APPROACH TO PRIMARY HEADACHE DISORDERS

MIGRAINE

Classification: POUND pneumonic - 4/5 features has LR = 24 for migraine

- **P**ulsatile
- 4-72 h**O**urs
- **U**nilateral pain
- **N**ausea
- **D**isabling intensity

- *photophobia and phonophobia are also often present
- visual auras ass'd with migraine = bilateral, coloured, and tunnel-vision Sxs, other auras include: disequilibrium/vertigo (common cause of vertigo in younger pop'n)

Triggers: Emotional stress, Hormones therapy, Not eating, Weather, Sleep disturbances, Odors, Neck pain, Lights, Alcohol, Smoke, Heat, Food, Exercise, Sexual activity

Rx: Tylenol/**NSAIDS 1st line**

- **2nd line: Triptans** - oral, SL, SC, intranasal preparations available, tend to work best if taken early to abort migraine, theoretically faster-acting preparations best
  - avoid in HTN/CVD
- **Status Migranous/ER presentation:**
  - 1L bolus NS
  - Maxeran 10mg or Stemetil 5-10mg in minibag over 15 mins +/- benadryl or benztropine to prevent akathesia
  - consider single dose Dexamethasone 10-15mg to prevent rebound headache

TENSION-TYPE HEADACHE (TTH)

Most common headache, but most common seen in office = migraine since most TTH is mild and doesn't present to clinic

Classification:

- infrequent episodic <1d/month
- frequent episodic 1-14d
- chronic TTH 15+ days/month

Rx: Tylenol/**NSAIDS 1st line**

- combos with caffeine more effective but SE's, risk of Medication overuse headache (see below)
- if pt responds to triptans, likely migraine component
- muscle relaxants have NO evidence and are NOT recommended

Table 1. International Classification of Headache Disorders II: Criteria for Diagnosis of Tension-type Headache and Migraine[1]

Criteria	Tension-type Headache	Migraine
Number of Episodes	At least 10 episodes	At least 5 previous attacks
Duration	40 minutes to 7 days	4 to 72 hours (may be shorter in children)
Pain Characteristics	At least **two** of the following: Pressing or tightening, non-pulsating quality Mild-to-moderate intensity, but does not preclude activity Bilateral Not aggravated by routine physical activity	At least **two** of the following pain characteristics: Pulsating Moderate-to-severe intensity Unilateral (may be bilateral in children) Aggravated by routine physical activity, or causing avoidance of routine physical activity
Associated Features	**Both** of the following: No nausea or vomiting No photophobia **or** phonophobia **or** only one of photophobia or phonophobia	At least **one** of the following: Nausea and/or vomiting (often more prominent in children) Photophobia *and* phonophobia
Underlying Conditions	Not caused by another disorder.	Not caused by another disorder

(copied from McMaster module on headaches)

* migraine and TTH can co-exist! similar triggers for both
* Other Rx/prevetion for both TTH and Migraine:
  - **non-pharmachologic options:**
    - heat/ice, massage, rest, biofeedback, meditation, exercise (relieve stress)

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- **prevention:**
  - good evidence for TCAs (amitryptilline most studied, nortriptylline less SE's)
  - start at 10mg qhs, titrate up (q1-2 wks) to therapeutic effect (max 100mg/day) or SE's

CLUSTER HEADACHE:

- **Criteria:**
  - At least 5 attacks with severe unilat Sxs orbital or temporal,15-180 min untreated, freq q2d - 8/d
  - Accompanied by 1 of the following autonomic Sxs (conjunctival injection/lacrimation, rhinorrhea, eyelid edema, facial sweating, miosis or ptosis, sense of agitation)
- **Classification:**
  - **episodic** - 2+ cluster periods for 7d-1y with pain-free intervals > 1/12
  - **chronic -** last > 1y without remission (or remission < 1 month)
  - **probably cluster headache -** fulfills all but 1 of above criteria
- **Acute Rx** = oxygen (non rebreather, 12L/min+, 15min duration) + sumatriptan SC or intranasal
- 2nd line agents - octreotide, lidocaine intranasal, ergots
- **Prevention:** Verapamil start 240mg/day BID or TID depending on prep, titrate up by 80mg/d q 10-14d until desired prophylaxis
  - use with onset of clusters or continuously (depends on freq of episodes), attempt to wean slowly
  - 2nd line prevention = high dose prednisone 5 days min +/- taper
  - Topiramate may be useful adjunct with verapamil
- limitations = COPD (O2), triptans cause non-ischemic chest pain and distal paresthesias, use caution in CAD

MEDICATION OVERUSE HEADACHE:

- co-exists with chronic daily headache
- Hx of prn use of analgesics for headache **>2-3d/week for > 3 months**
- all meds used to treat acute headaches have potential to cause this but some higher risk (in order):
  - highest with opioids, butalbital-containing combos, aspirin/acetaminophen/caffeine combos
  - intermed-high with triptans, tylenol
  - lowest with NSAIDS
- often presents on awakening, only temporary relief with analgesics
- **Rx is discontinuation** - withdrawal Sxs 2-10 days (avg 3.5), include withdrawal headache, N&V, hypotension, tachycardia, insomnia, anxiety
  - NB: taper opioids/barbituates over 1 month, others can be abruptly stopped
  - need to do this to accurately Dx headache condition and treat appropriately
  - **Withdrawal prevention:** may consider TCA or prednisone during acute med withdrawal

"Sinus Headache" - overdx, most likely Sxs of congestion, sinus pressure, etc DUE TO migraine!

SERIOUS CAUSES OF HEADACHE:

- **Lesions on CT Scan (pus, blood, tumor):**
  - **Blood -** SAH, subdural, stroke, cerebral venous thrombosis
  - **Pus -** Meningitis, encephalitis
  - **Tumor -** primary vs metastatic, benign vs. malignant
- **Non-Intracranial pathology:**
  - Cervical A dissection (carotid or vertebral)
  - Hypertensive encephalopathy
  - Pre-eclampsia/eclampsia
  - Idiopathic intracranial hypertension
  - Glaucoma
  - Temporal Arteritis
  - Meds/toxins (ie CO poisoning)
- **RED FLAGS:** New headache at age >50, sudden onset/maximal at onset, trauma, fever, vision loss, severe neck pain, morning emesis, significant worsening freq/intensity, constitutional Sxs, focal neuro findings, etc