Headache Management

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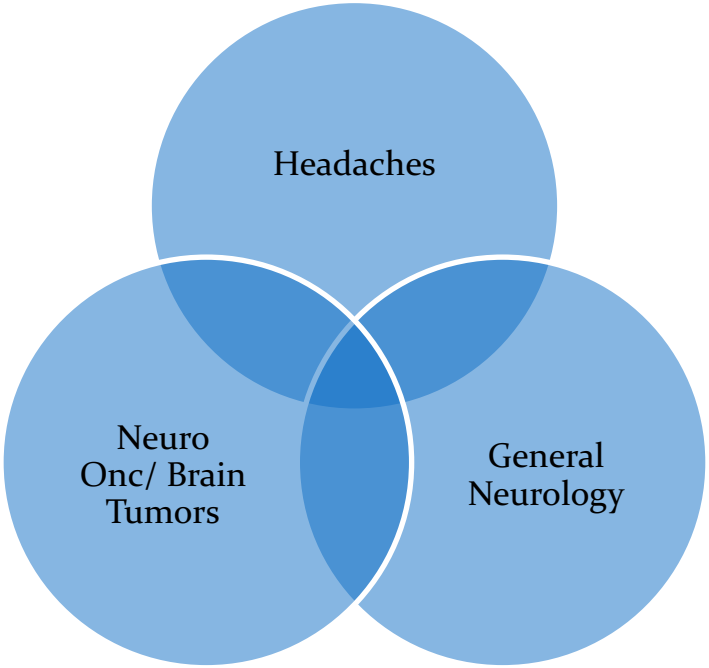
What I do at the UR



What we are going to talk about today

- Headaches – are they normal?
  - What exactly is a migraine?
- Diagnosing the headache type
- Medical management
- What's New in Migraine – YES there is NEW stuff!

Is it normal to have a headache?

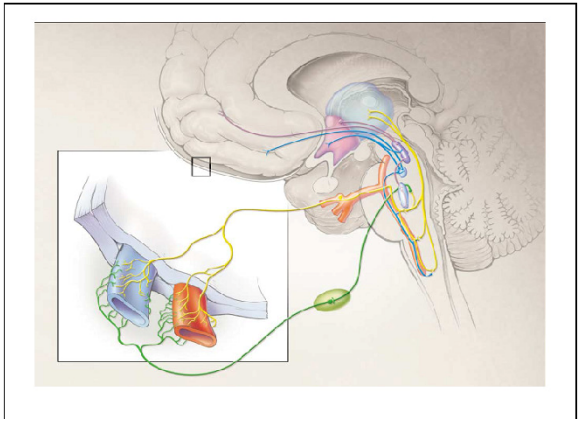
- No, but people think so because it is so overwhelming common
- Most people with HA don’t go to the doctor
- Affects 37 million people (estimated)
- Most headaches are migraines, but patients will call them many things like “stress headache”, “sinus headache”, “regular headache”, “normal headaches” and “neck headaches”

Migraine is a disorder of brain excitability and sensory dysmodulation causing head pain and associated features.

Migraine involves activation of the trigeminovascular system, neural input from trigeminal and cervical neurons, projections to vessels, dura mater and venous sinuses, and convergence→ trigeminal nucleus caudalis . This can explain the distribution of pain, which often includes **anterior and posterior regions of the head and the upper neck**.

Stimulation of the trigeminal ganglion results in release of vasoactive neuropeptides, including calcitonin gene-related peptide (CGRP)

Sensitization refers to the process in which neurons become increasingly responsive to nociceptive and non-nociceptive stimulation



Is it a migraine?

- Pain in any part of the head and neck can be a migraine, Uni or B/L
- Quality varies: Pressure, stab, throb, hammer, etc.
- Nausea, vomiting
- Photo-, phono-, osmo-phobia.
- Visual, sensory, language auras ever.
- Missing work/ life events due to headache

- If your patient has ever come in wearing sunglasses they have migraines.

Is it a migraine?

- ID Migraine:
- 3 simple questions : Have you in the past 3 months
  - Felt nauseated with a headache?
  - Had photophobia with a headache?
  - Been limited in your ability to function because of a headache?

  - *+ response for 2/3 has a PPV of 0.93, sensitivity 81% and specificity 75% for migraine*

When is it NOT a migraine?

- **Side locked stabbing pain behind eye, in cheek, up back of head *without migraine associated features***
  - Think about TAC, TN, ON
- **Temple pain vision change, jaw claudication**
  - In the older patient, think about TA
- **Focal neurological deficits on exam and new HA**
  - Think about structural lesion/tumor
  - ***AAN quality measure – No MRI indicated unless red flag symptoms/ findings on exam.***
- **<5 % of headache patients will have a structural lesion**

You've determined they have migraines, what next?

Best Practice Guidance for Reduction of Outpatient Migraine in Adults

Identify Migraine

Use of the ID Migraine™ Screener is recommended *(based on Lipton et al. Neurology 2003)*

1. Over the last 3 months, have you limited your activity on at least 1 day because of your headaches?
2. Do lights bother you when you have a headache?
3. Do you get sick to your stomach or nauseated with your headache?
   - ➢ **"Yes" to at least 2** of the above questions **indicates probable migraines**

Identify and Resolve Medication Overuse Headache

- **Medication Overuse Headache (MOH) Definition:** secondary disorder in which excessive use of acute medications causes chronic daily headache in a headache prone patient.
- **MOH Clinical Diagnosis:** More than 15 headache days per month and history of acute medication use more than 2-3 days per week; Diagnosis supported when headache frequency increases with increased medication use or improved by when medication is withdrawn
- **Identify and treat MOH prior to initiating other migraine therapies:** MOH can render headaches refractory to other treatments and reduce the efficacy of abortive therapy
- **Most effective treatment for MOH:** discontinuation of overused medication, combination pharmacological/nonpharmacological therapies aimed at suspected primary headache disorder

Implement/Optimize Nonpharmacological Interventions

Intervention	Goal(s)
Reduce caffeine intake	*< 8 oz.* of caffeinated beverages before noon
Maintain a regular sleep schedule	At least 7 hours of sleep per night Avoid screen time for at least 1 hour before bed
Improve diet and avoid triggers	Monitor and avoid foods patient identifies as triggers Avoid fasting for more than 6 hours while awake Clean eating *(avoid processed foods, high carbohydrate- or sugar-containing foods, and maximize intake of fresh fruits and vegetables)*
Improve hydration	*48 oz.* of non-caffeinated beverages daily
Regular exercise	At least *20 min.* of elevated heart rate per day, *4 days per week*

- Identify and address any obvious Medication Overuse Headache (MOH)
- MOH:
  - secondary disorder in which excessive use of acute meds causes chronic daily headache in a headache prone patient.
- MOH Dx:
  - More than 15 HA/month and history of acute med use > 2-3 days per week.
- How to address:
  - Discontinue overused medication. If Butalbital or Narcotic, may require weaning.
  - Prescribe a treatment aimed at the suspected primary headache disorder and discontinue the overused medication.

If your patient has <6 migraines per month start abortive therapy

First-Line Abortive Options

- Sumatriptan 100 mg (tablets only), *or*
- Zolmitriptan 5 mg (tablets only), *or*
- Rizatriptan 10 mg tablets (limit to 5 mg if co-prescribed propranolol), *or*
- Ibuprofen 600 - 800 mg
  - *NOTE: Triptans are equally safe and effective and are safe to use with aura. Selection is based on cost, onset, and duration of action.* ***If a patient does not tolerate a triptan well (chest pain, dizziness, flushing, etc,) almotriptan can be better tolerated than other triptans but is more expensive***

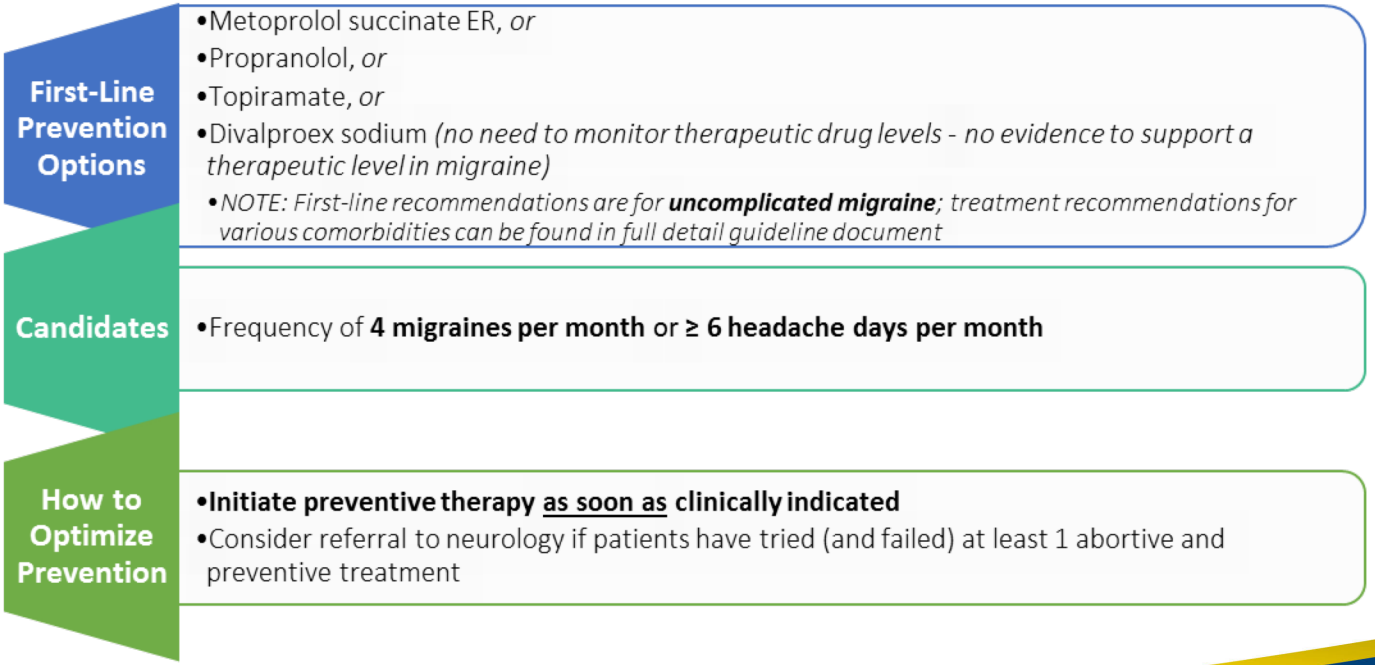
AVOID

- **Caffeine-containing medications: limit use.** Using these medications more than 2 days per week greatly increases the risk of medication overuse headache.
- **Opioids: avoid.** Opioids contribute to medication overuse headache, tolerance/dependency, and decrease responsiveness to acute and preventative meds
- **Butalbital: avoid completetly.** Butalbital is less effective and very likely to contribute to medication overuse headache.

How to Optimize Treatment

- Initiate abortive agent as early as possible in acute attack
- Restrict abortive medications to no more than 2-3 days per week
- **Co-prescribe antiemetics *if concurrent nausea or vomiting*** (metoclopramide 5-10 mg tablets or prochlorperazine 10 mg tablets or 25 mg suppositories)
- Set patient-centered expectations and monitor ability to resume daily activities
- Treat 2-3 attacks before judging effectiveness of an agent

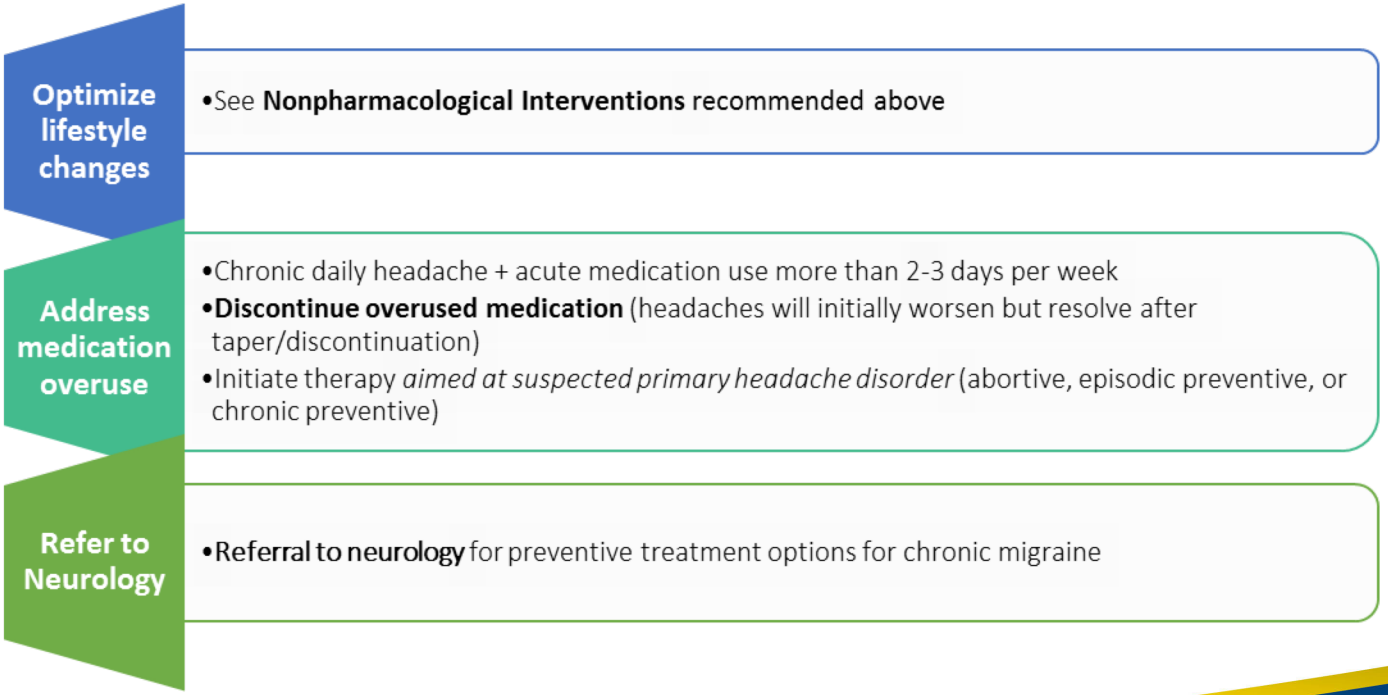
If your patient has >6 migraines per month start preventative therapy



Preventative Therapy: My go-to's

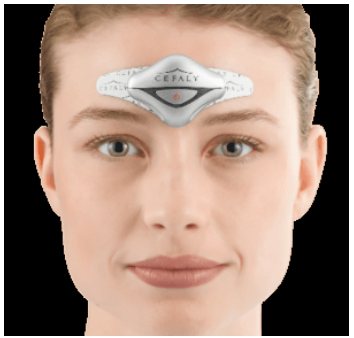
- Amitriptyline 10-25 mg nightly
- Propranolol LA 60 mg daily
- Topiramate 25 mg nightly titrate to 100 mg.

If your patient has >15 headache days per month they have chronic migraine and you should start preventative therapy



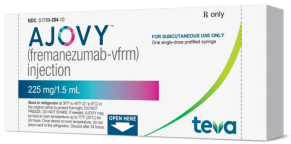
Other Therapies for Chronic migraine

- Variety of second line oral meds
- Botox
- Devices – cephaly, gamma core



New Treatments for Migraine

- Monoclonal Antibodies approved for the treatment of chronic migraines
  - Erenumab (Aimovig) – blocks CGRP receptor
  - Fremanezmab (Ajovy) –blocks CGRP ligand
  - Galcanezumab (Emgality) –blocks CGRP ligand



More new treatments coming

- Gepants -- rimegepant and ubrogepant -- are oral CGRP receptor antagonists for acute migraine treatment.
- Ditans -- lasmiditan, a serotonin 5-HT_{1F} receptor agonist for acute migraine treatment.
- Both have completed phase III trials and show efficacy – no vasoconstriction and so will not be contraindicated in patients with vascular disease (!!!)

Summary

- Most headaches are migraines
- Try simple interventions and one or two first line therapies
- Refer to neurology when failure of first line, other HA d/o, or for more complex treatments.

References

- American Headache Society Best Practice Guidelines for Reduction of Outpatient Migraine in Adults
- “Headache” Continuum American Academy of Neurology Volume 18, Number 4, August 2012
- Practice Guidelines American Academy of Neurology – Treatment of Migraine and MOH