Migraine
Ashina, M. NEJM November 2020

Diagnosis: International Classification of Headache Disorders, 3rd edition (ICHD-3): Broad clinical features suggestive of migraine are recurrent headache attacks of moderate-to-severe pain intensity, with a duration of 4 to 72 hours. A diagnosis of migraine should be considered if a typical attack of head pain is unilateral, pulsating, and aggravated by physical activity. Common accompanying symptoms are nausea, vomiting, photophobia, and phonophobia. Some persons report that the migraine is preceded by an aura, which is characterized by reversible focal neurologic symptoms, typically comprising visual or hemisensory disturbances.

Pathophys: incompletely understood, considered to involve the trigeminal nerve and its axonal projections to the intracranial vasculature (termed the trigeminovascular system).

Epidemiology: second most common neurologic disorder after tension headache, female:male ratio is 3:1. 15% of the population and 7% of kids. Prevalence peaks between 35-39yo. 75% report onset before 35. Onset >50 should arouse suspicion for other cause.

Genetic Features: heritability in 42%.
Triggers: contrary to popular belief, the role of triggers is limited.

Aura: usually visual scintillations or scotoma and less often spreading hemisensory sxs or speech dysfunction, these reversible focal neurologic symptoms develop over a period of 5-60 minutes although aura symptoms may occur during or in the absence of a subsequent headache.

Differential: cva, sah (thunderclap HA severe in 1 second), meningitis (fever, stiff neck).

Treatment: NSAIDS first sign of HA, then oral triptans, if one oral triptan not effective, may try another (there are a total of 7). Subcu works better than oral. New gepants and ditans are too expensive to be used unless all nsaids and triptans have failed. Consensus guidelines advise against the use of opioids and barbitu-rates in the treatment of migraine because of adverse effects and the risk of dependency.

Preventive Treatment: generally considered when patients have at least 2 migraines per month.

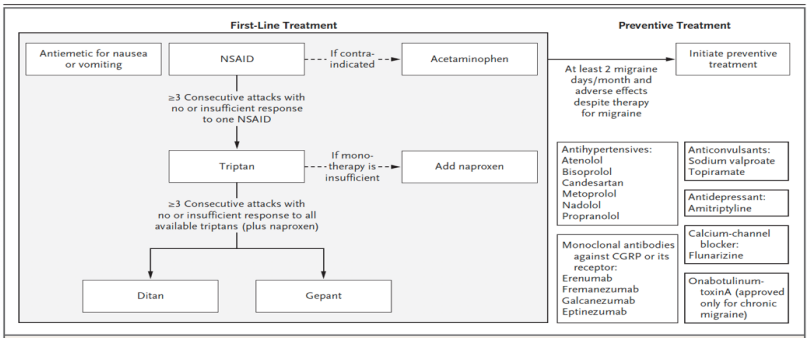

Figure 4. Proposed Treatment Algorithm for the Clinical Management of Migraine.
Nonsteroidal antiinflammatory drugs (NSAIDs) should be considered first-line medications for the treatment of migraine attacks. Patients in whom NSAIDs provide no or inadequate pain relief should be offered an oral triptan. If an oral triptan provides no pain relief, other triptans should be offered. Combination therapy with naproxen sodium should be offered to patients who have inadequate pain relief with triptan. Ideally, clinicians should first offer subcutaneous sumatriptan when a patient has had inadequate pain relief with all oral triptans. However, subcutaneous sumatriptan may be tried at an earlier stage if oral triptans cannot be ingested because of vomiting or if headache intensity peaks rapidly. Ditans and gepants may be considered for patients in whom NSAIDs and all available triptans are ineffective, have unacceptable side-effect profiles, or are contraindicated. The decision about when to substitute a triptan with a gepant or ditan may differ among countries and should be made in accordance with local practice guidelines. Antiemetic agents may be offered as adjunctive therapy in patients with attacks accompanied by nausea or vomiting. Initiation of preventive treatment depends on local practice guidelines but should, in general, be considered for patients who have at least 2 migraine days per month and are adversely affected despite therapy.

Table 1. Diagnostic Criteria for Migraine without Aura, Migraine with Aura, and Chronic Migraine.*

Type of Migraine	Diagnostic Criteria
Migraine without aura	At least five attacks that meet the following four criteria:
	Headache lasting 4–72 hours (when untreated or unsuccessfully treated)
	Headache with at least two of the following four characteristics: Unilateral location Pulsating quality Moderate or severe pain intensity Aggravation by or causing avoidance of routine physical activity (e.g., walking or climbing stairs)
	Headache accompanied by at least one of the following symptoms: Nausea, vomiting, or both Photophobia and phonophobia
	Not better accounted for by another ICHD-3 diagnosis
Migraine with aura	At least two attacks that meet the following three criteria:
	One or more of the following fully reversible aura symptoms: Visual Sensory Speech, language, or both Motor Brain stem Retinal
	At least three of the following six characteristics: At least one aura symptom spreading gradually over a period ≥5 minutes Two or more aura symptoms occurring in succession Each aura symptom lasting 5–60 minutes At least one unilateral aura symptom At least one positive aura symptom Headache accompanying the aura or following the aura within 60 minutes
	Not better accounted for by another ICHD-3 diagnosis
Chronic migraine	Headaches (suggestive of migraine or tension headaches) on ≥15 days/month for >3 months that fulfill the following criteria:
	Occurring in a patient who has had at least five attacks meeting the criteria for migraine without aura or the criteria for migraine with aura or both On ≥8 days/month for >3 months, features of migraine without aura or of migraine with aura or believed by the patient to be migraine at onset that is relieved by a triptan or ergot derivative Not better accounted for by another ICHD-3 diagnosis

* Diagnostic criteria are from the *International Classification of Headache Disorders, 3rd edition* (ICHD-3).[3]