



Migraine

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Introduction:

- Migraine is one of the commonest causes of recurrent headache
- Constitutes 16% of recurrent headache
- Affects 10-20% of general population
- Migraine is most common between the ages of 18 and 44.
- Under diagnosed and under treated
- Migraine is the 3rd most prevalent illness in the world (behind dental caries and tension-type headache) .
- Migraine is a public health issue with serious social and economic consequences

DEFINITION:

“Migraine is a familial disorder characterized by recurrent attacks of headache widely variable in intensity, frequency and duration. Attacks are commonly unilateral and are usually associated with anorexia, nausea and vomiting”.



MIGRAINE TRIGGERS:

- Disturbed sleep pattern
- Hormonal changes
- Drugs
- Physical exertion
- Visual stimuli
- Auditory stimuli
- Olfactory stimuli
- Weather changes
- Hunger
- Psychological factors



PHASES:

- Prodrome
- Aura
- Headache
- Postdrome



PRODROME:

- Vague premonitory symptoms that begin from 12 to 36 hours before the aura and headache.

Symptoms:

- Yawning
- Excitation
- Depression
- Lethargy
- Craving or distaste for various foods

Duration: 15 to 20 min.



AURA:

Aura is a warning or signal before onset of headache.

Symptoms:

- Flashing of lights
- Zig-zag lines
- Difficulty in focussing

Duration : 15-30 min.



HEADACHE:

- Headache is generally unilateral and is associated with **SYMPTOMS** like:
 1. Anorexia
 2. Nausea
 3. Vomiting
 4. Photophobia
 5. Phonophobia
 6. Tinnitus
- **Duration:** 4-72 hrs.



POSTDROME:

Following headache, patient complains of -

- Fatigue
- Depression
- Severe exhaustion
- Some patients feel unusually fresh

Duration: Few hours or up to 2 days.



CLASSIFICATION:

According to Headache Classification Committee of the International Headache Society, Migraine has been classified as:

- Migraine without aura (common migraine)
- Migraine with aura (classic migraine)
- Complicated migraine



PATHOPHYSIOLOGY:

VASCULAR THEORY:-

- Intracranial/Extracranial blood vessel vasodilation – headache.
- Intracerebral blood vessel vasoconstriction – aura.

SEROTONIN THEORY:-

- Decreased serotonin levels linked to migraine.
- Specific serotonin receptors found in blood vessels of brain.



DIAGNOSIS:

- Medical History
- Headache diary
- Migraine triggers
- Investigations
 - ✓ EEG
 - ✓ CT Brain
 - ✓ MRI



DIFFERENTIATING COMMON PRIMARY HEADACHES

Characteristic

Migraine without aura

Tension-type headaches

Cluster

Location and radiation of pain



Usually unilateral



Bilateral



Strictly unilateral

Tension headaches: Do not have the associated features like nausea, vomiting, photophobia, phonophobia. The muscle contraction leads to headache. Headache quality is of a tightening (non-pulsating) quality. Usually bilateral. Intensity is mild or moderate

Cluster headaches: Severe unilateral pain. Headache associated with lacrimation, nasal congestion, rhinorrhea, facial sweating or eyelid edema. Pain lasts for 15 to 180 minutes. More common in men

Headaches

Sinus:
pain is
behind
browbone
and/or
cheekbones.



Cluster:
pain is
in and
around
one eye.



Tension:
pain feels
like a band
squeezing
the head.



Migraine:
pain moves
from one
side to the
other.



GOALS FOR TREATMENT:

- Establish diagnosis.
- Educate patient.
- Discuss findings.
- Establish reasonable expectations.
- Involve patient in decision.
- Encourage patient to avoid triggers.
- Choose the best treatment.
- Create treatment plan.



LONGTERM TREATMENT:

- Reducing the attack frequency and severity.
- Avoiding escalation of headache medication.
- Educating and enabling the patient to manage the disorder.
- Improving the patient's quality of life.



lifestyle factors that can reduce migraines

- Avoid certain foods: Alcohol, chocolate, aged cheeses
- Don't smoke. ...
- Eat regular, balanced meals: fruits, vegetables, whole grains, lean protein, and healthy fats
- Establish a sleep schedule. ...
- Exercise often. ...
- Practice good posture. ...
- Reduce your stress.

MANAGEMENT:

- **Non-pharmacological treatment:-**
 - Identification of triggers
 - Meditation
 - Relaxation training
 - Psychotherapy
- **Pharmacotherapy:-**
 - Abortive therapy
 - Preventive therapy



ABORTIVE THERAPY

- Non-specific treatment:

Drug	Dose	Route
Aspirin	500-650 mg	Oral
Paracetamol	500 mg-4 g	Oral
Ibuprofen	200- 300 mg	Oral
Diclofenac	50-100 mg	Oral/IM
Naproxen	500-750 mg	Oral



SPECIFIC TREATMENT:

Drug	Dose	Route
Ergot alkaloids		
Ergotamine	1-2 mg/d; max-6 g/d	Oral
Dihydroergotamine	0.75-1 mg	SC
5-HT receptor agonists		
Sumatriptan	25-300 mg	Orally
	6 mg	SC
Rizatriptan	10 mg	Orally



PREVENTIVE THERAPY:

	Drugs	Dose (mg/d)
1.	Betablockers ◆ Propranolol	40-320
2.	Calcium Channel Blockers ◆ Flunarizine ◆ Verapamil	10-20 120-480
3.	TCAs ◆ Amitriptyline	10-20
4.	SSRIs ◆ Fluoxetine	20-60



effectiveness of TMS

- Single-pulse trans-cranial magnetic stimulation is effective for the acute treatment of migraine with aura after the first attack .
- The efficacy of TMS on chronic migraine was not significant

Migraine Complications

- Status Migrainosus: This rare and severe migraine with aura lasts for longer than 72 hours
- Migrainous Infarction: This is when a migraine is associated with stroke. (Typically, this is a migraine headache with an aura that lasts more than an hour. Sometimes, the aura is present even when the headache disappears which may be a sign of bleeding in the brain) people who have migraines have about twice the risk of having a stroke
- Persistent Aura Without Infarction: This complication arises if an aura lasts for more than a week after a migraine has ended, but there is no bleeding in the brain).
- Migraine Epilepsy: This is a condition where an epileptic seizure is triggered by a migraine. Typically the seizure will occur within an hour after a migraine.
- Mental Health Issues: major depression, general anxiety disorder (GAD) , bipolar disorder, panic disorder, substance abuse disorders, agoraphobia, post-traumatic stress disorder(PTSD)

CONCLUSION:

- It is more common in adults than children and in women than men. While researchers have some idea of what happens within the brain during migraine attacks, much remains to be discovered about its underlying causes and mechanisms.
- In addition, treatment focuses on avoiding those things that seem to trigger attacks, identifying drugs that prevent or reduce the severity of attacks and drugs that reduce the intense pain of a severe attack.
- The good news is that several classes of drugs are effective for different kinds of migraine and most migraine sufferers can work with their doctor to minimize migraine's effects.





Thank you