

Tension - Type Headache in Clinical Practice

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Headaches are pains in the areas of the head and/or the neck. These are among the most common symptoms in the neurological clinical practice. According to the International Classification of Headache Disorders, headaches are divided into two groups: primary and secondary headaches. In the primary headache group are migraine, tension-type headache, cluster headache and hemicrania continua [1]. The tension-type headache (TTH) may appear isolated or together with migraine headache or secondary headaches. The tension-type headache is to be told from other types of headaches by differential diagnostics. This is a very common primary headache.

TTH may appear as episodic pains of the head, frequent or chronic headaches. Deemed chronic are frequent headaches appearing ≥ 15 days per month. Frequent headache appears in 12 to 179 days per year, and chronic headache 180 or more days per year. The most frequent is the episodic tension-type headache. The part of patients with frequent tension-type headache is significant. Of the chronic tension-type headache suffer around 3 % of the population [2-5]. Epidemiological studies show that in the developed countries from some form of the tension-type headache suffer around 78 % of the general population. The global tension - type headache prevalence is 46 - 78 %. Researches show that tension-type headache is present in around 78 % of the population, of which 59 % of the population has episodic tension - type headache not requiring therapy, 24 - 37 % frequent episodic headaches, and 2 - 3 % chronic tension-type headache [6-

8]. The tension - type headache appears in women and men at the ages of 25 - 30, the peak reached at the ages of 30 - 39. This form of headache is somewhat more frequent in women [9,10]. Clinically it manifests with nausea and bilateral headache of mild to moderate intensity. Most often the patients describe it as a feeling of pressure, tightening or a ring around the head. At clinical examination, attention is to be paid to the pain intensity and frequency, quality of life and degree of disabledness, general health status and craniocervical mobility [10-12]. The tension-type headache etiology is deemed to be multifactorial, including genetic predisposition and environmental factors. The triggering factors are stress, anxiety, depression, emotional conflicts, fatigue and mental difficulties [13-16]. In a large portion of patients, with the tension-type headache also appears pain in the neck (as much as 67 %), and in a lesser portion also the migraine headache (11 %). With the tension-type headache and neck pain comorbidity often appear mental difficulties, such as anxiety and depression. The tension-type headache attacks often correlate with emotional stress, sleeping disorders and other burdens in men and women [7,13]. From other forms of primary headaches such as migraine, cluster headache and hemicrania continua it is most often told by differential diagnostics of the clinical picture. It is to be told by differential diagnostics from secondary headaches that appear due to high intracranial pressure, caused either by tumour processes, non-tensive hydrocephalus and like [1,16-19].

The tension-type headache recovery process depends on the pain duration and intensity. Acute attacks of episodic headache are treated with acetaminophen 500 - 1000 mg, aspirin 300 - 500 mg, or nonsteroidal anti-inflammatory drugs (NSAID) such as ibuprofen 200 - 400 mg, naproxen 375 - 550 mg, ketoprofen 200 - 400 mg, diclofenac-sodium 50 - 100 mg. Often practiced are combinations of analgesics with caffeine, codeine, sedatives or anxiolytics, that increase the effects of aspirin or ibuprofen. The effects are increased by administering caffeine, antiemetics, miorelaxans or tranquilisers, but this is deemed to increase the risk

of the medication overuse headache (MOH) [20,21]. Frequent episodic attacks (over 15 days per month) or chronic tension-type headache require prophylactic therapy. This form of treatment can be non-pharmacologic and/or pharmacologic. Non-pharmacologic methods include relaxation methods, physical therapy such as TENS and like, as well as acupuncture and neurofeedback methods, and cognitive behavioural therapy, massage and exercises, and blockades in certain focal points [20-22].

Administered are tricyclic antidepressant clomipramine or maprotiline, as well as selective serotonin reuptake inhibitors (SSRI), with significant effects. Amitriptylin in small dosages has proven effective. Specific serotonin antidepressant mirtazapine administered 30 mg/day reduces headaches by over 34 %. The serotonin and noradrenalin reuptake inhibitor venlafaxin 150 mg/day significantly reduced the number of headache days (12 - 15 days/month). Lately have been used gabapentin, topiramate and tizanidine [21,22]. In a large number of patients, the tension-type headache is accompanied with pains in the neck (as much as 67 %). The tension-type headache and neck pain comorbidity are often accompanied with psychiatric disorders, such as anxiety and depression. The tension-type headache attacks often correlate with emotional stress, sleep disorders and burdens in men and women.

The existing knowledge leads to the conclusion that the tension-type headache is frequent in the modern world, significantly decreasing the patients' quality of life, more often of women. The tension-type headache is to be told from other types of headaches by differential diagnostics. The treatment is to be performed in its acute stage and, if necessary (frequent or chronic headache), with pharmacological and non-pharmacological methods.

References

- Headache Classification Committee of the International Headache Society (IHS) The International Classification of Headache Disorders, 3rd edition. *Cephalalgia*. 2018;38:1-211.
- Bendtsen L, Jensen R. Tension-type headache. *Neurol Clin*. 2009;27:525-35.
- Scripter C. Headache. Tension-type headache. *FP Essent*. 2018;473:17-20.
- Ertsey C, Magyar M, Gyüre T, Balogh E, Bozsik G. Tension type headache and its treatment possibilities. *Ideggyogy Sz*. 2019;72:13-21.
- Cumplido-Trasmonte C, Fernández-González P, Alguacil-Diego IM, Molina-Rueda F. Manual therapy in adults with tension-type headache: a systematic review. *Neurologia*. 2021;36:537-47.
- Jensen RH. Tension-type headache - the normal and most prevalent headache. *Headache*. 2018;58:339-45.
- Jensen R. Pathophysiological mechanisms of tension-type headache: a review of epidemiological and experimental studies. *Cephalalgia*. 1999;19:602-21.
- Jensen R. Diagnosis, epidemiology, and impact of tension-type headache. *Curr Pain Headache Rep*. 2003;7:455-9.
- Bezov D, Ashina S, Jensen R, Bendtsen L. Pain perception studies in tension-type headache. *Headache*. 2011;51:262-71.
- Sahler K. Epidemiology and cultural differences in tension-type headache. *Curr Pain Headache Rep*. 2012;16:525-32.
- Barbanti P, Egeo G, Aurilia C, Fofi L. Treatment of tension-type headache: from old myths to modern concepts. *Neurol Sci*. 2014;35:17-21.
- Crystal SC, Robbins MS. Epidemiology of tension-type headache. *Curr Pain Headache Rep*. 2010;14:449-54.
- Jay GW, Barkin RL. Primary headache disorders – part 2: tension-type headache and medication overuse headache. *Dis Mon*. 2017;63:342-67.
- Mier RW, Dhadwal S. Primary headaches. *Dent Clin North Am*. 2018;62:611-28.
- Kröll LS, Hammarlund CS, Westergaard ML, Nielsen T, Sloth LB, Jensen RH, et al. Level of physical activity, well-being, stress and self-rated health in persons with migraine and coexisting tension-type headache and neck pain. *J Headache Pain*. 2017;18:46.
- Fuensalida-Novo S, Jiménez-Antona C, Benito-González E, Cigarán-Méndez M, Parás-Bravo P, Fernández-De-Las-Penas C. Current perspectives on sex differences in tension-type headache. *Expert Rev Neurother*. 2020;20:659-66.
- Ailani J. Chronic tension-type headache. *Curr Pain Headache Rep*. 2009;13:479-83.
- Speciali JG, Eckeli AL, Dach F. Tension-type headache. *Expert Rev Neurther*. 2008;8:839-53.
- Diamond S. Tension-type headache. *Clin Cornerstone*. 1999;1:33-44.
- Burch R. Migraine and tension-type headache: diagnosis and treatment. *Med Clin North Am*. 2019;103:215-33.
- Freitag F. Managing and treating tension-type headache. *Med Clin North Am*. 2013;97:281-92.
- Schoenen J. Treatment of tension headache. *Rev Neurol (Paris)*. 2000;156:S87-92.

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