Headache and Facial Pain

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Introduction

- It is the most common neurologic complain
- The diagnosis usually made by proper history only
- In most patients a proper diagnosis can not be made

Differential Dx

- ◦ Migraine headache
- ◦ Tension headache
- ◦ Cluster headache
- ◦ Rhinogenic headache
- ◦ Trigeminal neuralgia
- ◦ Herpes zoster
- ◦ Tolosa-Hunt syndrome
- ◦ First bite syndrome
- ◦ Eagle Syndrome
- ◦ Giant cell arteritis
- ◦ Carotidynia

Types of headache

- Primary :
  - Tension headache
  - Migraine
  - Cluster headache
- Secondary :
  - Medication overuse
  - Closed angle glaucoma
  - Sinusitis
  - Increased ICP

Diagnosis

- History is the most important method of diagnosis
- Clinical examination:
  - Mainly to R/O secondary headache
    - Retina exam
    - Neurological deficit
    - Sinusitis findings
- Investigations:
  - Should never be used to reassure the patient

Migarine

- Second most common form of headache
- Prevalence 10% of population
- 18% in women, 6% in men
- Peak age onset 20's-30's
- Recurrent episodes of severe, throbbing, unilateral headaches

Migarine

- Associated Symptoms:
- ◦ Nausea, vomiting, photophobia, phonophobia
- Precipitating factors
- ◦ Stress, lack of sleep, hormonal changes, diet, etc.
- Pathophysiology (Theories)
- ◦ Vasospasm
- ◦ Cortical Spreading Depression

Migraine Rx

- **Nonpharmacologic**:
- Avoid triggers
- ◦ Symptom Diary
- ◦ Dietary modifications
- ◦ Regularity in exercise,

eating, sleeping

- **Photophobia/Phonophobia**:
- ◦ Lay down in a dark/quiet
- room

Migraine RX
Abortive

- ◦ **Triptans/Ergot derivatives**
- Sumatriptan, rizatriptan,
- ergotamine tartrate
- If used >2d/wk can cause
- ergot-induced headache
- S/E-nausea, angina
- ◦ **Fioricet**
- acetaminophen, caffeine
- ◦ **Fiorinal**
- ASA, caffeine

Migraine RX prophylactic

- **Episodes >5/mo**
- ◦ **Antihypertensives:**
- BB-Metoprolol, propranolol
- ◦ **Antidepressants**
- amitriptyline
- ◦ **Anticonvulsants**:
- Gabapentin, valproic acid
- ◦ **NSAIDs**
- ◦ **BOTOX**:
- Chronic migraines

Tension headache

- Most common headache
- Affects 80% of population:
- **more common in women**
- **Triggered by stress or anxiety**
- Headaches are bilateral, with a tightening/band-like sensation, in the frontotemporal region, radiates to occipital region and trapezius muscles.
- Onset is gradual, pain is non-throbbing and constant .

Tension headache Rx

Nonpharmacologic

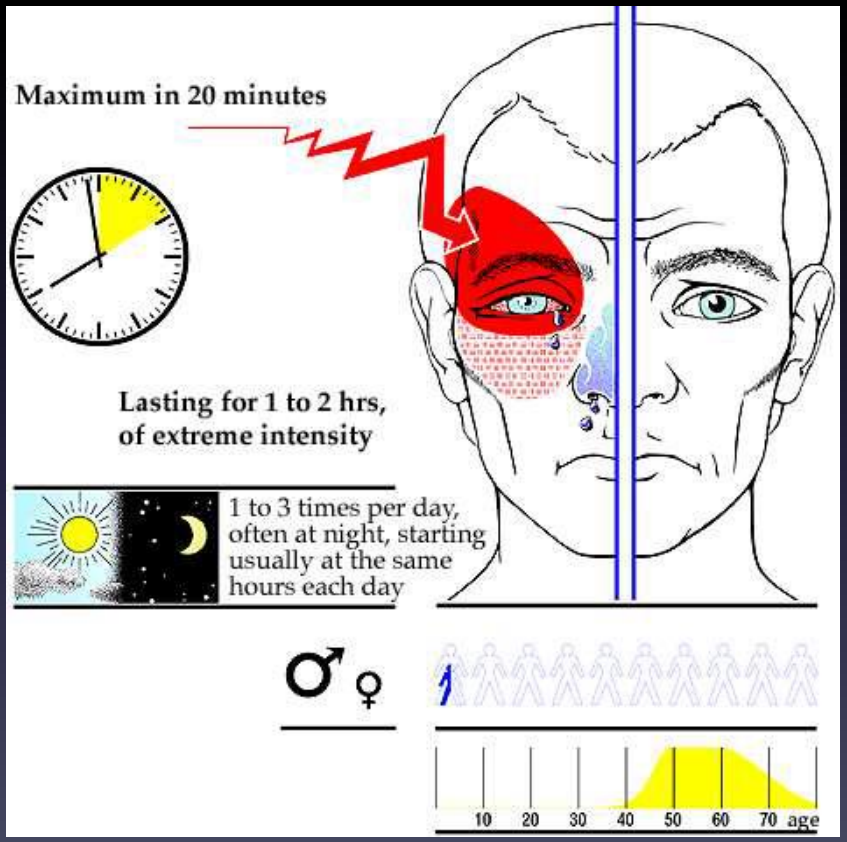
- ◦ Reassurance, muscle relaxation, stress management, biofeedback, physical therapy
- with thermal modulation or electrical stimulation.

Pharmacological

- **Abortive:**
- Acetaminophen, ASA, caffeine, NSAIDs
- Should not be taken >2 days/week
- **Prophylactic:**
- Reserved for patients with frequent headaches >2/wk
- Amitriptyline-first line
- Topiramate, valproate, venlafaxine

Cluster headache

- Less common than migraine or tension headaches
- Men>Women (3:1)
- ◦ Middle age
- Headaches are unilateral, excruciating, and located around the eyes or in the maxilla.
- Associated with unilateral lacrimation, rhinorrhea, and injected conjunctiva, +/- ptosis and miosis.
- No aura or nausea.
- Pain lasts minutes - ~2-3 hours



Cluster headache Rx Abortive

- Inhalation of 100% 02 x 10 minutes
- Triptans
- Sumitriptan 6 mg subcutaneously, relief in 15 min
- Zolmitriptan PO, relief in 30 min
- Dihydroergotamine IM or IV, relief in 30 min and 10 min respectfully
- **All of the above work by central vasoconstriction**
- Intranasal 4% lidocaine may also be effective.

Primary headache

	Tension	Migraine	Cluster
Location	Bilateral	Uni/ Bilat	Unilateral , around the eye
Pain quality	Pressing / tightening	Pulsating	Variable
Pain intensity	Mild to moderate	Moderate to sever	Sever to very sever
Effect on activity	Not aggravated b routine activities	Aggravated by daily activity , lead to avoidance	Restlessness or agitation
Duration of headach	30 min-continuous	4-72 hours	15-180 min

Primary headache

	Tension	Migraine	Cluster
Other symptoms	None	Photophobia Sound sensitivity Nausea Vomiting Aura	Red or watery eye Nasal congestion or runny nose Swollen eyelid Forehead and facial sweating Constricted pupil or dropping eyelid

Secondary headache

- Evaluate people who present with headache and any of the following features, and consider the need for further investigations and/or referral:
  - worsening headache with fever
  - sudden-onset headache reaching maximum intensity within 5 minutes
  - new-onset neurological deficit
  - new-onset cognitive dysfunction
  - change in personality
  - impaired level of consciousness
  - recent (typically within the past 3 months) head trauma

Secondary headache

- headache triggered by cough, valsalva (trying to breathe out with nose and mouthblocked) or sneeze
- headache triggered by exercise
- orthostatic headache (headache that changes with posture)
- symptoms suggestive of giant cell arteritis
- symptoms and signs of acute narrow-angle glaucoma
- a substantial change in the characteristics of their headache.

Secondary headache

- Consider further investigations and/or referral for people who present with new-onset headache and any of the following:
  - compromised immunity, caused, for example, by HIV or immunosuppressive drugs
  - age under 20 years and a history of malignancy
  - a history of malignancy known to metastasize to the brain
  - vomiting without other obvious cause.

Secondary headache

Medication overuse headache

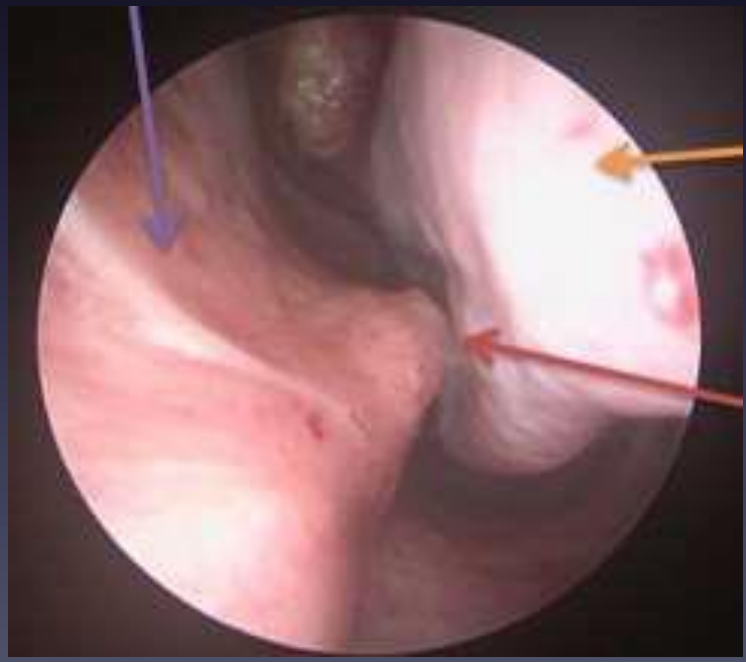
- headache developed or worsened while they were taking the following drugs for 3 months or more:
  - triptans, opioids, ergots or combination analgesic medications on 10 days per month or more or
  - paracetamol, aspirin or an NSAID, either alone or in any combination, on 15 days per month or more.

Secondary headache

- Sinusitis
- Anemia
- Hypertension
- Glaucoma
- Temporal arteritis
- Sleeping disorders
- increase intracranial pressure
- Brain Tumors

Rhinogenic headache

- **Headache or facial pain secondary to mucosal contact points in the nasal cavity in the absence of inflammatory sinonasal disease, purulent discharge, nasal polyps, nasal mass, or hyperplastic mucosa**:
- septal deviation contacting nasal wall
- septum to middle turbinate
- septum to inferior turbinate
- concha bullosa
- superior turbinate pneumatization
- ◦any other visualized mucosal contact point

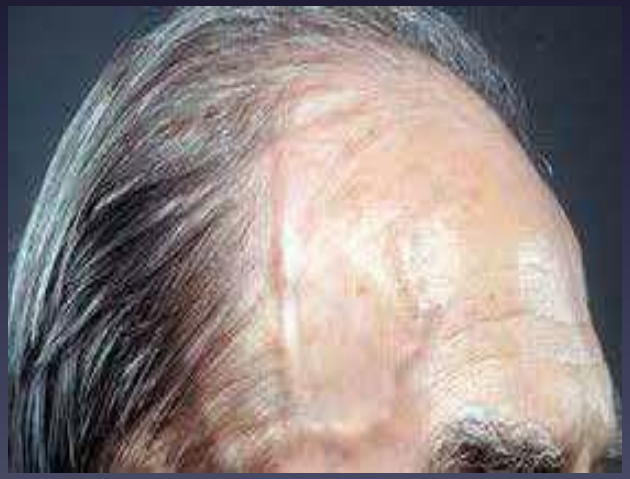


Rhinogenic headache

- Most common diagnostic method used to identify possible surgical candidates has been application of topical anesthetics and decongestants to intranasal contact areas during a headache.
- Improvement of headache after decongestion test may predict the surgical success (FESS) inpatients with rhinogenic headaches.

Giant Cell Arteritis

- **Presents as new-onset, constant localized temporal headache:**
- ◦ Pain is moderate to severe, burning, throbbing
- ◦ Pain can be unilateral or bilateral
- ◦ Associated symptoms jaw claudication, weight loss, generalized fatigue, low grade fevers ,malaise and extremity pain.
- ◦ **Visual symptoms:**
- Involvement of ophthalmic artery causes anterior
- ischemic optic neuropathy
- Blurring, scotomata, and sudden blindness.
- Blindness ~20% of patients



Giant Cell Arteritis

- Most commonly in patients >50 y/o, (average age is 79)
- ◦ women:men 2:1
- ◦ Highest incidence in Scandinavians or Americans of Scandinavian descent
- ◦ Associated with Polymyalgia rheumatica
- Physical Findings
- ◦ Palpable thickened and tender scalp arteries with diminished or absent pulse.
- ◦ Fundoscopic examination
- Ischemic optic neuritis –slight pallor and edema optic disc, with scattered cotton-wool patches

Giant cell arteritis

Diagnosis

- ◦ ESR>50mm/hr
- ◦ Superficial Temporal Artery biopsy
- Segment should be at least 5 cm long
- Granulomatous inflammation with multinucleated giant
- cells

Treatment

- ◦ Prednisone 40-60 mg/day (initial) Then,10-20mg/day x several

months while checking ESR

Thank you