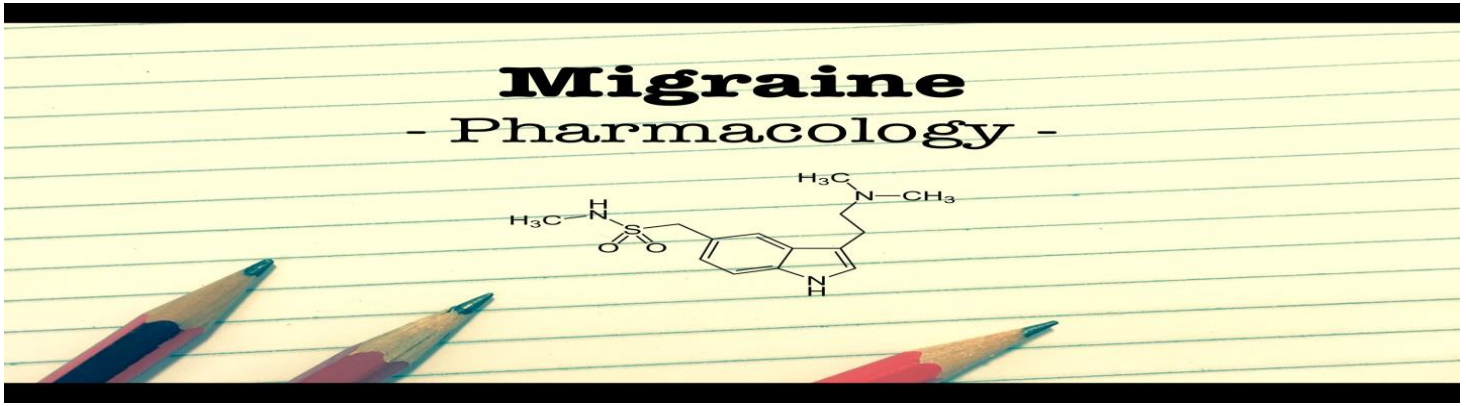

بسم الله الرحمن الرحيم

Treatment of migraine



Migraine is the episodic Headache.

- A severe, unilateral, pulsating (throbbing) headache lasting from a few hours to 1-2 days accompanied by Nausea, Vomiting & photophobia.
- **Migraine** without aura **(common migraine) 80%**
- Migraine with **aura** (**classical migraine**) 20**%**
  - Headache preceded by (20-40 minutes) **neurological symptoms** called **aura** which can be **visual, olfactory or other sensory** experiences**.**

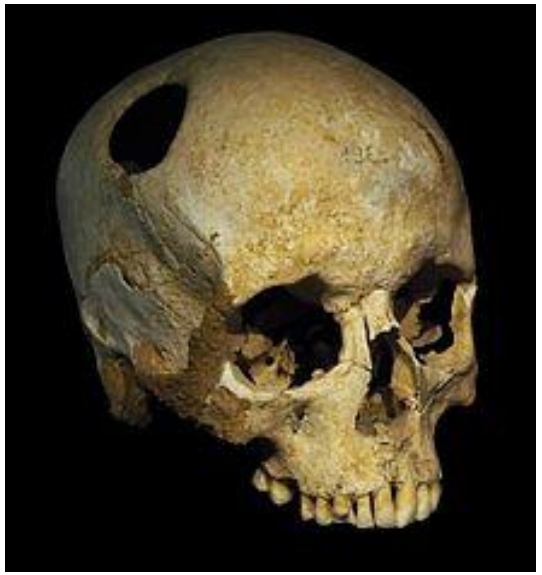
Visual field defects during Aura;

Pathogenesis of migraine;

- Cause unknown, disorder of the **serotonergic** control system.
- Release of vasodilating neuropeptides **(CGRP)** by **trigeminal nerve endings** to intra-cranial (& extra cranial) arteries.
  - **Substance P** & **neurokinin A** may also be involved
- Cerebral **vasodilation** ----- Extravasation of plasma ---- Perivascular edema—mechanical stretching – activation of pain nerve endings.

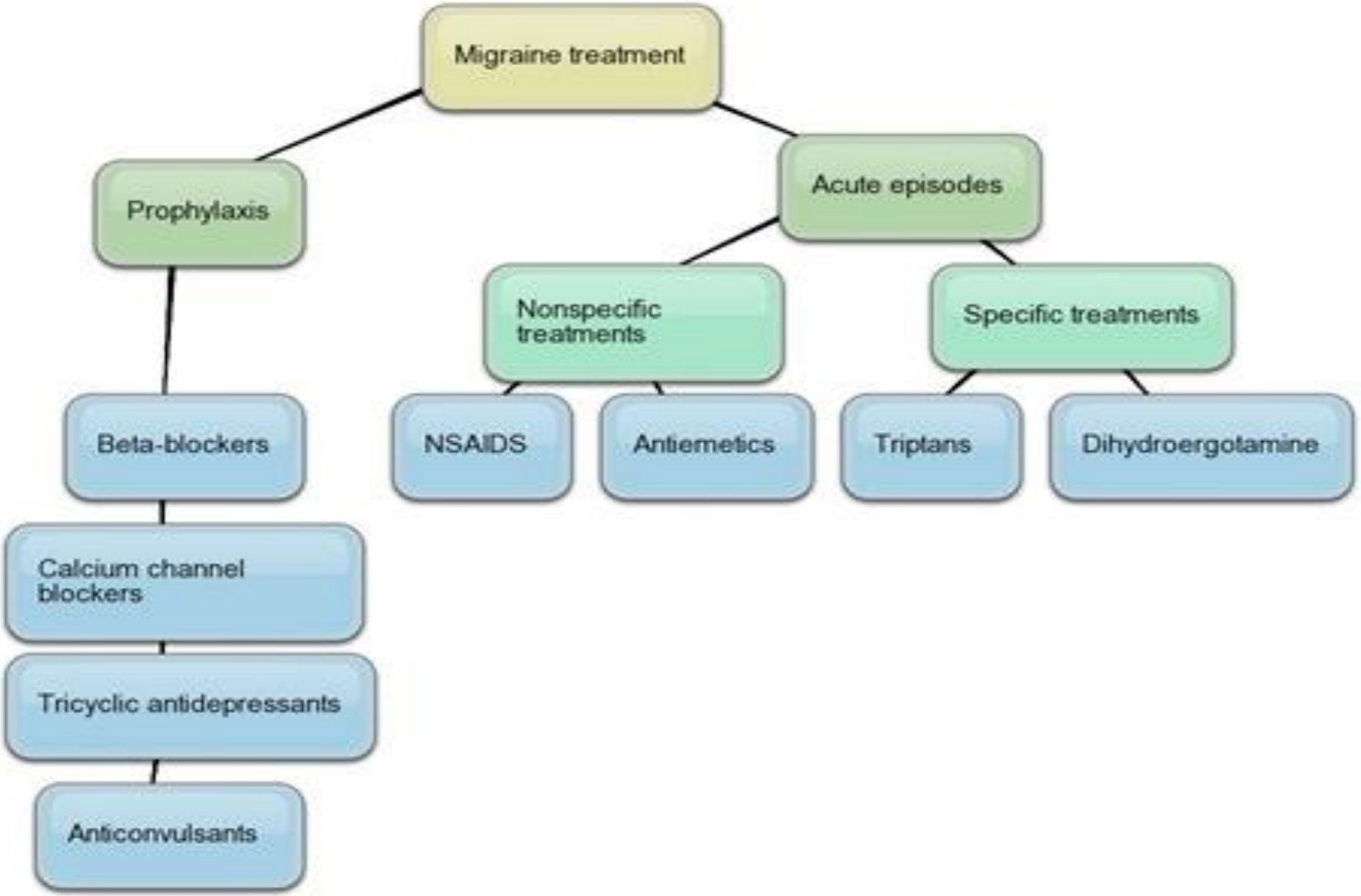
Migraine treatment in old times;

Trepanation; the deliberate **drilling of holes into a skull**, was practiced as early as 7,000 BCE.



- While sometimes people survived, many would have died from the procedure due to infection.
- It was believed to work via "letting evil spirits escape“.

Treatment of migraine;



Treatment of migraine;

- **Treatment of Acute attack of Migraine;**
  - **Non-specific (**mild to moderate **symptomatic relief)**
  - **Migraine specific** leads either to
    - to **vasoconstriction** or
    - to **inhibition of the release of pro-inflammatory neuropeptides.**
- **Prophylaxis of Migraine;**
  - Regular medications to reduce the frequency & or severity of attacks.

Non-specific (symptomatic) Treatment of migraine;

- NSAIDs like **paracetamol** or **aspirin /+**
- antiemetic like **metoclopramide, domperidone, prochlorperazine.**
- Opioids – like nalbuphine in severe migraine.

Specific Treatment of migraine;

	Mode of action	Drug prescribed
1	**Inhibition of release of vasodilating peptides (**proinflammatory neuropeptides**).**	**Triptans,** Ergot derivatives (**dihydroergometrine**) and **antidepressants** may activate **5-HT1D/1B** receptors on **presynaptic trigeminal** nerve ending.
2	**Direct vasoconstriction.**	**5-HT agonists** (the **triptans** and **ergot**) may prevent vasodilatation & stretching of the pain ending.
3	**Anti-seizure drugs**	may **suppress the excessive firing** of these nerve endings e.g., valproate/ topiramate.

Drug treatment according to severity of disease;

Severity	Drug therapy
Mild	Simple analgesics / NSAIDs or their combination +anti emetic.
Moderate	**NSAIDS** combination with **triptans** and ergot alkaloids.
Severe	A triptan /ergot alkaloid (+ anti emetic) + prophylaxis with • Propranolol/ other beta blockers. • Amitriptyline/ other tricyclic antidepressants. • Flunarizine / other Ca channel blockers. • Valproate / topiramate.


Thank You