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INFORMATION CIRCULAR: Pediatric migraine

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PEDIATRIC MIGRAINE



Migraine is a disabling neurological disorder characterized by episodic headaches of moderate to severe intensity. Migraine is prevalent in the pediatric population, and incident cases are common in childhood and adolescence (1,2,3).

More than half of migraineurs have their attack before they are 15 years of age. He mean age of onset of migraine is 7 years in boys and 11 years in girls. He overall mean prevalence of migraine in the pediatric population is 9.1% (1-5).



Pediatric migraine is very common, affecting ~8% of children and adolescents, and causes a substantial amount of disability in this population (3-5).

The goals of pediatric migraine treatment are to reduce migraine-associated disability, improve pain-coping strategies, improve health-related quality of life and reduce the risk of migraine chronification (3,4).

Migraine treatment is divided into two broad areas: acute and preventive therapies.

By ages	Preschool	Elementary school	High school
Prevalence (%)	1.2-3.2	4-11	8-23
Gender ratio	boys>girls	boys=girls	girls>boys

Prevalence of migraine headache through childhood (5).

Pediatric Migraine Treatment: An Updated Review, Neonat Pediatr Med 2019, 5:1 DOI: 10.4172/2572-4983.1000178

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TREATMENT

The education of the family and child regarding migraine headache is an important issue. ***Children, who experience migraine, as well as their families, may benefit from creating a migraine journal where they can mark each episode***, describing the attack in order to find a pattern and to identify the potential triggering factors and the response they have after administrating different therapies (6).

The first step in avoiding migraine attacks is recognizing and eliminating the triggering factors such as (6):

- Dietary: alcoholic beverages, caffeine excess, artificial sweeteners, tyramine (aged cheeses, smoked fish, cured meats), nitrates and nitrites, monosodium glutamate
- Environmental: media abuse, odors
- Medication: cimetidine, estrogen, histamine, hydralazine, nifedipine, nitroglycerin, ranitidine, reserpine, long-term use of nonsteroidal anti-inflammatory drugs
- Psychological and physical triggers: stress, anxiety, worry, depression, fatigue, fever, illness, poor sleep habits, irregular meals, fasting, hypoglycemia, dehydration.

- Regarding acetaminophen, there is not sufficient evidence for the acute treatment of migraine in children and adolescents (7,8).
- Ibuprofen is another NSAID (Non-Steroidal anti-Inflammatory Drug) used in the acute treatment of migraine in children (9).
- In the current body of literature, there is no evidence for use of diclofenac in children with migraine (8).
- The rare adverse effects of acetaminophen are skin rash, erythema, urticaria, while gastralgia, nausea and vomiting for ibuprofen. At the moment, acetaminophen is not contraindicated as an analgesic since the first years of life. Contraindications are drug hypersensitivity, liver failure and hemolytic anemia (9,10).
- Alternative over-the-counter anti-inflammatory medications, including naproxen sodium and aspirin. Naproxen is a different NSAID that, when given in combination with sumatriptan, is FDA approved for use in pediatric migraineurs. Aspirin should be avoided in children under the age of 16 years to avoid the risk of Reye syndrome (8).

Migraine in pediatric population, as well as in adults, is often unrecognized or misattributed to secondary causes such as sinus disease or emotional disorders.

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- Antidopaminergic agents, such as prochlorperazine and metoclopramide, are indicated in the treatment of significant nausea and vomiting associated with migraine attack, in the emergency department (ED) (11).
- Triptans are 5-HT1B/1D serotonergic receptors agonists and have an anti-migraine and antiemetic action. Triptans are used to treat moderate or severe migraine attacks, while analgesics are reserved for mild or moderate ones (11, 12, and 13).
- According the most recent practice parameter guidelines for treatment of pediatric headaches analgesics and triptans are recommended as the first-line treatment for acute migraine. Sumatriptan- Contraindication- ≤ 6 years (14).
- He most commonly used medications for migraine prophylaxis are: beta blockers (propanolol), calcium channel blockers (flunarizine), the antihistaminics drugs (cyproheptadine), the antidepressants (amitriptyline) and the anticonvulsivants (valproate, topiramate and gabapentin) (15).

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CONCLUSION

Although considered to be a benign self-limited disorder, migraine in children has proved to surpass the childhood period into adulthood. Recognizing and avoiding trigger factors as well as a suitable therapy strategy may give the migraneur child the chance for a good quality of life.

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