

Headache Care for Practising Clinicians

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Headache Treatment Update, the letter

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Tension-type headache: acute and prophylactic treatment

Generalities:

Tension-type headache is the most common type of primary headache. Its prevalence in the general population ranges from 30 to 78% depending on the studies¹. Studies have demonstrated that the more severe sub-types of tension type headache strongly suggest a neurobiological basis and is not primarily psychogenic². The chronic form of tension-type headache (>15days/month, more than 3 months) is serious and is a cause of high disability with a high personal and socio-economic cost³. Frequent sufferers warrant expensive drugs, prophylactic medication and physical treatments. Peripheral pain mechanisms play a role in episodic tension-type headache and central pain mechanisms are involved in chronic tension-type headache⁴.

Diagnosis:

Refer to IHS criteria for diagnosis⁵. Tension-type headache may be a primary or a secondary headache. When the headache with tension-type characteristics occurs for the first time in close temporal relation to an underlying disorder that is known to cause a headache it is coded as a secondary headache. It is recognised that patients diagnosed with tension-type headache may suffer of a mild form of migraine without aura, and patients diagnosed with chronic tension-type headache may actually suffer of chronic migraine, or have both disorders. When it is uncertain how many attacks fulfil one or other set of criteria it is strongly recommended to use a diagnostic headache Diary. Medication overuse should be considered in these cases. For patients suffering of chronic tension-type headache and/or chronic migraine and/or medication overuse, the introduction of the terms probable tension -type headache and probable migraine have increased the confusion. All information is needed to decide which of the alternatives is the more likely. Chronic Tension-type headache evolves over time from episodic Tension -type headache. If it is daily and unremitting within 3 days, it is coded New Daily Persistent Headache (NDPH). Episodic and chronic Tension -type headache may present with or without pericranial tenderness^{6,7}. Increased pericranial tenderness recorded by manual palpation is the most significant abnormal finding⁸. It increases with the intensity and frequency of headache. Electromyograms are useless, imaging may be performed if it leads to changes in treatment. Examination of the headache and neck is mandatory.

Principles of Treatment:

In simple cases:

Episodic Tension-type headache with or without pericranial tenderness, usually does not create severe incapacity nor does it create concern to the patient. Therefore the patient may not be encouraged to consult a physician. If the patient consults, eliminate the precipitating factors, cervical dysfunction should be assessed, evaluate the patient's incapacity, use headache diaries, recommend medication with proof of efficacy, reassess if the condition increases in frequency. The patient may also suffer of migraine for which he should be treated specifically.

In more serious cases:

Patients diagnosed with tension-type headache may suffer of a mild form of migraine without aura, and patients diagnosed with chronic tension-type headache may actually suffer of chronic migraine, or have both disorders. Medication overuse should be considered in these cases. The treatment includes migraine specific medication detoxification if necessary, prophylactic medication and physical treatment if necessary. Expect to be consulted if frequency, severity and duration of headache increases.

Acute Pharmacotherapy

Several studies done in recent years fulfill the standards recommended for drug trials in tension-type headache (TTH) by the IHS: NSAID's are the drugs of first choice⁹. Ketorolac, diclofenac, or indomethacin are effective but less well studied. The number of studies concerning aspirin in the treatment of TTH is small, the efficacy of acetaminophen was indistinguishable from the effects of similar doses of aspirin. Peripherally acting muscle relaxants have not shown to have any significant effect in acute TTH. The low proportion of patients becoming pain-free 2 hours after dosing in most trials underscores the relative insufficiency of all of these drugs⁹.

Table 1

NSAID's	dose	Max/24hres	Quality of evidence
ASA*	Po 325-650mg	4,000mg	A
Ibuprofen*	Po 400-600mg	2,400mg	A
Naproxen*	Po 500mg	1,000mg	A
	Sup 500mg	1,000mg	A
Ketorolac	Po 10mg	30mg	B
	Im 10-30mg	30mg	B

Table 2

Non opiate Analgesic	dose	Max/24hres	Quality of evidence	Opiate Analgesic	dose	Max/24hres	Quality of evidence
Acetaminophen alone		Not recommended For migraine	B	Butalbital Aspirin Caffeine Codeine	50mg 325mg 40mg 15-30mg	6 Tabs	?
Acetaminophen* Caffeine	Po500mg + 65mg	6 Tabs.	A	Acetaminophen + codein	Po 500mg +8,15,30mg	6 Tabs.	A

* proven, pronounced statistical and clinical benefit in Migraine but not in TTH. All others, may be moderate benefit, not proven, ineffective or unknown benefit. Combination analgesics for TTH should be avoided because of the risk of dependency, abuse, and chronification of the headache.

Prophylactic Pharmacotherapy

Amitriptyline is still the only drug with proven efficacy in chronic tension-type headache (CTH). Controlled clinical trials suggest that SSRI's have no or limited analgesic effect, and treatment with muscle relaxants have been disappointing. Controlled clinical trials are nonexistent for the acute treatment of tension-type headache using muscle relaxants. Tizanidine appears to be useful in CTH

Table 3

Tricyclic analgesics	Maimum dose / 24 h In CTH	Quality of evidence	Level of evidence
Amitriptiline	10-150mg/d	A	I
Nortriptyline	10-150mg/d	C	III

Recruiting in clinical trials (Tension Type headache rescue, prophylactic medication):

Prophylactic effect of memantine in chronic tension-type headache, Phase III, sponsored by the Danish Headache Center

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This is a peer reviewed letter. Future updates: Cluster headache