بسم الله الرحمن الرحيم

HEADACHE AND FACIAL PAIN



Prof. Mohamad Shehadeh Agha MD MRCP(UK) HEADACHE IS THE ONLY OR PREDOMINANT COMPLAINT IN APPROXIMATELY 20% OF NEW NEUROLOGICAL OUT-PATIENT REFERRALS.

PERHAPS 60% OF THESE PATIENTS WILL HAVE EITHER MIGRAINE OR TENSION HEADACHE.

LESS THAN 2% OF HEADACHES ARE DUE TO A SERIOUS CAUSE.

MOST HEADACHES CAN BE DIAGNOSED ON THE HISTORY.

PAINFUL STRUCTURES IN THE HEAD AND FACE:

- 1. SKIN
- 2. MUSCLES
- 3. PERIOSTEUM OF THE SKULL
- 4. PARTS OF THE DURA
- 5. WALLS OF THE LARGE ARTERIES AND VEINS
- 6. LOCAL STRUCTURES: TEETH, EYES, SINUSES, TMJ & CERVICAL SPINE

Do you suffer from any of the following?

Ear Problems Head Pain, Headache 1. Hissing, buzzing or ringing Forehead

- 2. Temples
- 3. "Migraine" type
- 4. Sinus type
- 5. Shooting pain up back of head
- 6. Hair and/or scalp painful to touch

Eyes

- 1. Pain behind eyes
- 2. Bloodshot eyes
- 3. May bulge out
- 4. Sensitive to sunlight

Mouth

- Discomfort
- 2. Limited opening of mouth
- 3. Inability to open smoothly
- 4. Jaw deviates to one side when opening
- 5. Locks shut or open
- 6. Can't find bite

Teeth

- 1. Clenching, grinding at night
- Looseness and soreness of back teeth

- Decreased hearing
- 3. Ear pain, ear ache, no infection
- 4. Clogged, "itchy" ears
- Vertigo, dizziness

Jaw Problems

- 1. Clicking, popping jaw joints
- 2. Grating sounds
- Pain in cheek muscles
- 4. Uncontrollable jaw and/or tongue movements

Neck Problems

- 1. Lack of mobility, stiffness
- 2. Neck pain
- Tired, sore muscles
- Shoulder aches and backaches
- Arm and finger numbness and/ or pain

Throat

- 1. Swallowing difficulties
- 2. Laryngitis
- 3. Sore throat with no infection
- 4. Voice irregularities or changes
- 5. Frequent coughing or constant clearing of throat
- Feeling of foreign object in throat constantly

MAIN QUESTIONS TO ASK:

- 1. EPISODIC OR CONTINUOUS
- 2. UNILATERAL OR BILATERAL
- 3. ACUTE/SUBACUTE/CHRONIC

HISTORY

- First occurrence
- Timing
- Quality
- Treatments
- Associated symptoms
- Precipitating factors
- Relieving factors

PAST MEDICAL HISTORY

- Head injuries, infections, surgeries
- Psychiatric diagnoses
- Medications
 - OTC analgesics
 - OCP
 - Herbal medications
 - Antihypertensives & vasodilators
- Alcohol, tobacco, drugs

LOCALIZATION:

- 1. FRONTAL
- 2. OCCIPITAL
- 3. TEMPORAL
- 4. VERTEX
- 5. ORBITAL

QUALITY OF PAIN:

- 1. PULSATING (THROBBING)
- 2. TENSE/TIGHT
- 3. LIKE WEIGHT ON HEAD
- 4. PRESSURE
- 5. SHARP/ STABBING

INTENSITY:

- 1. PREVENTS DAILY ACTIVITY
- 2. ACUTELY SEVERE

ASSOCIATED SYMPTOMS:

- 1. NAUSEA/VOMITING
- 2. PHOTOPHOBIA/PHONOPHOBIA/OSMOPHOBIA
- 3. RED EYE/ LACRIMATION/ RHINORRHOEA
- 4. DIZZINESS
- 5. CERVICAL PAIN
- 6. TINGLING & NUMBNESS
- 7. FEVER
- 8. VISUAL DISTURBANCE

PRECIPITATING FACTORS:

- 1. SLEEP
- 2. FASTING
- 3. EXERCISE
- 4. MENSTRUAL PERIOD
- 5. SEXUAL ACTIVITY
- 6. FOOD
- 7. COUGH

RELIEVING FACTORS

- 1. Pressure on the scalp
- 2. Hot or cold compresses
- 3. Dark room
- 4. Rebreathing into a paper bag
- 5. Inhaling 100% oxygen
- 6. Clearing sinuses
- 7. Voluntary relaxation of forehead and jaw muscles
- 8. Alcohol

FAMILY HISTORY:

- 1. MIGRAINE
- 2. FAMILIAL HEMIPLEGIC MIGRAINE
- 3. OCCASIONALLY TENSION HEADACHE

TIMING:

- 1. MORNING
- 2. NOCTURNAL
- 3. DAILY
- 4. DURATION OF THE ATTACK
- 5. FREQUENCY PER WEEK/MONTH/YEAR

PHYSICAL EXAMINATION

- Complete head & neck exam
 - Cranial nerves
 - TMJ & muscles of mastication
 - Scalp vessels
 - Trigger points

PHYSICAL EXAMINATION

- Neurologic examination
 - Papilloedema
 - Sixth nerve palsy
 - Meningeal signs
 - Weakness
 - Sensory deficit
- General examination
 - Hypertension

HEADACHES

- Classified into two groups
 - Primary
 - Cluster
 - Migraine
 - Tension
 - Secondary
 - Organic disorders

MIGRAINE WITHOUT AURA:

AT LEAST 5 ATTACKS FULFILLING THE FOLLOWING CRITERIA:

- 1. HEADACHE LASTING 4-72 H.
- 2. AT LEAST 2 OF THE FOLLOWING CHARACTERISTICS:
 UNILATERAL LOCATION
 PULSATING QUALITY
 MODERATE OR SEVERE INTENSITY
 AGGRAVATED BY WALKING, CLIMBING STAIRS, ETC...
- 3. DURING HEADACHE AT LEAST ONE OF THE FOLLOWING:

NAUSEA OR VOMITING
PHOTOPHOBIA AND PHONOPHOBIA



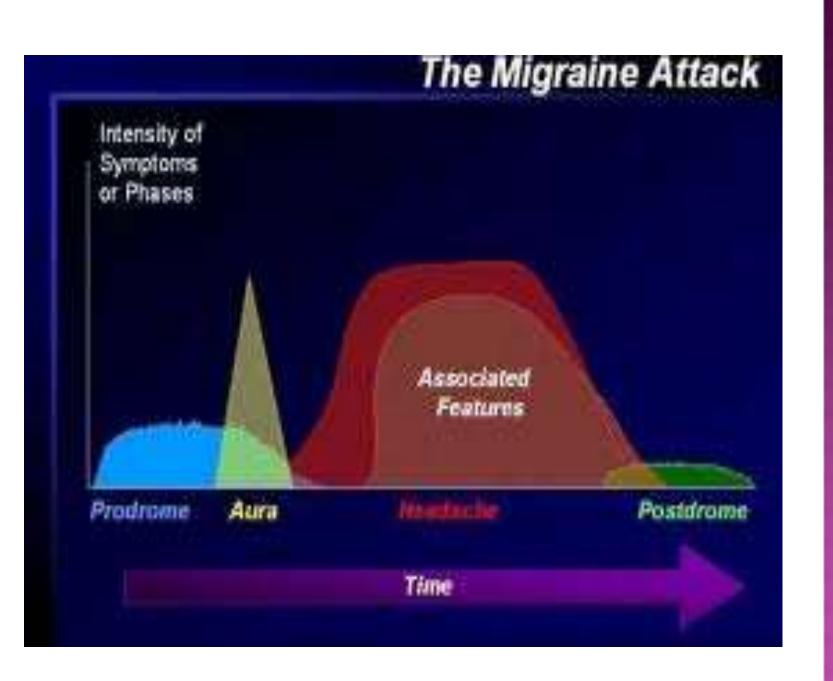
MIGRAINE WITH AURA:

ALL THE ABOVE PLUS AURA

- 1. VISUAL
- 2. SENSORY
- 3. MOTOR
- 4. SPEECH

Potential Phases of a Migraine Attack

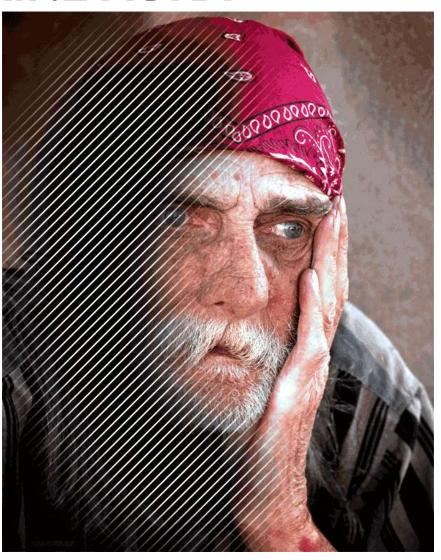
- 1. Prodrome
- 2. Aura
- 3. Headache
- 4. Postdrome



MIGRAINE AURA



MIGRAINE AURA



ZIG-ZAG LINES



ALICE IN WONDERLAND





TENSION-TYPE HEADACHE:

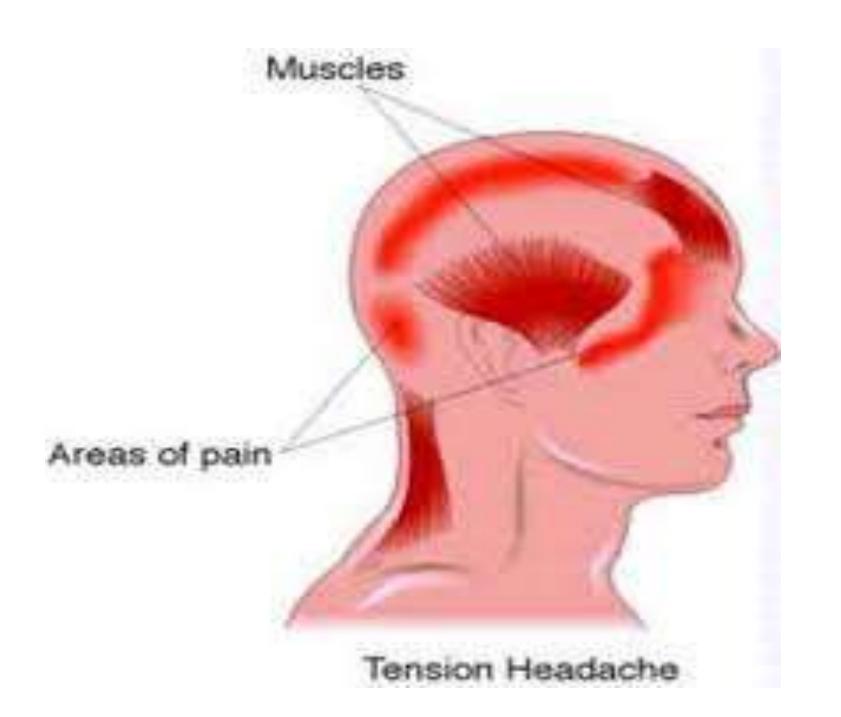
AT LEAST 10 PREVIOUS HEADACHE EPISODES

- 1. HEADACHE LASTING FROM 30MIN TO 7/7
- 2. AT LEAST 2 OF THE FOLLOWING PAIN CHARACTERISTICS:

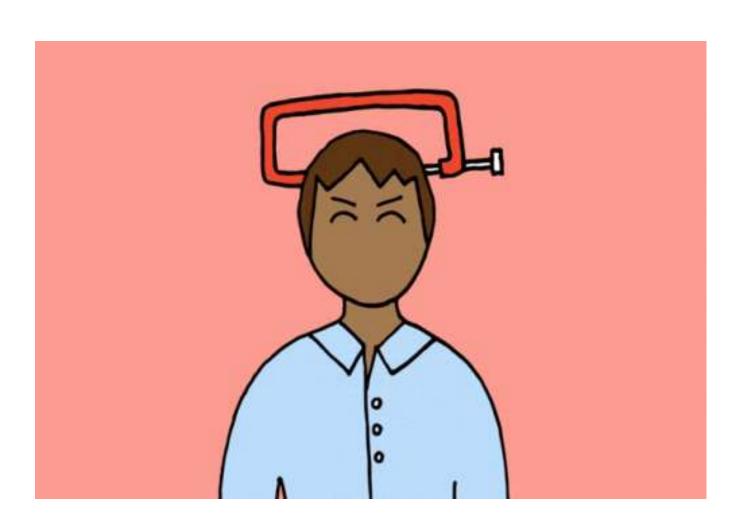
PRESSING OR TIGHTENING QUALITY
MILD OR MODERATE INTENSITY
BILATERAL LOCATION
NO AGGRAVATION BY WALKING, CLIMBING STAIRS,
ETC...

3. BOTH OF THE FOLLOWING
NO NAUSEA OR VOMITING
NO PHOTOPHOBIA AND PHONOPHOBIA(OR ONLY ONE)





TENSION



CLUSTER HEADACHE:



AT LEAST 5 ATTACKS FULFILLING THE FOLLOWING CRITERIA:

- 1. SEVERE UNILATERAL ORBITAL, SUPRA-ORBITAL AND/OR TEMPORAL PAIN LASTING 15-180 MIN UNTREATED
 2. HEADACHE IS ASSOCIATED WITH AT LEAST 1 THE FOLLOWING
- CONJUNCTIVAL INJECTION, LACRIMATION, NASAL CONGESTION,
- RHINORRHOEA, FOREHEAD AND FACIAL SWEATING, MIOSIS,
 - PTOSIS, EYELID OEDEMA.
- 3. FREQUENCY FROM EVERY OTHER DAY TO EIGHT EACH DAY



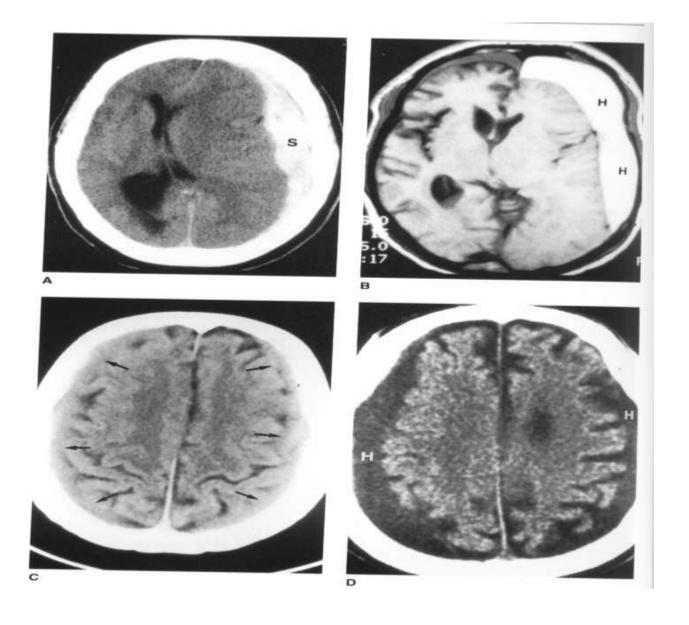
CHRONIC DAILY HEADACHE

- 6 days a week for 6 months
- Bilateral, frontal or occipital
- Non-throbbing
- Moderately severe
- Due to overuse of analgesics
- ? Transformation of migraine or TTH

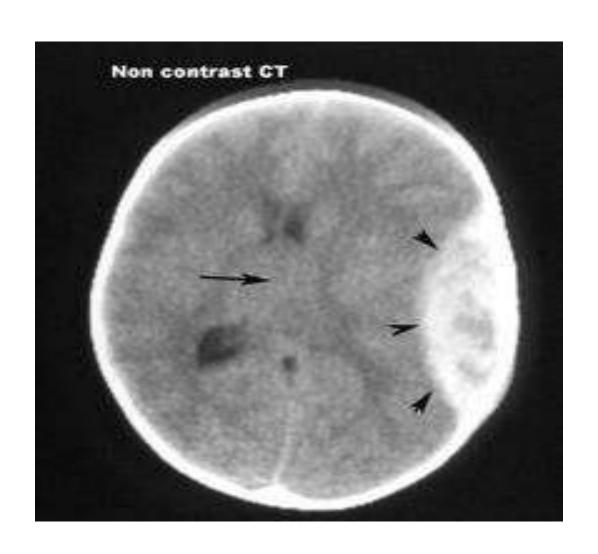
SUB-DURAL HAEMATOMA

- 1. HEADACHE
- 2. IMPAIRED OR FLUCTUATING CONSCIOUSNESS
- 3. WEAKNESS
- 4. DYSPHASIA
- 5. FOLLOWING HEAD INJURY (MAY BE TRIVIAL)
- 6. BRAIN CT SCAN





EPIDURAL HEMATOMA



RAISED INTRACRANIAL PRESSI

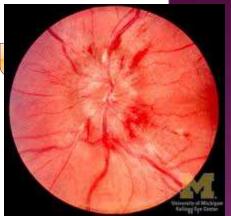
- 1. HEADACHE
- 2. VOMITING
- 3. VISUAL DISTURBANCE

 (PAPILLEDEMA/ VI CN PALSY)
- 4. ALTERED CONSCIOUS LEVEL

COMMON CAUSES:

SPACE OCCUPYING LESION

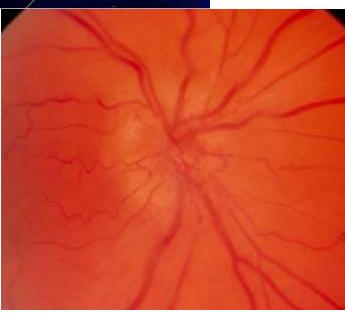
BENIGN INTRACRANIAL HYPERTENSION



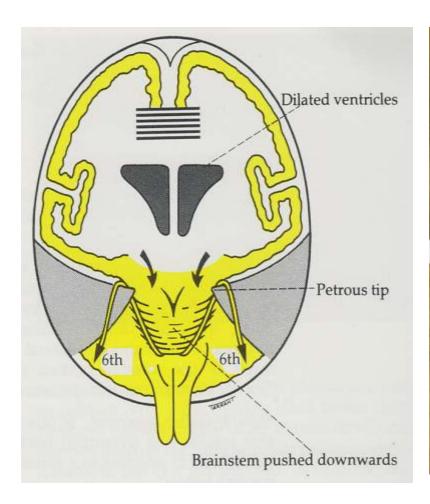
PAPILLEDEMA







VI CN LESION DUE TO RAISED ICP







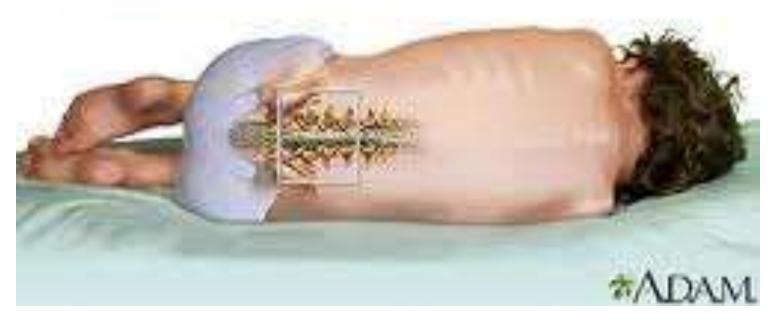
Idiopathic Intracranial Hypertension "Pseudotumor Cerebri"

- Primarily in young, obese women of childbearing age
- Headache (CDH), transient visual obscurations (seconds), pulsatile intracranial noises, double vision
- Typically visual acuity and color are preserved, but optic nerve-related visual field defects are present in > 90% of patients (e.g., enlarged blind spots, generalized constriction, and inferior nasal field loss)
- Several predisposing factors have been identified, including the use of oral contraceptives, anabolic steroids, tetracycline, and vitamin A





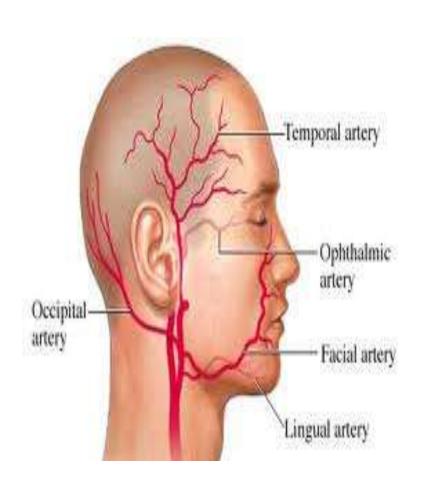
Spinal fluid is collected for testing

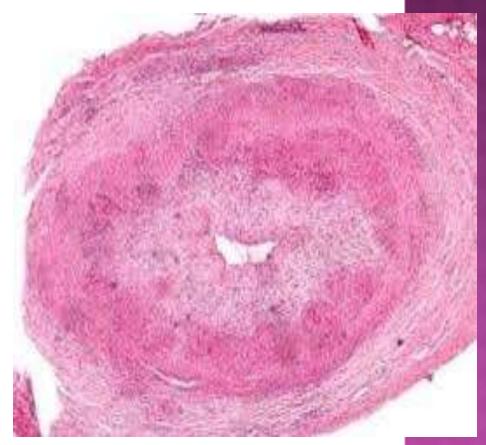


TEMPORAL OR GIANT CELL ARTERITIS:

- 1. HEADACHE, USUALLY LOCALIZED
- 2. PAIN ON CHEWING (JAW CLAUDICATION)
- 3. GENERAL MALAISE
- 4. PROXIMAL MUSCLES STIFFNESS
- 5. VISUAL LOSS
- 6. ELDERLY
- 7. ENLARGED AND TENDER TEMPORAL ARTERY
- 8. HIGH ESR, TEMPORAL ARTERY BIOPSY
- 9. STEROID

TEMPORAL OR GIANT CELL ARTERITIS





TEMPORAL OR GIANT CELL ARTERITIS

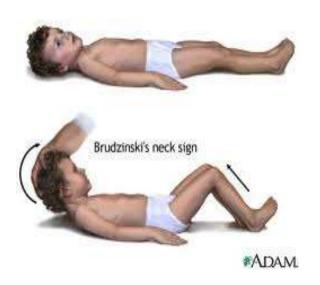


HEADACHE+SIGNS OF MENINGISM

- 1. MENINGITIS
- 2. SUBARACHNOID HAEMORRHAGE

NEEDS IMMEDIATE ADMISSION

MENINGEAL SIGNS





*ADAM



SUBARACHNOID HAEMRRHAGE:

- 1. SUDDEN, SEVERE HEADACHE
- 2. NAUSEA & VOMITING
- 3. LOSS OF CONSCIOUSNESS
- 4. NECK STIFFNESS
- 5. BRAIN CT SCAN
- 6. RARELY CSF
- 7. DSA





MENINGITIS:

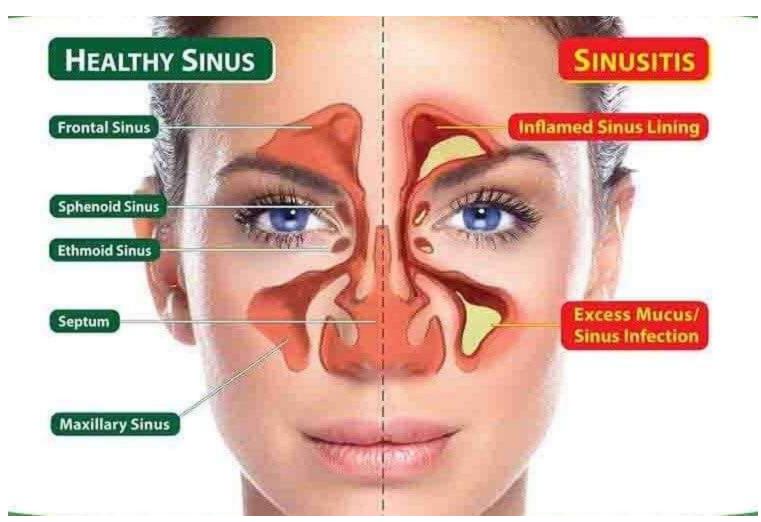
- 1. HEADACHE
- 2. NAUSEA & VOMITING
- 3. FEVER
- 4. NECK STIFFNESS
- 5. CSF ANALYSIS

Normal meninges Cerebral spinal fluid Infected meninges Infected cerebral spinal fluid Swollen tissue

CSF FINDINGS IN MENINGITIS

	Appearance	Opening Pressure	WBC (cell/µL)	Protein (mg/dl)	Glucose (mg/dL)
Normal	Clear	90-180	<8	15-45	50-80
Bacterial Meningitis	Turbid	Elevated	>1000-2000	>200	<40
Viral Meningitis	Clear	Normal	<300; Lymphocytic predominance	<200	Normal
Fungal Meningitis	Clear	Normal- elevated	<500	>200	Normal - Low

SINUS HEADACHE



SINUS HEADACHE

Clinical features:

- Constitutional symptoms.
- Headache.
- Pain.
- Tenderness.
- Redness and edema of cheek.
- Nasal discharge.
- Postnasal discharge.

BENIGN SEX HEADACHE

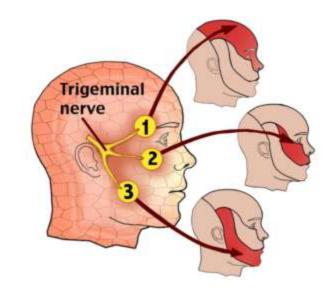
- Sudden severe HA which occurs at the moment of orgasm in men or women
- First attack difficult to distinguish from subarachnoid headache but no loss of consciousness or vomiting
- Disappear spontaneously
- Beta blocker





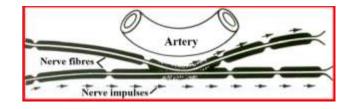
TRIGEMINAL NEURALGIA

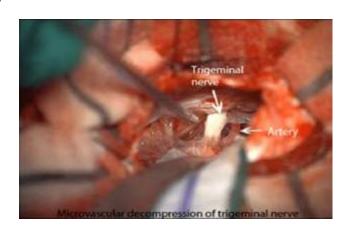
- Paroxysmal pain seconds to < 2 min
- Distributed along 5th cranial nerve
- Asymptomatic between attacks
- Trigger points



PATHOPHYSIOLOGY

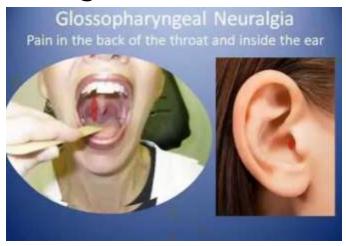
- Demyelination of the trigeminal nerve, causing ectopic impulses and then ephaptic conduction
- Vascular compression of the nerve root by aberrant or tortuous vessels





GLOSSOPHARYNGEAL NEURALGIA

- Similar to Trigeminal Neuralgia
- Unilateral pain
 - Pharynx
 - Soft palate
 - Base of tongue
 - Ear
 - Mastoid



Treatment as for Trigeminal Neuralgia

ATYPICAL FACIAL PAIN

- Diagnosis of exclusion
- ? Psychogenic facial pain
- Location and description inconsistent
- Women, 30 50 years old
- Usually accompanies psychiatric diagnosis
- Treat with antidepressants

