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Tension-type headache

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Tension-type headache (TTH) is the most common headache encountered, with most people experiencing TTH at some time in their lives. Diagnostic criteria are somewhat vague and nonspecific, with TTH mainly defined by the absence of associated migrainous features. Generally, TTH does not cause impairment, and sufferers can go about their daily lives. TTH can be divided into episodic and chronic, with the chronic variety being much more likely to come to medical attention. Pathophysiology is still largely unknown, and TTH is associated with a greater chance of comorbid anxiety disorders and depression. Treatment involves patient education and consideration of medication and nonmedication options. The mainstays of treatment are the intermittent use of simple analgesics and nonsteroidal anti-inflammatory medications. The most commonly used prophylactic options are the tricyclic antidepressants. Relaxation therapy and biofeedback are clearly beneficial as well. The practitioner is cautioned that apparent TTH may mimic secondary headache disorders hence one must be cautious with the diagnosis, especially in older individuals and new onset headache.

Tension-type headache (TTH; often abbreviated to tension headache) is the most common headache experienced. However, despite being a major health problem, it does not receive appropriate attention from the medical community or lay public.[1,2] TTH is a featureless headache that is defined by the absence of migrainous features (Table 1). The practitioner should be aware that this headache is extremely common and generally does not cause impairment. TTH is the milder end of a spectrum of primary headache, that is, a primary disturbance of the pain system of the head. As one moves along this spectrum, associated features more notable for migraine start to appear, such as nausea, throbbing, and photo/phonophobia. We do a disservice to patients if we do not explain this concept and how the head pain system is very sensitive and can be active without provocation.

TTH is regarded by many as part of normal life experience with no untoward consequences. The complaint, which has no corroborating signs and relies entirely on clinical symptoms for diagnosis, may be wrongly viewed as a battle of mind over matter, with those of weak character succumbing. Health care professionals and the public alike may have difficulty empathizing if they carry such attitudes. The most benign sounding head symptoms can be terrifying to those who do not have insight into their symptoms. Our role as health care providers is to provide that explanation and reassurance along with suggested treatment options. Sometimes explanation alone is the greatest treatment. Even migraineurs experience difficulty obtaining recognition for their commonly impairing disorder and, therefore, it is no wonder that TTH tends to be ignored. Also, for a long time headache was thought of as more a women's disorder which, unfortunately, may have contributed to the lack of due attention to TTH as well as migraine; it is hoped that those days are over.

Classification and epidemiology

The original Ad Hoc Committee on Headache Classification published in JAMA (1962) used the term muscle-contrac-

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Table 1 Diagnostic criteria for TTH (when headache is not more easily explained by another disorder)[4]

A. At least 10 episodes fulfilling criteria B–D
B. Headache lasting from 30 minutes to 7 days
C. Headache has at least 2 of the following characteristics:
- Bilateral location
- Pressing/tightening (nonpulsating) quality
- Mild or moderate intensity
- Not aggravated by routine physical activity, such as walking or climbing stairs

D. Both of the following:
- No nausea or vomiting (anorexia may occur)
- No more than 1 episode of photophobia or phonophobia

Episodic TTH diagnosed if headaches occur less than 15 days a month.
Chronic TTH diagnosed if headaches occur for at least 15 days a month.

tion headache, stating that the word "tension" is ambiguous and unsatisfactory![3] At the time they recognized the frequent association with contraction of skeletal muscles, which was "usually part of the individual's reaction during life stress". Mentally or emotionally disruptive conditions (stress) are potential aggravators of many conditions of which TTH is one, and the somewhat pejorative commentary of the Ad-Hoc committee likely contributed to the lack of focus on TTH in the following decades. The term TTH was preferred by the First Classification Committee of the International Headache Society, who published the International Classification of Headache Disorders (ICHD) in 1988, which were left unchanged by the edition 2 of the ICHD (2004) because there is still considerable uncertainty as to the pathophysiology. The poorly understood pathophysiology of TTH does itself contribute to the invisibility of TTH.

The current ICHD classification divides TTH into infrequent episodic, frequent episodic and chronic, which apart from their frequency have similar clinical features.[4] TTH is well known as a mimic of other primary and secondary headaches. This further adds to the recognition problem of TTH. Infrequent tension-type headache has minimal impact on a patient's life and does not require much attention. The severity of TTH does however increase with frequency of headache. Of particular importance is chronic tension-type headache (CTTH), which is understood to have a more severe and socioeconomic impact than the episodic variety.[5] Chronic TTH may be part of a larger family of altered pain sensitivity syndromes that is not well defined at present. Specialty clinics often see patients with CTTH.

A Danish population study examining individuals older than the age of 40 found a 1-year prevalence of infrequent episodic TTH of 48%, frequent episodic TTH 34%, and CTTH 2%.[6] In the United States, the 1-year prevalence of episodic TTH is estimated at 38%.[7] Chronic TTH prevalence is approximately 2% to 3%, with more women than men affected. Most people with TTH do not seek care. The peak prevalence of TTH is in the fifth decade of life. It is common experience but underappreciated that headache patients attending clinic often have more than one type of ICHD diagnosis, and TTH tends to be forgotten.

Bigal and colleagues[8] reviewed 638 patients with chronic daily headache attending clinic. Only 1.6% had 1 ICHD diagnosis, 27.1% had 2 diagnoses, and the remainder had at least 3 diagnoses. Hence, more than 1 headache diagnosis is to be expected in the chronic daily headache population attending clinic. In another study Sanin, and colleagues[9] applied ICHD criteria to 400 headache clinic patients. Of the 110 subjects who fulfilled criteria for CTTH, 90% of these also had migraine. The reality for many migraineurs is they experience a spectrum of headache varying in intensity and features from day to day, many fulfilling the criteria for TTH also. Health care professionals with limited understanding or interest in headache disorders may attempt to simplify the situation by boiling down a complex clinic problem to just 1 diagnosis-migraine.

The study and understanding of TTH is not helped by differences in expert opinion on the definition of tension-type headache itself. The criteria as set forth in the ICHD allow for some migrainous features (with episodic TTH), which in the opinion of body of dissenting experts would include patients with a milder form of migraine without aura. Similarly some individuals coded as CTTH may have chronic migraine as CTTH criteria allow for 1 of-mild nausea, photophobia or phonophobia. Alternative criteria for TTH are included in the appendix of ICHD-2 which is more strict, reducing this problem. It is hoped that the alternate criteria will be compared with current ICHD-2 criteria is a scientific manner.

The authors of a 2002 Dutch study attempted to estimate the economic cost of THH and migraine in employees of a manufacturing company.[10] Sixty-one percent of 1781 employees returned questionnaires. During a 4-week period the economic cost of those with tension-type headache was US$4,318, a considerable amount, compared with US$8,996 for employees with migraine. The impairment with CTTH is complex, likely being influenced by psychiatric comorbidities of anxiety and mood disorders and other comorbid pain problems (such fibromyalgia). In addition, as defined by the ICHD, CTTH may have some migrainous features, such as mild nausea which can blend with a more migrainous type patient. Medication overuse which is all too common, contributes also to the CTTH impairment.

Pathophysiology

The scientific study of TTH has historically had poor funding, both from national bodies, such as the National Institutes of Health and also pharmaceutical companies. Few research groups have tackled TTH. This inevitably translates into a lack of laboratory and clinical studies, with the consequent limited understanding of TTH. A common con-