EM:RAP Continuous Core Content

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EM:RAP C3 January 2016 Written Summary

Headache

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Take Home Points

- **The work up of headache is geared toward identifying primary vs secondary causes of the headache.**
- **Consider Giant Cell Arteritis in older patients with headache**
- **Consider cervical dissection in younger patients with headache.**

Your chart needs to reflect that you have thought about and evaluated for the red flags.

The Red Flags:

- **New onset**
- **Neurological findings**
- **Sudden Onset or worst at onset**
- **Fever or immune compromise**
- **Old person**
- **Progressive headache**
- **Jaw claudication, muscle aches, temporal artery pain**
- **Multiple patients with headache (CO toxicity)**
- **Think Drug Withdrawal**
- **Pregnancy or post pregnancy**
- **Clotting disorder**

- **Trauma**
- **Eye pain**
- **Cervical Manipulation with facial pain or headache**
- **Dizziness with headache**

We are talking about the walking and talking patient with a headache. Not a patient with a headache and systolic BP of 250.

TREAT PAIN FIRST. You can get a better, faster history from a patient whose pain has been managed. There are 4-5 categories of drugs. Tailor the treatment to the patient. Ask what they took before they arrived and give them something different.

- **NSAIDS and Acetaminophen.** Give PO, turn the lights off and reassess in a few minutes. The faster the drug gets into the brain, the more effective it tends to be against headaches. Effervescent aspirin, like Alka-Seltzer can be more effective than tablets.
- **Dopamine antagonists.** Prochlorperazine (Compazine), metoclopramide (Reglan), chlorpromazine (Thorazine) are 80-90% effective at resolving headaches when given IV. When given IM they are about 60-80% effective. PO administration significantly decreases effectiveness to the placebo range of 40%.
    - The most important side effect is QT prolongation.
- **Abortive medications.** Sumatriptan (Imitrex) is most effective in the early stage or during the aura of the headache.
- **Opioids.** It is acceptable to give opioids after you have tried other meds without success. However, they are not as effective as the dopamine antagonists and set patients up for dependence.

FOCUSED HISTORY SECOND. Once the headache is under control, do a good history and physical. Response to analgesia is not a diagnostic test; dangerous headaches can respond well to Tylenol.

- The evaluation of headache revolves around the issue of primary vs secondary causes of headache.
- A history of recurrence and a history of therapy in the past is very important. It guides your work up and your therapy.

Primary Headaches

- **Tension headaches are the most common type of headache.** Most frequently seen in men, are bilateral, and usually have a cause that can be identified in the patient's life like sleep schedule, stress, depression, etc.
- Migraine headaches classically feature an aura (a warning sensation that the headache is about to come on), visual sensations like scintillations (colored lights) or holes in the vision (scotomas), photophobia and phonophobia. In the UC, it is not important to determine the difference between a migraine and a different type of chronic, recurrent headache.
    - **Migraine headaches are known to cause neurologic deficits or autonomic features. However, if it looks like a stroke, treat it like a stroke and transfer to the ED.** The only exception is if the patient presents with a very clear history of migraine headaches with a neurologic deficit that is well established, unchanged from previous, and is resolved or getting better
    - A hard neurologic finding is any finding that could be explained by a specific lesion in the brain. A sense of confusion, lightness, or trouble focusing are not hard neurologic findings. Inability to move a part of the body, cranial nerve deficit or ataxia are **hard** neurologic findings. In general, these symptoms are not benign require transfer to an ED
- Cluster headaches are seen in men and they occur several times over the course of days or weeks. The headaches are intense, usually centered behind one eye, and are often so bad the patients cannot keep still. They may have neurologic findings like a myosis or a ptosis, lacrimation or facial sweating.. These may

resolve with treatment (oxygen at high concentration, intranasal lidocaine administered to the ipsilateral nares), but hard neurologic findings need to be treated like a stroke until proven otherwise.

- **Medication overuse syndromes are the 3rd most common cause of headaches.** Patients may have headaches because they are on medication for headaches. These types of headaches are very common with opioid medications, and are also seen with caffeine, barbiturates, and OTC medications.

Secondary Headache

- Any headache that is new in onset is concerning for a secondary cause.
- **Red flags for** secondary headache**:**
    - New onset headache.
    - Hard neurologic findings.
    - Sudden onset.
    - Maximal at onset (over 1-2 minutes).
    - Fever + headache—this is a difficult red flag because it is common and can be benign.
        - Consider a fever with a headache a concerning red flag if patients are immunocompromised (HIV, chronic steroids, alcoholics, homeless, partially treated with antibiotics) because these patients are more are more likely to have a meningitis.
        - Over the past several years, meningitis has changed from being a pediatric disease to an adult disease. Adults at higher risk are prisoners, military recruits and those living in college dormitories.
        - **If an immune-compromised treat for meningitis**
            - **Who does well with steroids?** There is evidence that 10mg of dexamethasone (Decadron) given before antibiotics can improve outcomes. If your suspicion isn't high, or if the

patient is immunocompromised, the evidence is not clear so it is probably best to give the ceftriaxone without the dexamethasone.

- **Who becomes hypotensive?** Bacteremic patients can become hypotensive after administration of antibiotics as the bacteria lyse. The treatment of this hypotension is fluid resuscitation, so make sure every patient has good IV access before giving antibiotics.

Consider Giant Cell Arteritis (formerly called Temporal Arteritis) in every elderly patient with a headache.

- Symptoms include painful, enlarged temples and jaw claudication.
- Start steroids empirically with 60-80mg prednisone PO because early administration is critical to saving the patient's vision and does not change the results of the biopsy.
- If you are concerned about GCA in a patient who does not have the classic features, send an ESR. If the ESR is low, it is unlikely to be GCA. If the ESR is high without another explanation, start steroids and refer them to Ophthalmology for biopsy. If your lab takes a long time to process the ESR, send it anyway but add a CRP.

Consider cervical dissection as it is a significant cause of stroke in young people (30s). Like SAH, cervical dissections present with a sudden onset of headache and patients often report significant facial pain in addition to the headache. The majority are caused by low mechanism trauma like yoga or dancing with the sudden onset of lancinating pain radiating up either the back or the front of the neck. These patients need to go to the ED for either CT or MR angiogram. Treatment is usually heparin.