

Headaches Persist Long Term in TBI Patients

BY SHERRY BOSCHERT

FROM THE ANNUAL MEETING OF THE
AMERICAN HEADACHE SOCIETY

LOS ANGELES — Nearly half of 377 patients with traumatic brain injury reported postinjury headaches that persisted during a year of follow-up in a prospective study.

The prevalence of headaches in the cohort increased from 18% before the injury to 46% soon after injury, according to patient reports during rehabilitation hospitalization for TBI. In phone interviews after discharge at 3, 6, and 12 months post injury, headaches were reported by 48%, 44%, and 46%, respectively.

The persistence of the headaches took senior investigator Dr. Sylvia Lucas and her colleagues by surprise, because previous data have suggested that 18%-22% of posttraumatic headaches are chronic problems.

Dr. Lucas said that she and her associates also were surprised that most of the headaches in the current study were classified as migraine or tension-type headache, that the presence of preinjury headache seemed to be a risk factor for postinjury headache, and that women were at higher risk for postinjury headache.

The findings on types of headache and their persistence could have "important implications for treatment" of posttraumatic headache, said Dr. Lucas, founder and director of the headache center at the

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Major Finding: Headaches, initially reported by 46% of patients soon after injury, still occurred in 48% at 3 months, 44% at 6 months, and 46% at 12 months.

Data Source: Prospective study of 377 consecutive admissions to acute rehabilitation facilities for traumatic brain injury.

Disclosures: Dr. Lucas said she has no relevant conflicts of interest. The National Institute on Disability and Rehabilitation Research funded the study.

University of Washington, Seattle.

Posttraumatic headache is one of the most common persisting symptoms after TBI, occurring in 30%-90% of patients, previous studies suggest. Although most familiar as a salient symptom in soldiers who were exposed to explosive blasts, "it's becoming of great interest in adolescent children who've been in sports concussion injuries," she said at the meeting.

The study included consecutive admissions of patients older than 16 years at seven acute rehabilitation facilities for TBI, excluding 79 patients who could not provide consent or answer questions themselves without their families' acting as proxy.

The cause of injury was vehicular trauma in approximately 56%, falls or impacts with flying objects in 28%, violence in 9%, and sports or pedestrian accidents in 4% each. (Percentages were rounded.)

Based on descriptions of symptoms

by patients who reported headache, 60% of preinjury headaches were classified as migraine or probable migraine, compared with 48% soon after injury and 54% a year later. Although 25% of preinjury headaches and 37% of headaches soon after injury were deemed "unclassifiable" by investigators using patients' descriptions, over time they gained features that allowed them to be classified in one of the primary headache classifications, so that the proportion of "unclassified" headaches fell to 19% by 12 months post injury.

"Mostly, patients were classified as migraine with or without aura, or as tension-type headache, which is also surprising given the fact that most of these were vehicular injuries," Dr. Lucas said. Headaches were classified as tension-type in 12% before injury, in 7% soon after injury, and in 19% at 12 months. Headaches were classified as cervicogenic in 4% before injury, in 8% soon after injury, and in 5% at 12 months.

Among patients who said they suffered headaches before the injury, 48% reported postinjury headache, compared

with 23% of patients who said they did not have headaches before the injury. "Preinjury headache may be a risk factor for posttraumatic headache. This may argue for a common underlying mechanism," Dr. Lucas said.

The cohort was 71% male and 75% white. Patients had an average age of 43 years, and 84% were able to be discharged to home. The injury caused posttraumatic amnesia for less than a day in 7% (indicative of a milder head injury), for 1-7 days in 21%, for 8-28 days in 42%, and for 29 or more days in 30%.

"This was primarily a male group; however, along all the time points studied—at baseline, 3 months, 6 months, and 12 months—there was a significant difference in women having more posttraumatic headache than men," as well as a higher incidence of preinjury headache, she said. About 40% of men had headache at all follow-up times after injury, vs. 60% of women.

A physician in the audience asked if there was any relationship between insurance claims and reports that the headaches were persisting. "At the time of our study, that information was not available," she responded.

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More attention is being directed to adolescent children who've been in sports concussion injuries.

DR. LUCAS

Injury History Associated With Comorbidities in Migraineurs

BY SHERRY BOSCHERT

FROM THE ANNUAL MEETING OF THE
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LOS ANGELES — Migraine patients with a history of head or neck injury reported more frequent and disabling headaches and higher rates of a variety of comorbidities than did migraineurs without head or neck injuries in a survey of 1,348 adult patients.

Some migraine features dif-

fered significantly between patients with or without a history of head or neck injury, according to responses to electronic questionnaires that were completed by patients seen in clinics for their migraine headaches, Dr. Gretchen E. Tietjen reported.



The prevalence of depression was 52% in the injured group vs. 35% in the noninjured group.

DR. TIETJEN

In the survey, Dr. Tietjen and

her associates gathered information from 373 patients with a history of head or neck injury. They averaged 16 days with headaches per month, compared with 13 days per month in 975 noninjured patients. Chronic headaches (defined as headaches occurring more than 15 days/month) were a problem for 42% of patients with a history of injury and 31% of those who had not been injured.

Scores on the Headache Impact Test-6 averaged 60 in the injured group and 54 in the noninjured group, suggesting a greater impact of headaches on daily life in the injured group. Comparing the injured group with the noninjured group, prevalence rates were 52% vs. 35% for depression, 40% vs. 27% for anxiety, 37% vs. 21% for arthritis, and 30% vs. 21% for irritable bowel syndrome. Other differences in prevalence rates were 16% vs. 7% for fibromyalgia, 11% vs. 6% for sleep apnea, 9% vs. 5% for interstitial cystitis, and 17%

VITALS

Major Finding: Adults with migraines and a history of head or neck injury had more frequent headaches than did migraineurs without injuries (16 vs. 13 days/month, respectively) as well as disabling headaches (mean score on the Headache Impact Test-6, 60 vs. 54, respectively) and higher rates of various comorbidities.

Data Source: Self-administered electronic questionnaires completed by 1,348 clinic patients.

Disclosures: Dr. Tietjen has received research grants from GlaxoSmithKline and consulting fees and honoraria from MAP Pharmaceuticals. A grant from the American Headache Society's Women's Issues Section funded the study.

vs. 10% for uterine fibroids, respectively. Each of these differences between groups was statistically significant.

Patients developed symptoms of these comorbidities and were diagnosed at an earlier age if they had a history of injury than if they had not been injured. The onset of depression, anxiety, sleep apnea, and fibromyalgia occurred at a significantly earlier age in those who had been injured than in those who had not, said Dr. Tietjen, professor and chair of neurology at the University of Toledo (Ohio).

Patients with a history of injury were significantly more likely to have a history of sub-

stance abuse (24%), compared with noninjured patients (16%), and to have an education level no higher than high school (32% vs. 25%, respectively).

Among patients with a history of head or neck injury in whom the timing of the injury was known, the 45 patients whose migraines started concurrently with the injury were less likely to have migraine with aura, compared with the 170 patients whose migraines started prior to the injury or the 109 patients whose migraines began after the injury. The migraines came with aura in 22% of the subgroup with concurrent-onset migraine, 45% of the

subgroup with migraine before their injury, and 47% of those with migraine after their injury.

Patients in the concurrent-onset group also were significantly younger (average age, 40 years), compared with the patients whose migraines started before the injury (42 years) or patients whose migraines started after injury (44 years).

The questionnaire did not ask about the nature or causes of the head and neck injuries. Patients were asked about the number of head and neck injuries, their age at the first one, their age at the worst injury, whether or not there was a loss of consciousness associated with the injury, and when they were diagnosed with migraine headache.

A physician in the audience asked whether the head injuries might have contributed to the development of psychosomatic syndromes that increased the prevalence of comorbidities. Dr. Tietjen doubted that this was the case, given the wide nature of the comorbidities that included conditions such as uterine fibroids.

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