CAUSES OF HEADACHE

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INTRODUCTION

 Headache disorders are among the most common disorders of nervous system (WHO,2023)

Headache disorders impose a recognizable burden on sufferers

• In Uganda prevalence of headache among HIV positive patients in rural Rakai was 28% (Sachal et al, 2019)

• 19% met criteria for migraine , 55% reported functional impairment and 37% reported substantial or severe impact of headache

CLASSIFICATION OF HEADACHE

Primary headache

Secondary headache

Remember to

- Understand who the patient is
- Understand their symptom(s)
- Understand their past medical history
- Understand their drug history
- Understand their family history
- Understand their social history
- Understand the signs they have

PAIN PRODUCING STRUCTURES IN THE HEAD

- Scalp
- Middle meningeal artery
- Dural sinuses
- Falx cerebri
- Proximal segments of the large pial arteries.

PAIN INSENSITIVE STRUCTURES IN THE HEAD

The ventricular ependyma

Choroid plexus

Pial veins

Much of the brain parenchyma

HEADACHE RED FLAGS

Systemic symptoms and signs – fever, weight loss, myalgia

Secondary risk factors e.g. HIV, Cancer etc.

• Neurological symptoms e.g. focal weakness, convulsions

Older than 50 yrs. of age

HEADACHE RED FLAGS

- Abrupt onset of headache
- Papilledema
- Positional headache esp. worse on lying down and better sitting up
- Pattern change
- Precipitated by Valsalva's maneuver

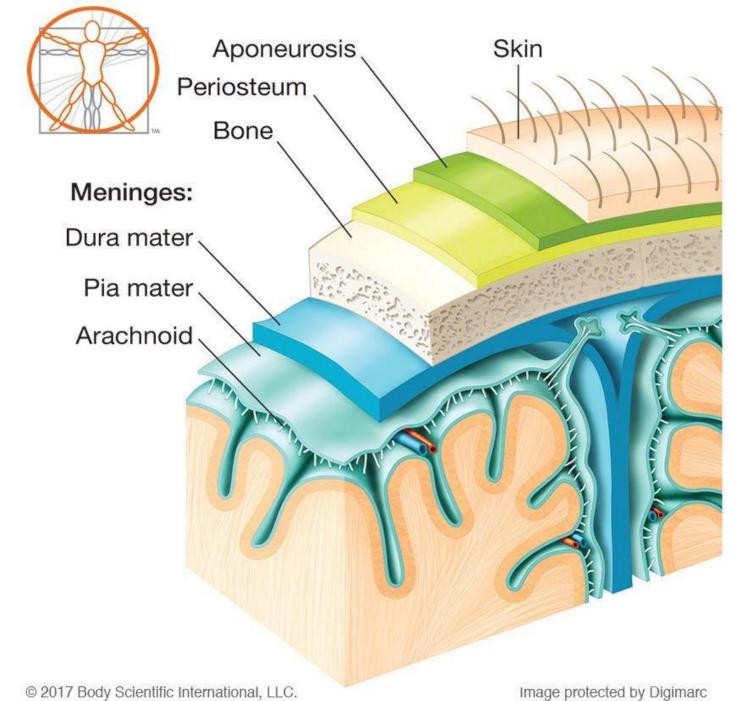
Meningitis - infection, carcinomatous

Subarachnoid hemorrhage

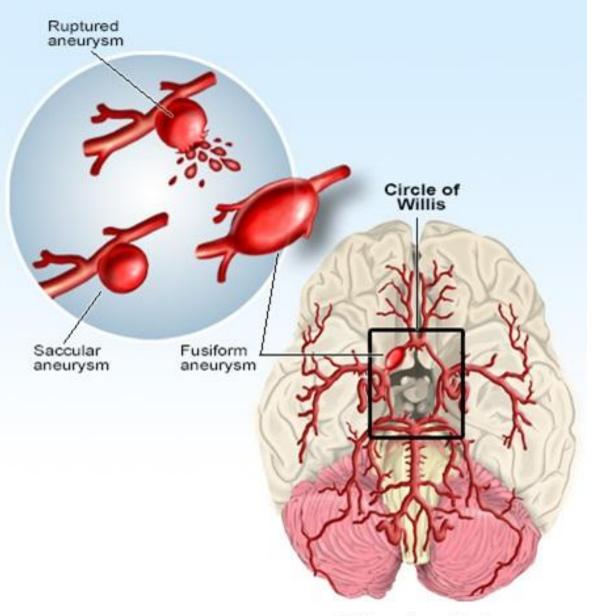
Subdural hematoma

Epidural hematoma

Intracerebral hemorrhage

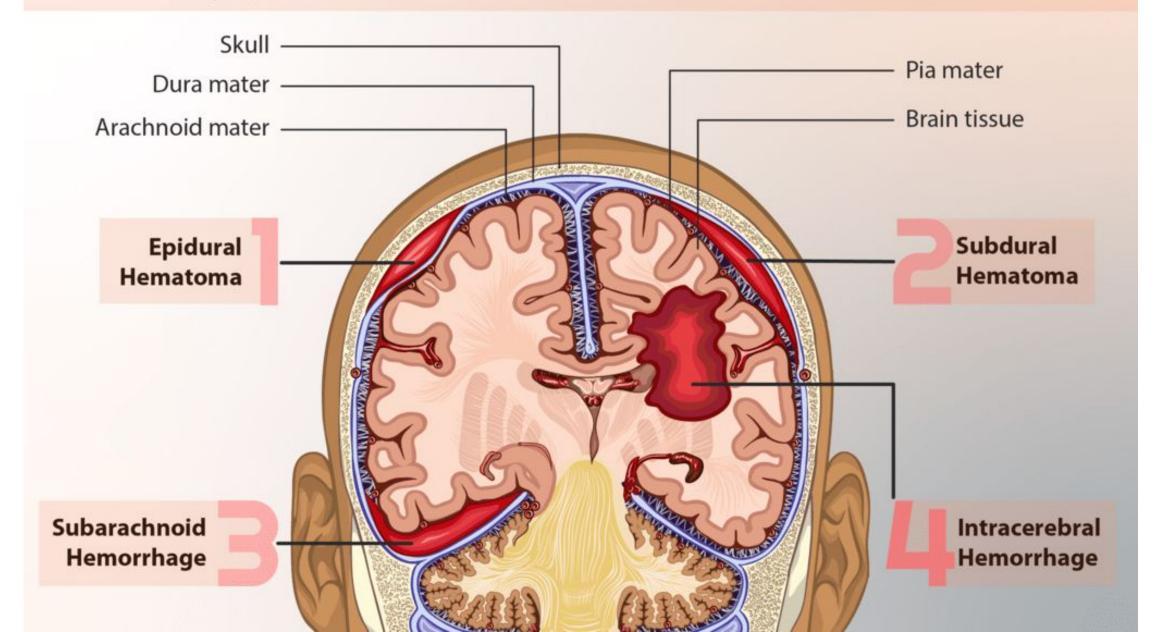


Brain Aneurysm



Bottom view of brain and major arteries of the brain

Types of brain hemorrhage



Cerebral venous thrombosis

Posterior reversible encephalopathy syndrome

Reversible cerebral vasoconstriction syndrome

Temporal arteritis

Carotid/vertebral artery dissection

• Hypertension emergencies-preeclampsia, eclampsia

Pituitary apoplexy

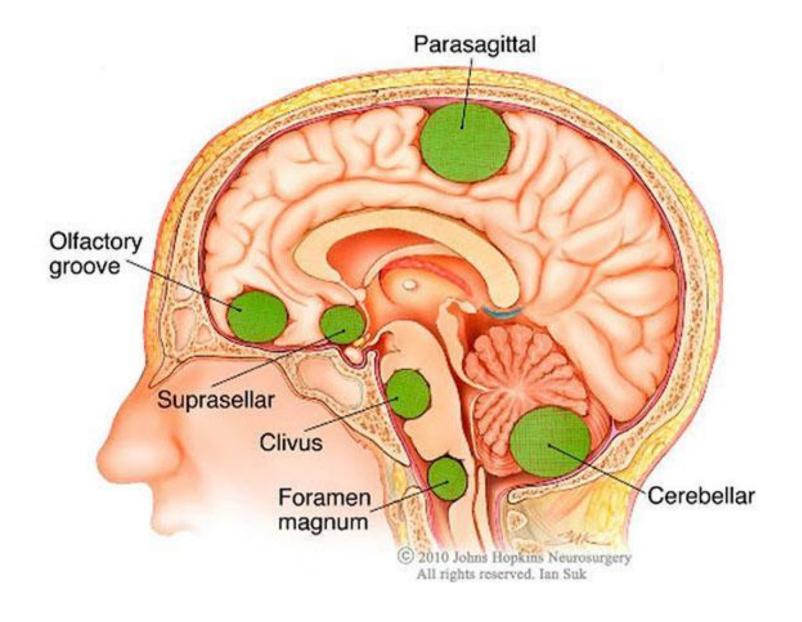
Brain tumors

Slowly growing third ventricle colloid cysts

Intracranial hypotension

Idiopathic intracranial hypertension

Brain tumors



• Neuralgia- trigeminal neuralgia, occipital neuralgia

Ocular- eye strain, acute glaucoma

• ENT- sinusitis

Metabolic-hypoxia, hypercapnia

Primary headache

Migraine

• Trigeminal autonomic cephalgia-cluster headache

Tension headache

Migraine headache

Most common non life threatening headache

More in females

• Starts in childhood and peaks at approx. 40 years

Aura and prodrome

Migraine headache

- Unilateral
- Pulsating / throbbing
- Associated with nausea and vomiting
- Photophobia and phonophobia
- Family history

Cluster headache

- Not very common
- More in men
- Commonly start in adulthood
- Occur in clusters with circadian and circannual pattern
- Can occur daily for a week and remit for at least 4 weeks
- Unilateral and excruciating but brief

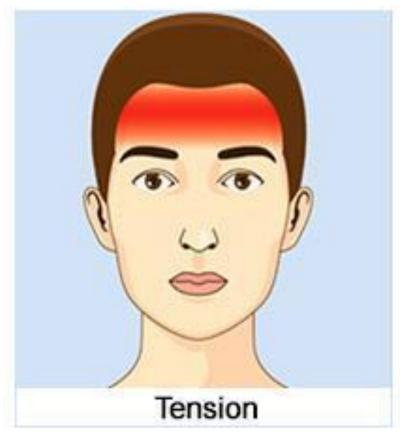
Cluster headache-autonomic symptoms

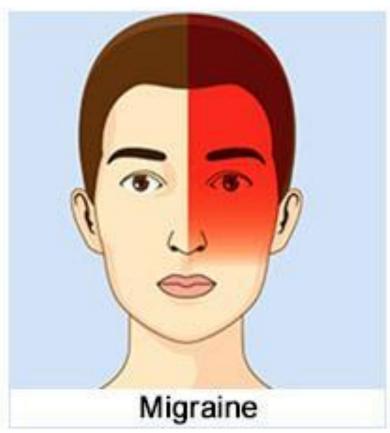
- Lacrimation
- Conjunctival injection
- Nasal congestion
- Ptosis, miosis
- Edema of eyelid / face
- Sweating of forehead

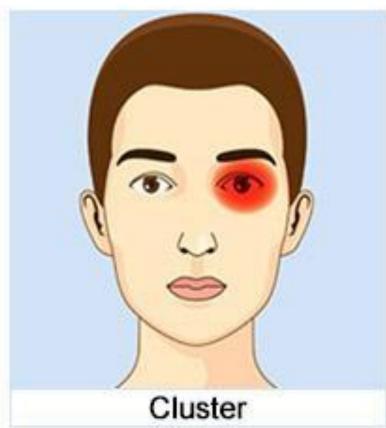
Tension headache

- Characterized by bilateral tight, band-like discomfort.
- Builds slowly, fluctuates in severity, and may persist more or less continuously for many days.
- The headache may be episodic or chronic (present >15 days per month).
- No accompanying features like nausea, vomiting, photophobia, phonophobia, osmophobia, throbbing
- No aggravation with movement

Headache Types







References

• Tintinallis Emergency Medicine 9th edition

• Harrison principles of Internal Medicine 9th edition