

TENSION-TYPE HEADACHE: MANAGEMENT

Chapter 80

General Approach to Treatment of Tension-Type Headaches

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Tension-type headache (TTH) is extremely common; its epidemiology is discussed in detail in Chapter 67. It is a large problem upon which the medical profession has had a small impact. This speaks to the observation that over-the-counter medication seems effective for most patients who see the need to take treatment at all, but also to the fact that our relative ignorance of the pathophysiology of this ubiquitous condition makes it difficult to treat rationally.

APPROACH TO THE PATIENT

The importance of a thorough history and examination in any patient with headache cannot be overestimated. It is essential to exclude other entities that present with nondescript headaches (secondary headaches), to recognize comorbid conditions (especially depression), and to establish whether the TTH coexists with migraine. A good history also affords an opportunity to discover trigger factors and to determine whether the headaches are being aggravated by overuse of medications. In most cases, particularly in patients with a long history of headaches and with nothing on enquiry or examination to suggest disease, the diagnosis of TTH can be made without special investigations—though clearly these should be done when necessary.

The very fact that the physician is taking an interest in the problem often has a therapeutic effect, particularly if the patient's understandable concern about serious disease (e.g., brain tumor) can be allayed. Explanation is crucial. It may be helpful to couch this in terms of a disturbance of the brain's pain-modulating mechanisms, so that normally innocuous stimuli are perceived as painful, with the secondary development of increased muscle tension, anxiety, and depression. It is usually better not to attribute the condition to a single mechanism such as "muscle spasm" or to employ the term "psychosomatic," which is frequently perceived negatively by the patient. The patient should be

told that cure of headaches is rare, but control is possible if both the physician and patient do their parts.

SELECTING TREATMENTS

Few controlled trials of medication have been done in patients with TTH. Most medications used have long been on the market, and there is little incentive for pharmaceutical companies to test them systematically or to develop new ones for this purpose. There are more trials of non-pharmacologic treatment. Many of the earlier trials were done in patients with diagnoses made by inconsistent criteria, who may have been unwittingly overusing analgesics (5). In most studies, the response rates are similar between therapeutic modalities and difficult to distinguish from the placebo effect exerted by a caring therapist (Table 80-1).

Before starting treatment, it may be useful to have the patient keep a written record of the frequency and severity of attacks and of the medication consumed for them. This will establish a baseline against which to measure progress, may reveal headache triggers, and may unmask medication overuse (patients frequently underestimate their drug use and are surprised by what the figures show).

Analgesic overuse, long known to worsen migraine, may also increase the frequency of TTH and render it refractory to treatment. Narcotic, butalbital, and/or caffeine-containing analgesics are particularly likely to do this, but there is a growing tendency to implicate simple analgesics and nonsteroidal antiinflammatory drugs (NSAIDs) as well. Triptans have been found useful for the TTH that occurs in people with migraine (3) and are also, when overused, capable of worsening headaches. Eliminating overuse of these medications is an important part of treatment.

Similarly, estrogenic hormones have long been implicated as potential exacerbators of migraine, but there is now evidence that they may also worsen TTH (4). The

TABLE 80-1 Summary of Treatment Options in Tension-Type Headache

	<i>Type of Treatment</i>	<i>Examples</i>	<i>Evidence Base</i>
Episodic tension-type headache	Acute pharmacologic	Acetylsalicylic acid, paracetamol (acetaminophen), NSAIDs	Fair to good
		Muscle relaxants	Weak
		Opiates, sedatives, etc.	None—don't use
	Acute nonpharmacologic	Behavioral (relaxation, etc.)	Good
		Local heat/cold/massage	Weak
	Prevention	Amitriptyline	Strong
Behavioral, biofeedback		Good to strong	
Acupuncture		Weak	
Chronic tension-type headache	Acute pharmacologic	Avoid daily or near-daily use of analgesics, sedatives, etc.—risk of medication-induced headaches. Withdraw when overuse present.	Strong
		NSAIDs <i>may</i> be less likely to induce headaches.	Uncertain
	Acute nonpharmacologic	Behavioral (relaxation, etc.)	Good
		Local heat/cold/massage	Weak
	Prevention	Amitriptyline	Strong
		Behavioral, biofeedback	Fair to good
		Muscle relaxants	Weak
Acupuncture		Weak	
Botulinum toxin		Weak	
Manipulation	Weak		

NSAIDs = nonsteroidal antiinflammatory drugs.

sex hormones in general are neurosteroids, and estradiol serves as a nociceptive modulator in the brain. If in a patient with TTH there is any suggestion that oral contraceptives or hormonal replacement therapy may be worsening the situation, consideration should be given to a trial of discontinuation.

Depression and TTH often coexist, sometimes as comorbidities and sometimes as cause and effect. In such patients, antidepressants often are better treatment than analgesics. The tricyclics are generally regarded as more effective for headaches than the selective serotonin reuptake inhibitors (1); they are also efficacious for TTH in patients without overt depression. "Stress" is ubiquitous and often implicated in TTH. If a patient is obviously excessively stressed, consideration should be given to behavioral therapies such as relaxation training or stress management education (5). Cognitive-behavioral therapies are at least as effective as pharmacologic treatment in TTH (2), and the combination has been shown to be better than either alone.

Many patients have strong preconceived notions about treatment; for example, some may reject psychologically based treatment, and others may dislike the idea of daily prophylactic medication. Many of these antipathies are based on previous experience, where treatments were

given suboptimally, for example, medication in too high or too low a dose. There is, unfortunately, little scientific evidence to guide the selection of treatment. Often, therapy proceeds on a trial-and-error basis, depending on the experience of the individual physician and on what modalities are readily available. This situation is likely to improve only when large randomized controlled trials have been done.

WHO SHOULD BE TREATED WITH WHAT?

This is discussed in the succeeding five chapters. As general principles (see Table 80-1):

- Patients with *episodic tension-type headache* (ETTH) who have significant consistent pericranial tenderness, who are young, and/or who are reasonably intact psychologically may do well with physical/behavioral modalities.
- Others with ETTH may respond to analgesics or NSAIDs, *with care taken to avoid overuse; opiates are to be avoided.*
- Those with ETTH who also have migraine may respond to triptans.

- Patients with *chronic tension-type headache* (CTTH) who are overusing medication usually will respond to nothing until the overuse is corrected.
- Patients with CTTH not overusing medications tend to improve with nightly amitriptyline.
- The role of “muscle relaxants” in TTH is not established.

In summary, the treatment of TTH does not yet have a firm scientific foundation in the form of large-scale placebo-controlled trials and “head-to-head” trials of the pharmacologic and nonpharmacologic modalities. Until such a foundation materializes, therapy is based on experience, common sense, and what few trials exist.

REFERENCES

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