Head Trauma Precedes Confusional Migraine

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LOS ANGELES — Acute confusional migraines in children and adolescents are most common in young boys and are often associated with head trauma, Dr. A. David Rothner reported at the annual scientific meeting of the American Headache Society.

A review of 90 cases—22 from the Cleveland Clinic and 68 from a literature review—portrayed clear patterns of symptoms that may appear alarming to pediatricians and emergency department physicians. Confusion lasted from 10 minutes to 2 days, with the majority of patients remaining confused for 4 hours or less, but 25 (28%) were confused for 5-8 hours.

Not all children described headache, but some were so confused they were unable to communicate information about their symptoms. All were disoriented, 72 had amnesia, 63 had speech impairment, 49 had agitation, 49 had emesis, 36 had visual disturbances, and 33 had somnolence.

Notably, 74 children had a family history of migraine, and 52 had a personal history of migraine.

Acute confusional migraines were recurrent in more than a third of patients.

Boys aged 5-12 years, followed by boys aged 13-17 years, were most often affected. Proximal head trauma, often very mild, was present in more than a third of cases.

"When we're talking about confusion, for the most part we're not talking about a little bit of confusion," said Dr. Rothner, a pediatric neurologist and director of the Pediatric/Adolescent Headache Clinic at the Cleveland Clinic.

As an example, he described the case of a 14-year-old girl who experienced an aura followed by a bifrontal headache and a 5-hour period of progressive disorientation, confusion, incontinence, bizarre behavior, and extreme combativeness that included kicking, screaming, scratching, and attempting to bite medical personnel. She was unresponsive to benzodiazepines. Once the confusion passed, the patient had no recollection of these events.

Her parents recalled two previous episodes that were less severe and involved nausea and vomiting. "There seems to be something special about this group of patients that predisposes them to recurrent attacks of a very, very unusual phenomenon," Dr. Rothner noted.

Boys aged 5-12 years, followed by boys aged 13-17 years, were most often affected. Head trauma was present in more than one-third of cases.

Toxicology screens in 76 patients were all negative, as were examinations of cerebrospinal fluid in 29. Computed tomography or MRI in 63 patients was normal in 57 and showed unrelated abnormalities in 6. Electroencephalograms were performed in 55 patients and were abnormal in 44, with the majority showing unilateral or bilateral slowing.

"The differential diagnosis can be the most difficult and problematic issue," Dr. Rothner explained. "If there is any doubt regarding the condition, transportation to an emergency room or trauma center is wise."

In the short term, "Care must be taken to make sure that one does not overlook a more ominous problem, like an epidural or subdural hematoma," he said in an interview following the meeting.

A careful description of the injury may be helpful in ruling out concussion. "Concussion often but not always involves a bigger hit and often but not always, immediate loss of consciousness," he said.

In these cases, mild trauma often occurred quite some time before the development of migrainelike symptoms, and then confusion. Visual disturbances were much more prevalent in patients with acute confusional migraine than in children with typical migraines.

Until the etiology is known, he cautioned against sedating patients, although he acknowledged that the agitation and confusion can be difficult to manage. Dr. Rothner also hesitates to prescribe triptans in the presence of a neurologic deficit.

Providing pain relief and antiemetics are key in the acute setting, and patients and families should be counseled about the high rate of recurrence of acute confusional migraine. ■