[illegible]

[illegible]

[illegible]

[illegible]

19 [illegible]

Headache

By Dr./ Alaa Sedky
Lecturer of Neurology
Department of Neurology and Psychological medicine
2017/2018

Definition

- Headache means pain in the head, It is a common symptom in clinical practice in 93% of males & 99% of females.

- It is a symptom of a disease not a disease

Headache classification

Primary

- Migraine
- Tension-type
- Cluster
- Paroxysmal hemicrania
- SUNCT
- Chronic daily headache

Secondary

- head trauma
- vascular disorders (CVS, AVM, arteritis)
- non vascular disorders (neoplasm)
- Infection (CNS-systemic)

Craniofacial

- Cranial neuralgia (TN- GN)
- Referred Eyes Nose and sinuses Teeth, TMJ

Pathogenesis of headaches.

1. Traction or dilatation of intracranial or extracranial arteries.
2. Traction of large extracranial veins
3. Compression, traction or inflammation of cranial and spinal nerves
4. Spasm and trauma to cranial and cervical muscles.
5. Meningeal irritation and raised intracranial pressure

History

- Headache – quality, severity, location, laterality, onset, **time course – episodic and similar or progressive/changing**
- Associated symptoms – systemic symptoms, fever, personality changes, seizures
- Preceding symptoms – aura, gradual/rapid onset
- Exacerbating features – (migraines worse with activity) (worse with laying or nocturnal or with cough/straining – signs of elevated ICP) (worse with standing – signs of low ICP).
- Medical history – NF1, Sturge-weber, connective tissue disorder, Sickle cell, immunocompromised.

Examination

- Vitals – fever, ICP signs
- Good neurologic exam
  - ? Altered mental status
  - Abnormal eye movements
  - Visual field testing
  - Fundoscopic exam
  - Focal weakness
  - UMN signs
  - Abnormal gait

Work-up

- **Imaging**
  - Trauma
  - Associated seizures
  - Abnormal neurologic exam
  - Historical features – thunderclap headache, persistently lateralized, progressive course, shunt, change in pattern/type, occipital headache
  - Signs of elevated ICP
  - Prior to LP
- **CSF analysis**
  - Pseudotumor (IIH)
    - Accurate recording of pressure.
    - CNS infection
    - immunocompromised
  - SAH
    - Thunderclap headache

Migraine

- common in ♀ (15-20%) than ♂ (5-10%)
- Strong family history is present
- Onset: at /or shortly after puberty
  - Less common before puberty
- Frequency; - may occur 2-3 times/week
  - or 1-2 attacks in lifetime
  - frequency decrease with age
  - ↑ menstruation and ↓ with pregnancy.
- Precipitating factors
- Excitation or excessive work-Extra sleep
- Menses-Bright light
- Strong smells-Minor trauma
- Certain diets e.g.; cheese, chocolate, caffeine, alcohol, nuts, milk or missing meals.

Pathophysiology of Migraine

- Cortical spreading depression activates the trigeminal and parasympathetic systems which causes vasodilatation and release of neuropeptides that cause inflammation.
- Serotonin 5 HT receptors modulate the release of neurogenic peptides.

Diagnostic criteria of migraine

I- Migraine without aura.

A. At least 5 attacks fulfilling B – D criteria

B. Headache attacks lasting 4-72 Hs.

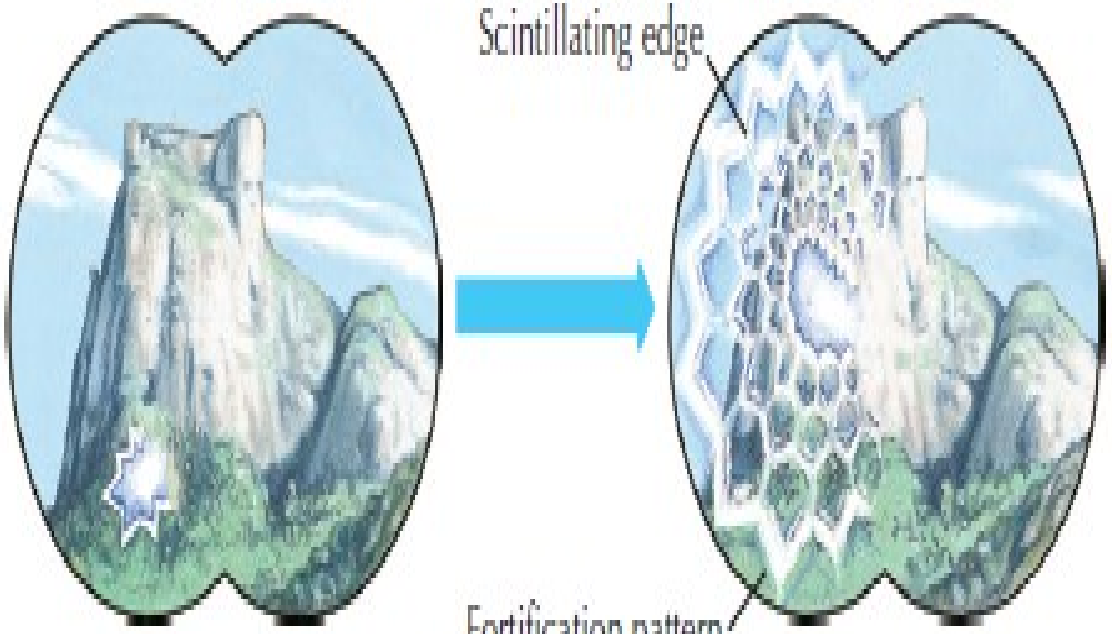
C. Headache has at least two of the following:
   - Unilateral
   - Pulsating
   - Moderate / severe
   - Aggravated by walking or any routine physical stress

D. During headache at least one of the following:
   - Nausea &/ or vomiting
   - Photophobia and phonophobia

II- Migraine with aura.

- Usually headache attacks as migraine above beside an aura symptoms indicating focal cortical or brain stem dysfunction
- Aura symptoms develops gradually over more than 4 minutes- lasting not more than 60 minutes.
- Headache follows aura with free interval of less than 60 minutes.

Scintillating Scotoma and Fortification Phenomena



Early phase: isolated para-central scintillating scotoma

Spread of scotoma to involve entire unilateral visual field

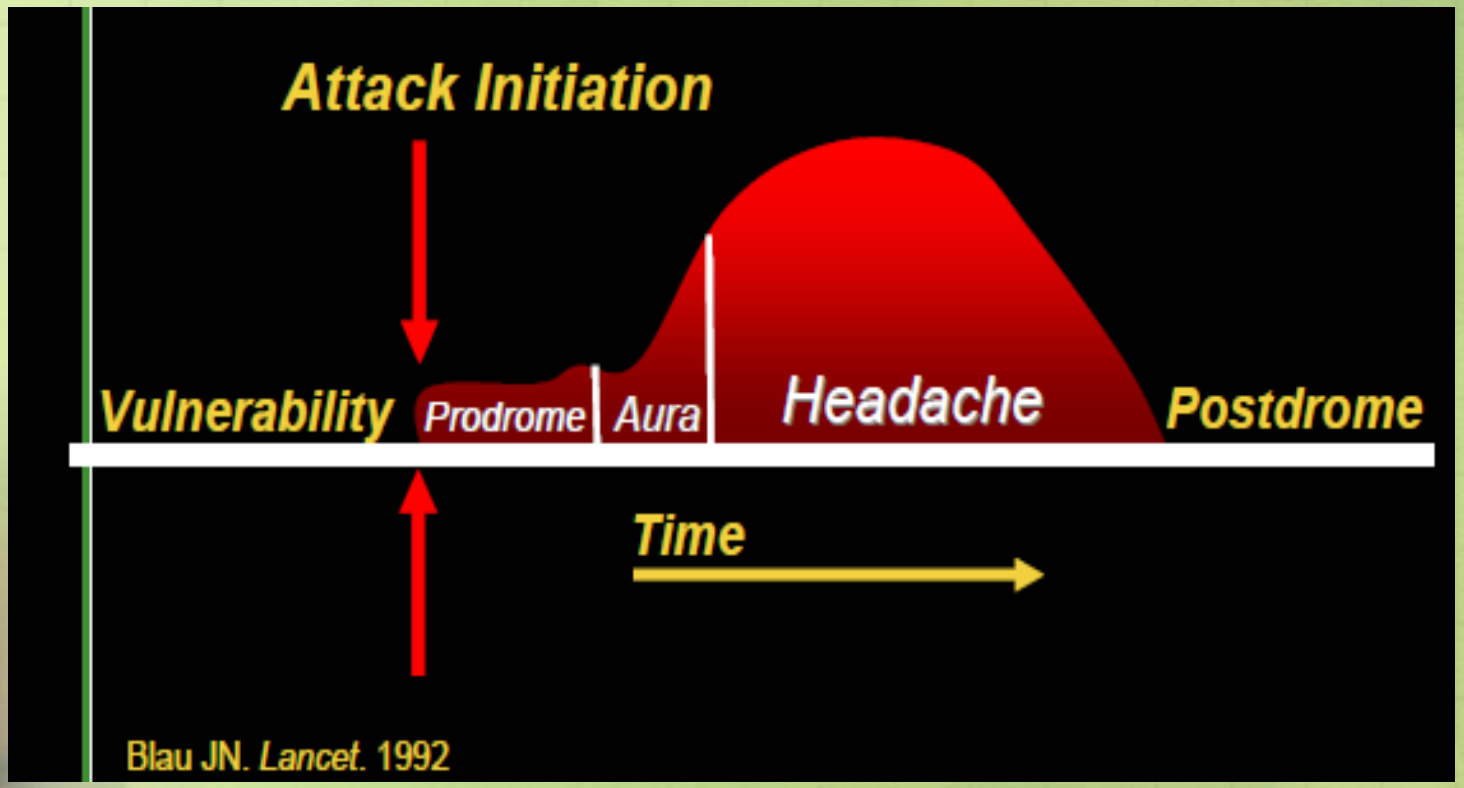
Wavy lines (heat shimmers)

Wavy line distortions in part of visual field similar to shimmers above hot pavement

Metamorphopsia

Distortions of form, size, or position of objects or environment in part of visual field

II- Tempo of Migraine with aura.



Management of Migraine

Acute attack

- I- General measures
- Strong analgesics
- 5HT- receptor antagonist
- Ergot preparation

Prophylactic measures

- AED
  Topiramate-valproate
- B-blockers
- Ca+ channel blockers
- Tri-cyclic antidepressants

Tension type Headache

- Frequently associated with anxiety, depressive disorders and insomnia
- The commonest in 68% of ♂ & 88% of ♀
- Each attack lasts from 30 minutes up to 7 days
- At least two of the following:
  - Pressing / tightening (non-pulsating) quality.
  - Mild or moderate.
  - Bilateral location
  - No aggravation as in migraine
- No nausea or vomiting
- No phonophobia or photophobia
- May be Associated with spasm of / or tender pericranial muscles.

Tension type Headache ; continue

- Usually precipitated by stressful situations, associated with insomnia, lost appetite.
- **Considered chronic if persists for**
  - **more than 15 days / month or**
  - **More than 6 months / year.**

Treatment

Treatment of tension headache

1. Analgesics
2. Muscle relaxants
3. Antidepressants
4. Anxiolytics

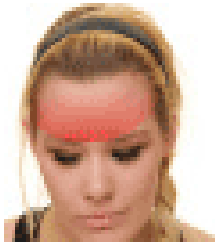
Cluster Headache

- Severe unilateral periorbital,supra-orbital and / or temporal pain.
- Lasting 15-180 minutes
- Recurrent attacks over the day and may awaken the patient from sleep
- Headache is associated with at least one of the following on the pain side
    - Conjunctival injection–Lacrimation
    - Nasal congestion- Rhinorrhhea
    - Miosis – Ptosis- Eyelid edema
    - Forehead and facial sweating.

Treatment:

- Strong analgesics e.g‘’endomethacine’
- Ergot preparations -Antihistaminics

Headaches



Tension

Pain experienced as a squeezing band around the head

Sinus

Pain behind browbone and/or cheekbones

Cluster

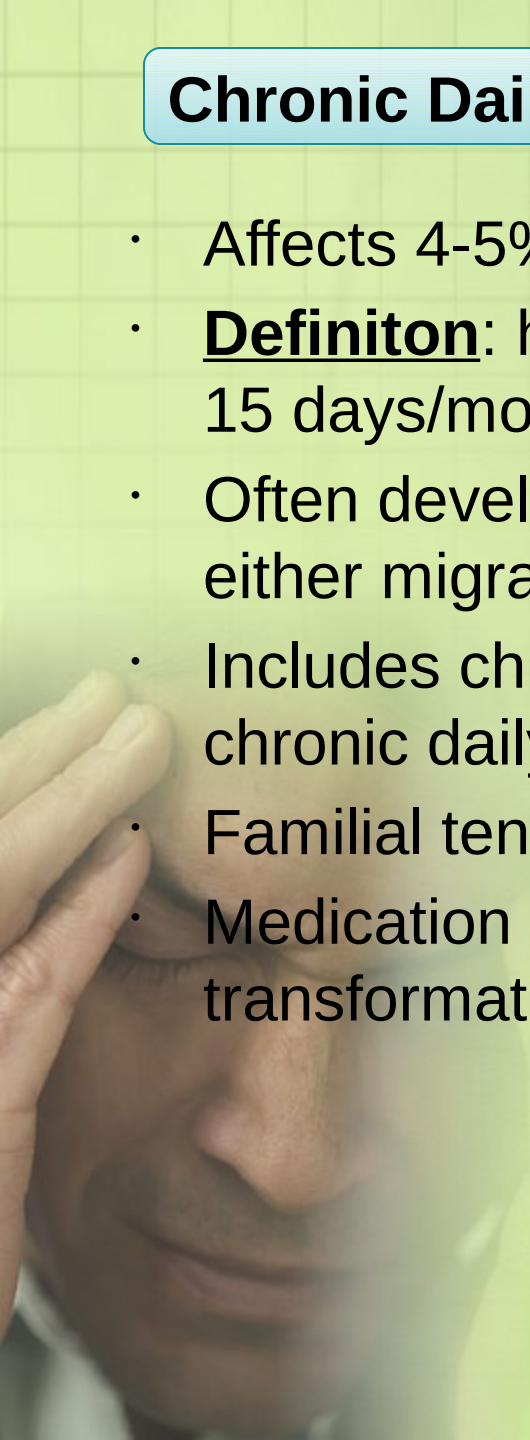
Pain localized in one eye

Migraine

Typical signs are pain,nausea and alfered vision

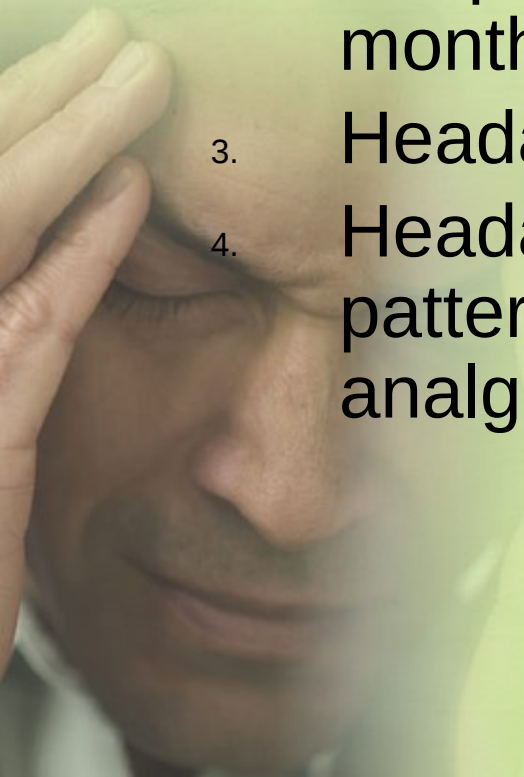
Chronic Daily Headache

- Affects 4-5% of the population.
- **Definiton**: head pain for at least 4 hours for more than 15 days/month.
- Often develops from an episodic headache disorder either migraine or episodic tension type headache
- Includes chronic tension type headache(CTTH) and chronic daily migraine.
- Familial tendency.
- Medication overuse headache may be a factor in the transformation of episodic headache to CDH.



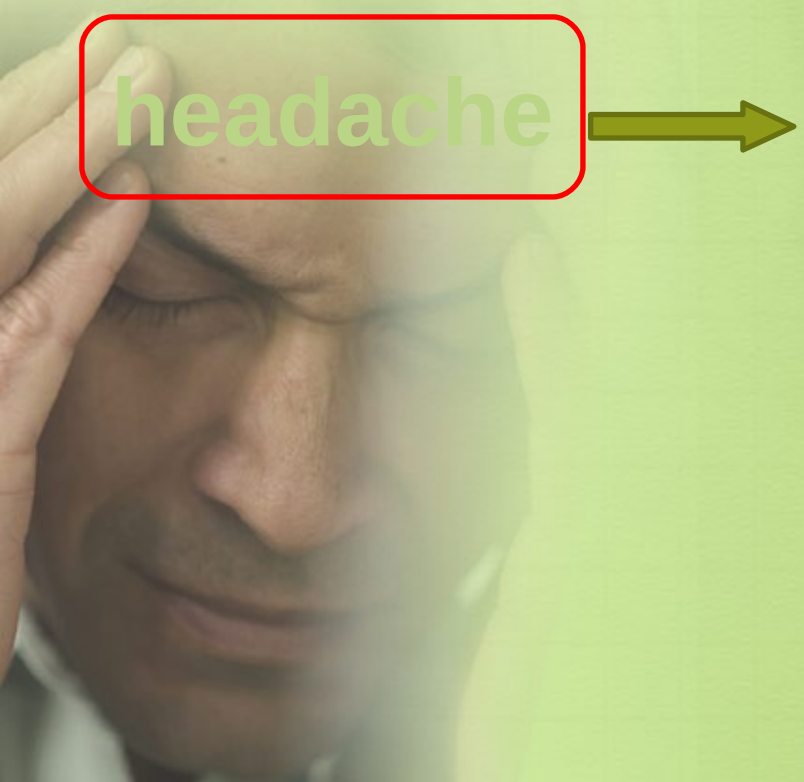
Medication overuse headache. IHS criteria.

1. Headache for 15 days/month with at least one of the following characteristics and 2,3 and 4.
   - **Bilateral**
   - **Pressing/tight non pulsating quality**
   - **Mild/moderate intensity**
2. Simple analgesic use >15 days at month for 3 months
3. Headache has increased during analgesic use
4. Headache resolves or reverts to previous pattern within 2 months after discontinuation of analgesia.



Secondary headaches

Red flags ; history



-
-
-
-
-
-
-
-
-

Secondary headaches

Red flags; examination