dr Katayoun Vahedi, APHP-Lariboisiere Hospital, Department of Neurology, 2 rue Ambroise Pare, 75010 Paris, France. E-mail: katayoun.vahedi@lrb.aphp.fr).

COMMENT. Familial hemiplegic migraine, a genetically heterogeneous disorder, is linked to three genes, including *SCN1A*. The unique eye phenotype of elicited repetitive daily blindness cosegregating with familial hemiplegic migraine is previously reported in a single Swiss family. The present report identifies *SCN1A* mutations in both the Swiss and French families with this unique phenotype, and excludes mutation in *CACNA1A* and *ATP1A2*, genes most frequently involved in familial hemiplegic migraine. *SCN1A* is also involved in febrile seizures, GEFS+ and Dravet syndrome.