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Functioning problems of children with headaches in the family and school

Problemy funkcjonowania dzieci z bólami głowy w środowisku rodzinnym oraz szkolnym

Key words: headache, children. tension type headache, migrane

Słowa kluczowe: bóle głowy, dzieci, ból głowy typu napięciowego, migrena

INTRODUCTION

A headache (lat. Cephalgia, cephalea, cephalalgia, cephalodynia) - non-specific, subjective symptom, characterized by the presence of localized pain in the head, felt both on the surface of the skin of the face and head and deep inside the skull. It is one of the most common reasons for medical consultations. It may be characterized by varying intensity and duration; alone is rarely a sign of a serious illness.

Various population studies show that at least one incident of this nature has over the years more than 90% of people, including school children, account for about 70%. Epidemiological studies conducted in Poland show that the percentage of children with recurrent headaches preschool is 4-19%, aged 6-15 years, 21.4%, and between 15 and 19 years of age increases to 40%. Headaches are perceived by patients and their parents as a symptom accompanying proliferative processes and infection of the central nervous system (CNS). These reasons, in fact, represent a small percentage, and among patients of developmental age is dominated by spontaneous headaches. The prevalence of tension-type headaches (TTH, tension-type headache) varies among children and young people according to different sources from 21% to 72% and migraines from 2.7% to 10.6%.

Mostly these are the so-called contingent pain (caused by stress, fatigue, not slept, etc.), But in about 15% of headaches are repeated, sometimes nagging, negative impact on quality of life, are a phenomenon of disease and may require medical attention. Given the prevalence and diverse etiology of headaches, including more than 300 possible causes, they constitute a serious task for pediatricians and pediatric neurologists. Unfortunately, due to the insufficient number of studies that met the criteria of evidence-based medicine (EBM), the current guidelines are largely interpolation recommendations for adult patients. However, you should take into account the specific nature and prevalence of other specific causes of headaches in children and adolescents.

Objectives of work: In this paper, the authors would like to present a new diagnosis and etiology of the frequent complaints of young patients. Pay attention to the possibility of assistance outpatient pediatric, psychological support, as well as rapid diagnosis of symptomatic headaches. Unfortunately, we can not take into account the current classification, wanting to bring the enormity of the problem of patients with headaches, both in the school environment and family. Early diagnosis, systematic training of family doctors, the correct cooperation of parents and carers of children will reduce the percentage of patients hospitalized.

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CLASSIFICATION AND ETIOLOGY

The diversity of the phenomena determined by the patient as an "a headache" forced their categorization. Categorize the huge amount of phenomena, has adopted the International Headache Society (IHS), which formed in 1988 and published the first classification containing the diagnostic criteria of the most important teams. There is currently another modification of its 2013 third edition of the International

Classification of Headaches (ICHD, the International Headache Classification) - ICHD-2, which introduces a uniform terminology and criteria for the diagnosis of diseases with a headache. Just as in the classification of the 1988 divided headaches for spontaneous and symptomatic. Four categories of primary headaches are a migraine, tension-type headache, cluster headache and other anatomical trigeminal headaches and another idiopathic headache. Furthermore distinguished eight categories of an asymptomatic headache [1,2]. Below are the first level of ICHD-2 is presented (Tab. I)

Tab. I Classification of headaches ICHD-2 first-level

Spontaneous headaches
1. Migraine 2. A tension-type headache. 3. A cluster headache and other trigeminal-autonomous headaches. 4 Other spontaneous headaches.
Symptomatic headaches
5. A headache attributed to injury of the head and/or neck. 6. A headache attributed to vascular disease of the head or neck. 7. A headache attributed to intracranial disorders other than vascular. 8. A headache attributed to the action of chemical reactions or after their discontinuation. 9. A headache attributed to infection. 10. A headache attributed to disorders of homeostasis. 11. A headache or facial attributed to changes within the skull, neck, eyes, nose, sinuses, teeth, mouth or other facial or cranial structures. 12. A headache attributed to mental disorders.
Cranial neuralgia, central and idiopathic facial pain and other headaches
13. neuralgia, cranial nerves and central causes of facial pain. 14. Another headache, neuralgia cranial nerves, central or idiopathic facial pain

Presented, based on a distinction between a primary and secondary headache. Pain is a secondary consequence of the ongoing in the body, regardless of illness, for example, sinusitis, flu, mechanical trauma. Their occurrence is much rarer than the pain of an original.

Historically, secondary headaches were recognized in the literature as symptomatic pain. Treating the cause, you can effectively remove the sensation of pain. Relatively mild pain secondary, giving a sensation by remaining on an empty stomach or passing colds usually are not a cause for major concern. There are, however, among them a group of ailments that manifest themselves primarily with a sharp headache and pose a direct threat to life (including internal bleeding, stroke, infection of the central nervous system). The initial pain syndrome is a disease sui generis, that is, you can not distinguish a separate pathophysiological factor, which pośredniczyłby in the uprising reported symptoms. That is, in the case of primary

headache pain sensations are the only (or major) a symptom, its causes remain unexplained to date medically. A migraine, tension headache or Horton's syndrome can contribute to a significant reduction in the quality of life of the patient; at the moment they are treated only symptomatically.

IHS evolved a separate category for neuralgia, a group of 19 different units, of which the best known is the classical trigeminal neuralgia. These are very severe, suddenly appearing ailments, caused by the abnormal conduction of impulses in the nerves of the peripheral.

PATHOMECHANISM

Headaches can have various causes of eyestrain or sinusitis to severe conditions. When pain occurs as a result of a direct blow to the head, the reason is obvious; However, its etiology is often very volatile. Pain per se is the result of irritation of the peripheral pain receptors (in response to tissue injury, the extension of the viscera, or other factors). Normally, a healthy body immediately responds to such stimuli, trying to remove the cause. Sometimes, however, the same pain pathway suffer damage or generate an incorrect answer. Then the headache is a result of damage to sensitive roads peripheral pain or CNS stimulation or inadequate. In the head relatively few structures sensitive to pain: these include the scalp, leaving the larger arteries, sinus dural sickle sections of the brain and proximal large arteries soft tires. In contrast, several structures directly associated with a brain were not innervated externally - hence the lining cells of the brain, the choroid plexus veins soft tires and most of the brain parenchyma are not capable of causing pain.

In the case of pain, the most relevant primary structures involved in the pathogenesis appear to be:

- large intracranial vessels with the dura mater
- the peripheral end of the trigeminal nerve, which supplies them
- part tailed trigeminal nucleus, which takes impulse hyperalgesia of the head and neck
- circuits that modulate pain sensation inside the brain.

Symptoms of autonomic origin, such as tearing and clogging the nasal passages clearly indicate the headaches the origin of the so-called trigeminal-autonomous. They are the consequence of stimulating parasympathetic cranial nerve fibers. Controversy stirs many of the original components of the vascular headaches. In imaging studies, emerging changes are non-specific and do not affect the chance of therapeutic success. Despite this, the main premise for the use of pharmacological agents such triptans (with proven efficacy) is the answer to the invisible blood circulation disorders. [6,7]

Headaches can be a symptom of clinical depression masked (ie, the kind of depression, in which endogenous depressive syndrome is masked by other symptoms)

DIAGNOSTIC HEADACHES AND CRITERIA FOR A RECOGNITION HEADACHE INFANTS AND SMALL CHILDREN

The diagnosis of a headache in infants and small children is often implicit and based primarily on observation of the child. They can speak for him: anxiety, loss of appetite, sleep disturbances, vomiting. These symptoms, however, are not sufficient to determine the cause of pain and his character. It is necessary to assess pediatric and neurological taking into account the size and shape of the skull, head circumference measurement, evaluation of cranial sutures, measurement and ripple fontanelle, head position. The above data from observations and deviations in the study may indicate a team of increased intracranial pressure, increasing hydrocephalus and disadvantages of the CNS.

OLDER CHILDREN

The key importance in determining the cause of headaches in children is the exactly collected interview from both parents (guardians), as well as from the patient himself. It determines the further evaluation of headaches, the selection of additional tests and consultations necessary and therapeutic methods.

Because of the difficulty in capturing the measurable change in diagnosis is based mostly on information collected in an interview. The first goal of the medical examination is to rule out possible causes of secondary headaches, which can be confirmed by additional research. Among them, there are several especially dangerous phenomena, which is why special attention should be paid to the occurrence of the early "warning signs". In the case of absence of the latter puts the diagnosis of a primary headache. Each unusual symptom reported during long-term follow-up of the patient demands consider all possible causes.

Tab. II Alarming symptoms of a headache

Symptom	Possible Cause
Neurological symptoms other than typical aura of a migraine (focal, confusion, paralysis)	Encephalitis, hematoma, or bleeding into the cranial cavity, brain tumor or other abnormal mass, systemic vasculitis
Meningismus (neck stiffness, photophobia)	Meningitis, subdural empyema, subarachnoid hemorrhage
Staggering nature of pain	subarachnoid hemorrhage
Fever, rash, weight loss	Neuroborreliosis, systemic infection, cancer, meningitis or encephalitis, systemic vasculitis
Increasing headache	Brain tumor, subdural hematoma, drug abuse
Bloodshot eye, halos around lights	An acute attack of glaucoma with narrow-angle glaucoma
Papilloedema	Brain tumor, meningitis or encephalitis, another

Symptom	Possible Cause
	reason for the increased CSF pressure, subdural hematoma and over
New pain in a patient with AIDS	Opportunistic infection, brain tumor
New pain in a patient with cancer	CNS metastasis
New pain in a patient with Lyme disease	Meningitis or encephalitis

Diagnostic capabilities in patients presenting the first severe headache are quite different than in patients with recurrent headaches that occur it for many years. The headaches that appear for the first time and with great severity the likelihood of finding potentially serious causes is much higher than in a recurrent headache. Patients who recently appeared a headache, require rapid assessment and treatment often. For serious diseases, which should be considered as a possible cause of a headache include meningitis, subarachnoid hemorrhage, subdural and epidural hematoma, glaucoma and purulent sinusitis, brain tumor.

INTERVIEW

Information about the current pain collected, paying particular attention to

- Time of occurrence and dynamics problems• The nature of pain (intensity, way of feeling)
- associated symptoms and their temporal relationship with respect to episodes of pain
- Factors triggering attack
- Previous illnesses and treatment took in the past
- The occurrence of headaches in the family
- Typical social intelligence, including, among others sanitary conditions in the home, another place of residence of the child.

A history of headaches, collected from the child should include:

- duration, frequency, and intensity of the curve in time. From a clinical point of view, headaches can be divided into acute and chronic. Recurrent (paroxysmal) pain acute or chronic pain, nienarastające, lasting at least six months, without other disorders and neurological symptoms indicating spontaneous pain, not related to intracranial pathology. Attacks of a cluster headache culminate in 3-5 minutes and last about 45 minutes. Migraine attacks worsen for several hours, the last three days. Headaches occurring early in the morning subside gradually over a day, are characteristic of brain tumors or other disorders that cause an increase in intracranial pressure. (Table II)

- The type of a headache. Throbbing pain often accompanied by migraine attacks, oppressive or girdling suggests TTH, rapidly emerging, reminiscent of the lightning is characteristic of neuralgia.
- The intensity of pain is a subjective symptom. Therefore difficult to assess the child. It may be helpful quantitative assessment using a descriptive scale of pain intensity, visual analog scale or a combination of these scales and cash equivalents. From the perspective of patients is the most important aspect of pain, but he has little diagnostic value. Most patients with the most severe headache are migraine patients, while a headache caused by a brain tumor is mild or moderate intensity.
- The location of the pain. Changes in Intracranial the rear bottom of the skull cause pain usually located in the back of the head and neck, pain associated with disease processes in the paranasal sinuses, teeth, eyes, upper cervical circles is often not precisely localized, but still exists in the location corresponding to the segmental distribution.
- Time of occurrence and the factors associated with pain.
- Symptoms preceding and accompanying pain.
- The relationship between body position.

Tab. III The time pattern of headache and possible etiology

Pattern Time headache	Possible etiology
Acute diffuse	Systemic infections; Infections of the CNS; Poisoning (carbon monoxide and lead); A history of seizure; Electrolyte imbalance; Hypertension; hypoglycemia;
Acute located	Sinusitis and ear; Glaucoma; Dental disease and temporomandibular joint dysfunction -żuchwowego; Trigeminal neuralgia and occipital neuralgia; Traumatic; The first attack of migraine
Acute recurrent (Paroxysmal)	Migraine; Episodic TTH (less than 15 days a month for 3 months); Cluster headache
Chronic progressive	A brain tumor; The team alleged tumor; Chronic subdural hematoma; hydrocephalus; Arnold-Chiari malformation; Brain abscesses
Chronic nonprogressive	Episodic TTH (less than 15 days a month for 3 months)

Descriptive scale of a headache intensity
0 - No Pain
1 - Pain mild (slight)
2 - moderate pain (intermediate level)
3 - severe pain (strong, hard to resist).

PHYSICAL EXAMINATION

Usually, little information is available. It is essential to measure vital signs and body temperature. Overall rating of acute pain should include an examination of the cardiovascular system and kidneys by monitoring blood pressure and urine testing, evaluation by eye fundus examination, assessment of visual acuity, intraocular pressure measurement. It should also assess the psychological state of the patient for a possible link with headaches depression. Carried out a full neurological examination. The presence of symptoms of meningeal evidence of meningitis. Triggering the attack of pain by pressure on so-called. trigger points trigeminal neuralgia is characteristic. In some cases, the test should be performed neuroimaging.

The data from the examination indicating the need for diagnostics in the symptomatic headaches are disorders of consciousness, balance disorder, conduct disorder, blurred vision, swelling of the optic disc, Anisocoria, meningeal signs, focal symptoms of CNS damage, seizures, fever, and hypertension. On the basis of carefully collected history and physical examination can extract the warning signals, "red flags" indicating the need for diagnostic neuroimaging in the organic causes of headaches (Tab.V). The absence of these symptoms in the subjective and objective examination indicates spontaneous headaches. Diagnosis of a primary headache - a migraine, tension-type or a cluster headache should be based solely on the criteria formulated in the ICHD-2.

Tab. IV Diagnostic Criteria of ICHD-2 for pediatric migraine without aura and tension-type headaches

Migraine without aura in children		Headache Tension-type.	
A	At least 5 attacks fulfilling criteria B-10	A	At least 10 episodes fulfilling criteria B-D Headache lasting from 30 minutes to 7 days
B	Attacks of headache lasting from 1 to 72 hours.	B	Headache lasting from 30 minutes to 7 days
C	Headache has at least two of the following characteristics: 1. Unilateral location, may be bilateral, frontotemporal (not the occipital) 2. Flashing character 3. Average or substantial pain intensity 4. The exacerbation by routine physical activity and avoidance of such activity	C	Headache has at least two of the following characteristics: 1. Bilateral location 2. clutching, non-pulsed fashion character 3. mild or moderate intensity 4. Do not exacerbated by routine physical activity

Migraine without aura in children		Headache Tension-type.	
D	During the pain, at least one of the symptoms of: 1. Nausea and / or vomiting 2. photo- and phonophobia, which younger children can be determined on the basis of behavior	D	Both of the following characteristics 1. No nausea and vomiting 2. It may be accompanied by photophobia or phonophobia, but not both
E	Confine another disorder	E	Confine another disorder

Tab. V Red flags - signs indicating the need for differential diagnosis for signs and symptoms of headaches

NN	symptoms
1	Headache of high intensity occurring for the first time in my life or the strongest to date (first or worst)
2	The pain of increasing intensity and often during the days of the week.
3	Pain with characteristics indicating a rise in intracranial pressure: morning vomiting, pain, waking the patient from sleep, pain aggravated during coughing
4	Abnormalities in neurological examination and objective: behavioral disorders, awareness, balance and vision, Anisocoria, paresis focal meningeal signs, seizures and fever.
5	History data indicating phakomatoses, with the possibility of cancer metastasis, systemic disease, coagulopathy.
6	Age child under 3 years old.
7	Seizure

LABORATORY TESTS

In patients with developmental headaches routinely outsourced to basic laboratory tests: blood count, ESR, CRP, urinalysis, and stool for parasites. Perform other laboratory tests it depends on the clinical picture suggesting symptomatic nature of headaches. The indications for lumbar puncture and examination of cerebrospinal fluid is suspected Neuroinfections or subarachnoid hemorrhage. According to the practical guidelines of the American Academy of Neurology (AAN), the available data are insufficient to formulate any recommendations for routine laboratory tests or routine surgery lumbar puncture in the diagnosis of recurrent headaches in children and adolescents.

ADDITIONAL TESTS

In the case of typical chronic pain syndromes, they are not needed. Deviations from the norm occur if rare. Neuroimaging (CT or MRI technique) and a lumbar puncture (lumbar puncture - LP) are the fundamental methods to exclude external causes acute attacks of pain. Conducting research neuroimaging according to AAN recommendations, should be considered in children with abnormalities in the neurological examination (focal symptoms, the symptoms of intracranial hypertension, significant disturbance of consciousness) and/or having seizures. Execution of neuroimaging studies should also be considered in children with medical history revealed severe headaches recent start, change the type of a headache or concomitant neurological disorders. Performing MRI is recommended by the EFNS in adults and in children cases: an unusual pattern of headaches, seizures in history and symptoms of focal lengths. In the case of suspicion of the headaches associated with cerebrovascular disease, particularly vascular malformations, may be advisable to expand imaging with MRI angiography.

Electrophysiological tests such as EEG, evoked potentials and endogenous are undoubtedly a valuable research tool that gives insight into in vivo in the complex pathophysiology of primary headaches. However, current recommendations for both AAN and EFNS European line does not recommend routine use of EEG in recurrent headaches in children due to the low usefulness of this study in determining the causes of disease, as well as in the differentiation of a migraine and other headaches. The risk of developing epilepsy in children with recurrent headaches in whom EEG changes were noted paroxysmal, is irrelevant clinical EEG execution is justified in the differential diagnosis of seizures and attacks of a migraine with aura.

CONSULTATIONS

The differential diagnosis of headaches is useful to seek the consultation of other specialists: ophthalmologist, ENT specialist, an endocrinologist, a psychologist and a psychiatrist.

TAB. VI THE INCIDENCE RATE OF VARIOUS PAIN SYNDROMES

Type	Frequency	Type	Frequency
Migraine	16%	systemic infection	63%
voltage	69%	Head damage	4%
cluster	0,1%	angiogenic	1%
Pungent idiopathic	2%	subarachnoid hemorrhage	<1%
exercise	1%	A brain tumor	0,1%
Other primary	11,9%	Other secondary	30,9%

MIGRAINE

A chronic disease characterized by a paroxysmal headache, usually accompanied by other neurological symptoms and vegetative disorders (most commonly nausea and vomiting, photophobia, phonophobia, osmophobia, dizziness, scalp tenderness, blurred vision), and the movement further enhances the sensation of pain. Attacks triggered by the specific stimuli trigger. Migraine attack lasts from 2 to 72 hours and can be repeated with varying frequency - from a single year to more months. A migraine affects about 15% of the total population, making it the most common neurological ailment. Suffer from it to 15% of women and 6% of men, mostly middle-aged. [4.5]. There are two distinct, the most common forms of a migraine:

- without aura - normal (90%); on the clinical picture consists of pain on average, or significantly bolstered by vibrant nature, covering half of the head (for a change) with intense feelings of pain behind the eye and the previously identified vegetative disturbances or entire head.
- with aura - classical (10%); on the clinical picture consists of pain preceded by 5-60 minutes significant focal symptoms (neurological). The most common aura is visual, which is the emergence of the field of view (one or both) of flashing shiny spots, fewer cavities, and even. Less common forms of aura is a one-sided numbness or tingling hemiparesis or only the face and hands. Exceptionally may occur aphasia. Aura is short, and the growing attack pain. Among migraine attacks are distinguished: lightweight (impairment of daily activities); medium-weight (the patient can not do the work); severe (requires regime sexual).

The disease consists of periods of remission and exacerbation which accompany the patient for the end life; over time, the intensity of the symptoms can be reduced. The pathogenesis is largely unknown. Probably headache results from an abnormal reaction of the nervous and vascular stimuli internal and external. It is believed that this is a genetically determined disorder of ion channel (channelopathies), the key role is played by serotonin receptors (5-HT 1B include / D and 5-HT2). During the attack takes place sterile perivascular inflammation, probably within the tire. No quenching of the pain response leads to a massive release of neurotransmitters (serotonin, dopamine, CGRP, substance P) and vascular mediators (kinins, histamine, secondarily.) [5,6]

Directions migraine treatment

1. Non-pharmacological methods
    a. Avoiding triggers migraine
    b. Elimination Diet
    c. Biobehawioralne treatment
    d. Other.
2. Pharmacological treatment
    a. Short-term interruption of migraine attacks
    b. Preventive treatment of a migraine

Interruption of the attack, the pain is always advisable, since the intensity of migraine pain always hinders the functioning of the patient, resulting in a disability preventing life activity for many hours. The overall management of migraine attack is to ensure calm the child and placing it in a dark, quiet room. Analgesics should be given immediately after the onset of the first symptoms of a migraine attack, at the very beginning of the pain or the aura. In the case of triptans, it is recommended to specify the resolution of the aura. In children and adolescents with migraine headaches, we have a limited arsenal of drugs. [6,7]

The guidelines of the American Academy of Neurology 2004 and the European Federation of Neurological Societies to 2009 are consistent: only drugs against pain, whose effectiveness and safety in the acute treatment of a migraine documented clinical trials in children and adolescents are likely to ibuprofen and paracetamol. [3,4] In the acute treatment migraine attacks most effective and well tolerated single dose of ibuprofen (10 mg/kg) and paracetamol (15 mg/kg) .Efekt therapeutic paracetamol is observed more quickly, but the drug is less effective than ibuprofen, which generally has a stronger analgesic effect. If both these drugs are not effective, you can consider including triptans. Sumatriptan nasal spray at a dose of 5-20 mg is the only triptan whose effectiveness in children and adolescents was confirmed in a study based on the criteria of EBM. It is recommended dose for adolescents of 12 eyes of 10 mg. Triptans administered orally and subcutaneously are likely to be effective. In children and adolescents should not be given ergotamine. Incidentally, it is possible the use of antiemetics and sedatives. In the case of prolonged severe migraine attack or condition may be considered przeciwobrzękowych drugs, steroids, sedatives or intravenous dihydroergotamine. The strategy of conduct in children with a migraine, proposed in 2010 by Hershey, it is recommended to start emergency treatment of ibuprofen or paracetamol at a suitable dose of 7.5 to 10 mg/kg m.c, not more than 2-3 times a week. If NSAIDs are not effective, you can turn on the triptans can continue to use NSAIDs, but not more than 6 times a month. If NSAIDs and triptans used in the home will prove to be ineffective, should be considered as hospital treatment with dopamine agonists, intravenously administered NSAIDs and dihydroergotamine. An important component of the therapeutic treatment is to eliminate the factors provoking migraine attacks, provided they are able to determine, has been shown to eliminate factors may be efficacious in 1/3 of children population.

A prophylactic drug therapy is implemented at the moment, the normal remedies do not show the desired efficacy. Due to insufficient knowledge about the causes of migraines is based on samples of different measures with documented effects on the CNS: β-blockers, anti-epileptic drugs, calcium channel blockers, serotonin receptor agonists, antidepressants and non-steroidal anti-inflammatory agents. The chance of success varies from the 50-75%. The status of a migraine attack that lasted continuously for over 72 hours. The pain reaches high intensity, and significantly impairs functioning; generally, it is necessary to clinical intervention. A chronic migraine is defined as a headache with the criteria of a migraine, occurring more than 15 days per month for a period longer than 3 months.

It now widely accepts the recommendations to include prophylactic treatment in children and adolescents in a migraine is no different when it comes to adults and adolescents. Pharmacological treatment should be considered in these patients, who have more than two attacks a month. Such treatment can be recommended when the migraine attacks impair daily life or it lasts several days, preventing the normal functioning, as well as in patients with available methods of emergency treatment are ineffective or contraindicated. According to the guidelines EFNS, the most reliable data on preventive therapy in children and adolescents is achieved with respect to flunarizine 10 mg/day dose of propranolol at a dose of 40-80 mg/day and the topiramate at a dose of 15-200mg mg/day. Preventive treatment of a migraine can be considered effective if the frequency of migraine attacks was reduced by at least 50% within three months.

TENSION-TYPE HEADACHE

TTH (Tension type headache) - is a common form of a headache as it were opposed migraine from which differs by the absence of seizures, and incidental. The literature also referred to recently as a psychogenic headache, stress headache, ordinary headache or a headache due to increased muscle tension. Spontaneous, compression, bilateral headache (forehead or covering only or both temples, or back of the head), nienasilający during physical activity (as opposed to a migraine) a type headache [2,3]. It is often combined with intense muscle spasms bonnet, neck, and shoulders. Although the state of increased tension may be sensed by touch, however, the study electromyographic (EMG) often does not confirm this fact. May accompany him too - but rarely - slight nausea or photophobia. Is usually moderate intensity and oppressive, dull character. The duration of this state is from hours to several days without significant improvement. Therefore, there are three different embodiment TTH:

- Cameo - a relatively rare, about once a month;
- A common - occurring up to 15 times a month;
- Chronic - appearing every day or almost every day

In the chronic form, it is important to diagnose comorbid depressive and anxiety disorders, and the inclusion of appropriate pharmacological treatment of these disorders. TTH treatment is difficult, and even it is believed that the therapeutic resistance is a hallmark of this disease. As in the proceedings of a migraine immediate and prophylactic treatment. During episodes of pain it is desirable to use NSAIDs (aspirin, dexketoprofen, diclofenac, ibuprofen, acetaminophen, etc.), Often associated with caffeine. Frequent, chronic attacks attributed to antidepressants (tricyclics - confirmed the efficacy of amitriptyline; opipramol,) and anxiolytics (benzodiazepines). In some cases, they help to beta-blockers, eg. Propranolol. In the treatment of the symptoms of episodic TTH it recommended to the same treatment as in the case of head-ibuprofen and paracetamol.

The previous poor results are an incentive to seek alternative solutions: therapy based on relaxation techniques and cognitive behavioral therapy, biofeedback, psychological support. The use of acupuncture and treatment with botulinum toxin does not make any clinical benefit, although there are reports of improvement after the use of acupuncture. The effect lasts up to 3 months. Amitriptyline, used in the prophylactic treatment of adult patients with a migraine and TTH, it is also used in children, although its use is limited because of the potential adverse reaction, more preferred is a behavioral therapy.

Cause	Description	Diagnosis
Low CSF pressure	The pain worsens when standing, dull; recently completed a lumbar puncture or spontaneous CSF leak	Neuroimaging
High pressure CSF	Generalized dull headache, increases in the supine position, swelling of the optic disc, visual disturbances	Neuroimaging, lumbar puncture (in the absence of contraindications)
"Traumatic"	Possible long latency time, the development of the different types of injuries / illnesses, many factors contribute to the image of CT / MRI, no change	By excluding the causes of acute
Meningitis	Fever, meningismus, mental status changes, nausea; rapid onset, high severity	Lumbar puncture, neuroimaging
Intracranial haemorrhage	The nature of staggering, vomiting, fainting, meningismus; no fever; rapid onset	Neuroimaging, lumbar puncture
A brain tumor	Dull, deep pain of moderate intensity; changes in neurological, hormonal disorders, vomiting	Neuroimaging
Size cell temporal arteritis	Age over 55 years, one-sided, throbbing pain, blurred vision, fever, weight loss, tenderness in the temporal muscle pain	ESR / CRP, artery biopsy, neuroimaging
Headache from the abuse of drugs	Worsening of seizures of pain from overuse of painkillers; after discontinuation of improvement	Interview, toxicology
Glaucoma	Sided orbital pain, halos of light, decreased visual acuity, vomiting	Eye examination
Sinusitis	Facial pain or tooth, fever, runny nose	Interview, sometimes neuroimaging
Projected neck pain	Pain that occurs during movement of the head and neck, relieved by	Demonstration of rheumatic changes, the pres-

Cause	Description	Diagnosis
	appropriate peripheral nerve blockade	ence of trigger points
Cranial neuralgia	Bouts of very severe pain, limited to the area of innervation of a nerve (usually branches n. V), frequent involuntary facial grimacing	Interview, the presence of trigger points

CONCLUSIONS

In recent years we have seen an increasing number of patients with headaches led to the neurology department may suggest the need for new epidemiological studies. It seems that the improvement in diagnostic outpatient headache, increasing awareness of parents and guardians of children should reduce the proportion of hospital admissions of patients with secondary headaches. In view of the steadily increasing educational requirements is needed more and better individual patient care from headaches and consider the possibility of children with lower than average IQ. Surrounding these patients the proper psychological help and support from family should reduce the proportion of hospital admissions of these patients. Especially in patients with tension headache, we can unequivocally state that the headaches will result in difficulties at school, or perhaps felt by schoolchildren stress influences the formation of the pain. Perhaps you should consider whether the current system of education is associated with higher levels of stress in children, which in spite of normal intellectual capacity can not satisfactorily cope with the requirements posed.

REFERENCES

1. Boćkowski L., Sobaniec W.: Bóle głowy [in:] Steinborn B. (red.) Standardy postępowania diagnostyczno-terapeutycznego w schorzeniach układu nerwowego u dzieci i młodzieży. Wydawnictwo biFolim , Lublin 2013, wyd 1, tom1., 127--135.
2. Boćkowski L., Sobaniec, W., Smigielska-Kuzia, J., Kułak, W.: Leczenie migrenowych bólów głowy u dzieci. Klin.Pediatr. 2010;18:10-13.
3. Dilling-Ostrowska E.:Bóle głowy, [in:] Diling –Ostrowska E.,(red):Zespoły bólowe w neurologii dziecięcej. Wydawnictwo Lekarskie PZWL,Warszawa 2005,10-112.
4. Evers S.,Afra J.,Frese A.,et al.:EFNS guideline on the drug treatment of migraine-revised report of an EFNS task force.Eur.J.Neurol.2009;16:968-981.
5. Headache Classification Subcommitteee of the International Classification of headache disordes.Cephalgia 2004;24(supl.1):1-160.

6. Hersey A.D.:Current approches to the diagnostic and managent of paediatric migraine.Lancet Neurolog.2010;9:190-204.
7. Stępień A .,Bóle głowy- diagnostyka i leczenie .Wydawnictwo Czelej Lublin 2004

ABSTRACT

Headaches in children are the reason for hospitalization and thus constitute a major cause of absenteeism in school children as well as parents' anxiety about the health of small and teenage patients. Objectives of work: In this paper, the authors would like to present a new diagnosis and etiology of the frequent complaints of young patients. Additionally, authors' intention is to pay attention to the possibility of assistance outpatient pediatric, psychological support, as well as rapid diagnosis of symptomatic headaches. In recent years we have seen an increasing number of patients with headaches addressed to the department of neurology. This situation may suggest the need for new epidemiological studies It seems that the improvement in diagnostic outpatient headache, increasing awareness of parents and guardians of children should reduce the proportion of hospital admissions of patients with secondary headaches. In view of the steadily increasing educational requirements is needed more and better individual patient care from headaches and consider the possibility of children with lower than average IQ. Surrounding these patients the proper psychological help and support from family should reduce the proportion of hospital admissions of these patients.

STRESZCZENIE

Bóle głowy od dawna są powodem hospitalizacji a tym samym stanowią główną przyczynę absencji dzieci w szkole a także niepokój rodziców o zdrowie małych i nastoletnich pacjentów. W poniższej pracy pragniemy przybliżyć nową diagnostykę i etiologię tej jak częstej dolegliwości młodych pacjentów. Zwrócić uwagę na możliwości pomocy ambulatoryjnej u dzieci, pomocy psychologicznej, jak i również szybkiej diagnostyki objawowych bólów głowy W ostatnich latach obserwujemy zwiększająca się liczba pacjentów z bólami głowy kierowanych do oddziału neurologii może sugerować potrzebę podjęcia nowych badań epidemiologicznych. Wydaje się, że poprawa diagnostyki ambulatoryjnej bólów głowy ,zwiększająca się świadomość rodziców i opiekunów dzieci powinna zmniejszyć odsetek hospitalizacji pacjentów z wtórnymi bólami głowy. Wobec systematycznie wzrastających wymogów edukacyjnych konieczna jest coraz lepsza indywidualna opieka nad pacjentem z bólami głowy oraz uwzględnienie możliwości dzieci z niższym niż przeciętnie ilorazem inteligencji. Otoczenie tych pacjentów właściwą pomocą psychologiczną i wsparcie ze strony rodziny powinno zmniejszyć odsetek hospitalizacji tych pacjentów.

Artykuł zawiera 39480 znaków ze spacjami