

Pediatric Migraine Treatment Options and Further Evaluation

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This guide will walk you through the red flags, signs of when to image, lifestyle changes and treatment options for the pediatric migraine patient.

Red Flags

History

- Worst headache of their life
- Positional headache
- During sleep or early morning especially with emesis
- Atypical or change in headache pattern
- Intensified by exertion
- Headache associated with neurological deficit
- Acute vision loss or diplopia
- Sudden decline in school performance
- Seizure
- Personality change

Neurological Exam

- Meningeal signs, fever, rigors
- Signs of increased intracranial pressure
- Neurocutaneous findings
- Altered mental status
- Focal neurological findings
- Papilledema
- Nystagmus
- Cranial nerve abnormality
- Hemiplegia
- Ataxia

When to Image

- Signs of increased intracranial pressure
- Abnormal neurological assessment
- Severe/abrupt headache (thunderclap)
- Change in headache pattern (increasing frequency or severity)
- Does not meet criteria for migraine or tension headache
- Not responding to daily or acute medications
- Infection and/or trauma

Lifestyle Goals

Goal hydration

- Ounces/day = weight in pounds
- Max 100 ounces/day

Adequate sleep (within 2 hours variability)

- Children 10-12 hours and teenagers 9 hours

Avoid possible food triggers

- Caffeine, cheese, chocolate, dairy, smoked foods, sausage, hotdogs, bacon, vinegar, red meat, pepperoni, bologna, deli meats, food with MSG (nuts, soy sauce)

Be aware of other possible triggers

- Stress, intense emotions, weather changes, strong odors/fumes, loud noise, over-exertion, travel, medications, hormone changes (menstrual cycles)



Acute Headache Treatment

Step 1: Simple analgesic (Acetaminophen, NSAID) and/or electrolyte fluid

Step 2: Simple analgesic and or an anti-emetic

Step 3: Triptan

Key for Success:

- Treat Early
- Educate family on Medication Overuse Headache (avoid more than two treatment days per week)
- Headache log: including date, time, situation and treatment

Rule of 2s:

- Re-dose in 2 hours, if needed
- Limit 2 doses per day
- Limit 2 treatment days per week

Side Effects: flu-like symptoms, tightness in chest/throat/jaw

Contraindications: uncontrolled HTN, arrhythmia, TIAs or history of stroke, pregnancy, ischemic heart disease, coronary vasospasm (including Prinzmetal's), multiple risk factors for CAD, hemiplegic migraine

When to Refer

- Red Flags in History and/or Exam
- Significant Abnormality on Imaging
- Not responding to daily or acute medications
- Younger than 5 years old

| | Time to onset (hrs) | Half Life (hrs) | Preparations and Dosing |
|-----------------------------|---------------------|-----------------|---|
| <i>Fast Active Triptans</i> | | | |
| Sumatriptan | 1.5 | 2-2.5 | Tab: 1mg/kg/dose, 25mg (<50kg), 50mg (>50kg), 100mg Nasal Spray: 5mg (<50kg, <9yrs), 10mg (>10-11 yrs), 20mg (>50kg, >12yrs) |
| Zolmitriptan* | 2 | 2.5-3 | Regular/ZMT: 2.5mg (<12yrs), 5mg (>12 yrs) Nasal Spray: 5mg (>12 yrs) |
| Rizatriptan* | 1.2-2.5 | 2-3 | Regular ODT: 5mg (<40kg), 10mg (>40kg) |
| Almotriptan* | 1.4-3.8 | 3.2-3.7 | Tab: 6.25mg or 12.5mg or 25mg (>50kg) |
| Eletriptan | 1-2 | 4-7 | Tab: 20mg or 40mg (>50kg) |
| <i>Slow Active Triptans</i> | | | |
| Naratriptan | 2-3 | 5-6 | Tab: 1mg, 2.5mg |
| Frovatriptan | 2-4 | 24-30 | Tab: 2.5mg |

*FDA approved medication for children