

Headache Sidelines Two-Thirds of Soldiers

BY MICHELE G. SULLIVAN

FROM CEPHALALGIA

Soldiers evacuated from current war zones with a headache diagnosis are unlikely to return to duty, a new retrospective study has found.

About a third of these soldiers were able to return to duty, even after receiving treatment, Dr. Steven P. Cohen and his colleagues reported (*Cephalalgia* 2011 Oct. 12 [doi:10.1177/0333102411422382]).

Headaches account for a significant

burden in units and for health care providers deployed to combat zones, wrote Dr. Cohen of Johns Hopkins University, Baltimore, and the Uniformed Services University of the Health Sciences, Bethesda, Md. "The overall [return-to-duty] rate of 33.6% is one of the lowest among all injury types, and to some degree reflects the observation that a large percentage of headaches were incurred during combat operations."

Headache is the most common neurologic symptom in the world, he said, with some studies claiming that up to 70% of people are affected. But recent studies of soldiers deployed in the current wars suggest that the headache burden among recently deployed soldiers may be even larger. In addition to risking a combat injury, soldiers are exposed to constantly high stress levels. The combination is a perfect recipe for severe headaches.

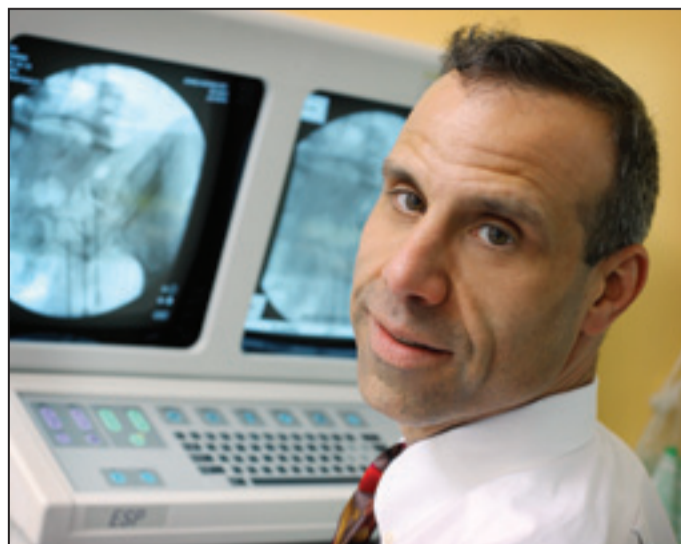
"There are incredible psychosocial stressors involved in being deployed," he said. "In addition to the daily possibility of being injured or killed, soldiers worry about family separation and about their colleagues who serve along with them. And this is happening in young people in whom sophisticated coping mechanisms have not yet been developed."

To understand how headache might affect the strength and stability of military units, Dr. Cohen and his coauthors reviewed the records of 985 soldiers who had been evacuated from the wars during 2004-2009 with a primary diagnosis of headache.

Headache diagnoses fell into seven categories: postconcussive (33%); tension type (11%); migraine (30%); cervicogenic (9%); occipital neuralgia (5%); cluster (2%), and "other," a category that included tumor, vascular pathology, psychogenic headache, substance abuse, and cerebrovascular events presenting as headache.

The soldiers' mean age was 30 years; most (88%) were men. Almost half of the headaches (48%) were related to physical trauma; 3% were deemed psychological or emotional, 3% as environmental or infectious, and the remainder were of other etiologies or unknown. In all, 22% of the soldiers reported a prior history of headache.

Headaches were deemed to be battle related if they were sustained in a combat operation (31%). Another 62% were



COURTESY KEITH WELLS

Headache has replaced respiratory and infectious disease as a primary reason for evacuation, said Dr. Steven P. Cohen.

not related to combat, and data were unavailable for the remainder.

Episodic headache was most common (52%); 39% had constant headache. The authors did not find frequency data for 9% of the group.

Once evacuated, treatment varied widely among the group. Nonsteroidal anti-inflammatory drugs were the most commonly used medications (77%), followed by antidepressants (64%), opioids (34%), anticonvulsants (29%), and triptans (27%).

Other medical treatment included beta-blockers (11%) and calcium channel blockers (2%). Many soldiers (36%) were on multiple therapies, and 9% received injections or nerve blocks. Another 7% received an alternative medicine treatment and 4% received no treatment.

In multivariate regression analyses of the factors associated with return to duty, the investigators controlled for age; sex; military branch; headache diagnosis and etiology; treatment; psychiatric and brain injury history; family and personal headache and pain history; and smoking.

Headache type was significantly associated with return to duty. A diagnosis of occipital neuralgia lowered the odds of returning to duty by 80%, compared with tension-type headache, the reference diagnosis.

Other diagnoses that lowered the odds

of a soldier's returning to duty included postconcussive headache (by 67%), cervicogenic headache (by 60%), and co-existing traumatic brain injury (by 50%).

The method of treatment also affected a soldier's return to duty. Compared with no treatment, the odds of returning to duty were significantly lowered by

59% with opioids and by 74% with beta-blockers.

Because the study examined only cases with a primary diagnosis of headache, it probably understates the disorder's true impact, Dr. Cohen said. Posttraumatic stress disorder, musculoskeletal injuries, concussions, and motor vehicle accidents – all very common wartime injuries – can cause chronic headaches.

Whether soldiers return to the battlefield, or are kept on active duty and treated outside the war theater, the cost to the military is high, he said.

"We now know that two-thirds of those who leave with headache don't come back, and even if they do, they may have limitations. They might not be able to go on foot patrol or wear their Kevlar gear – but they are still using resources. And for every soldier who is evacuated, the unit goes short and someone else has to be deployed."

Headache treatment can last for months, he added, tying up military medical centers during active duty and after discharge.

"They continue utilizing medical and military resources the whole time they are being treated, and this costs America a huge amount of money," he said. "Even if all our troops would pull out tomorrow, we will be paying for this for the rest of our lives, as will the soldiers who are injured." ■

VITALS

Major Finding: Some 66% of soldiers who were evacuated from war theaters for headache were never able to return to active duty on the front.

Data Source: A retrospective review of almost 1,000 soldiers in Operations Iraqi Freedom and Enduring Freedom who were taken off the battlefield with a primary diagnosis of headache.

Disclosures: The study was funded by a grant from the John P. Murtha Neuroscience and Pain Institute, the U.S. Army, and the Army Regional Anesthesia and Pain Medicine Initiative. Dr. Cohen had no financial declarations.

'Shocking Percentage' of Patients on Triptans Despite Risks

BY BETSY BATES

FROM THE ANNUAL MEETING OF THE AMERICAN NEUROLOGICAL ASSOCIATION

SAN DIEGO – Triptans are routinely prescribed to migraine patients who have a history of cardiovascular disease, according to evidence from a large medical claims database study.

Serotonin (5-HT) receptor agonists are among the most commonly prescribed medications for migraine patients, but

are contraindicated in patients with a history, signs, or symptoms of ischemic cardiac, cerebrovascular, or peripheral vascular syndromes; any other underlying cardiovascular disease; or uncontrolled hypertension, according to package inserts.

Daisy S. Ng-Mak, Ph.D., of Merck Sharp & Dohme, and her colleagues randomly selected 10 representative health plans from MedAssurant Inc.'s MORE² (Medical Outcomes

for Research on Economics and Effectiveness) registry, which contains records from 2.5 million people. They found that 8% of 121,286 migraine patients had a cardiovascular contraindication, such as a history of myocardial infarction or stroke or documented prescriptions for cardiovascular disease.

Among those patients, 22% had received a prescription for a triptan during 2009, the authors reported at the meeting.

The MedAssurant MORE² registry includes claims data on patients aged 18-64 years.

Dr. Ng-Mak and her coauthors identified migraine patients through chart diagnoses, prescription claims, or treatment of at least two headaches at least a week apart. They similarly found cardiovascular contraindications by either diagnosis or prescription claim data.

Among patients aged 18-49 years with such a cardiovascular

contraindication, 24% received a triptan prescription.

"Especially ... concerning," the authors noted, was the fact that 21% of older migraine patients with cardiac contraindications at the time of the study had received a triptan prescription.

These 50- to 64-year-olds "may be exposed to other risks" that heighten cardiac concerns, Dr. Ng-Mak said.

In an interview following the *Continued on following page*