JANUARY
2021

When does a Patient with Headache Need a Workup?

Discerning Between Primary & Secondary Headache

D. Michael Ready, MD, FAHS

When a patient with headache presents to medical care for treatment, a healthcare provider must first determine: Is the headache primary or secondary?

A primary headache isn't a symptom of an underlying disease but the condition itself. Primary headaches include migraine, tension-type, cluster headache and others. These different types of headache are the result of the brain someone is born with, or acquired in the instance of trauma, and the environment they are in.

In contrast, a secondary headache means that the headache is a symptom of another underlying disorder. Secondary headache requires further evaluation to diagnose the cause of the headache before more specific treatment can be recommended.

Pattern recognition will identify characteristics associated with secondary headaches that necessitate a workup. Headache may ultimately be identified as a primary disorder after a secondary headache has been ruled out. If the patient has had a history of episodic headache interspersed with periods of freedom from attacks that has occurred for many months or years, it is considered a "comfort sign" and strongly suggests a primary headache disorder. However, if a patient describes a new onset headache that is continuous (24/7), a secondary headache disorder should be considered.

First Contact
HEADACHE
In Primary Care
BY THE AMERICAN HEADACHE SOCIETY

AMERICAN HEADACHE SOCIETY

The **"SNOOP"** mnemonic (now SNOOP4) helps to identify the red flags that indicate a headache requires further investigation.

Identifying Red Flags	
Red Flag	**Possible Conditions**
Systemic symptoms and signs	Meningitis, vasculitis, cancer, infection
Neurologic symptoms or signs	Neoplasm, stroke
Onset sudden	Cerebrovascular causes, spontaneous CSF leak
Older age at onset (>50 years)	Giant cell arteritis, neoplasm
Pattern change/progression	Neoplasm
Precipitated by Valsalva maneuver	Posterior fossa lesion
Positional aggravation	High or low pressure headache
Papilledema	High pressure headache

Clinicians may reflexively order imaging for headache patients. This is understandable as it may be challenging to have a patient who may be in severe pain and not have something "causing" it. But in practice, **imaging studies should not be ordered for patients with a stable headache pattern (that meets migraine criteria).** Primary headache imaging rarely changes clinical management so imaging decisions should depend on which secondary headache is suspected.

Imaging Recommendations		
Clinical Features/Red Flags	**Suspected Condition**	**Recommended Imaging***
Trauma	Bleed	CT head without contrast
New feature or neurological deficit	Neoplasm, vascular malformation	MRI brain
Thunderclap/orgasmic (sudden onset; severe)	Bleed (SAH)	CT head without contrast; MRI brain without gadolinium, MRA head and neck, MR venogram head (if CT negative)
Sudden unilateral and/or pain radiating to the neck	Vascular (e.g., arterial dissection)	CTA head and neck or MRA head and neck
Pain due to trigeminal autonomic cephalgia	Neoplasm	MRI brain with/without gadolinium
Persistent or positional pain	IIH/CSF leak	MRI brain with/without gadolinium
Immunocompromised state	Infection; malignancy	MRI brain with/without gadolinium
New onset in patient > 50 years old	Giant cell arteritis, neoplasm	MRI brain with/without gadolinium

*Recommended imaging may need to be complemented by additional diagnostic tests, such as lumbar puncture and bloodwork. Blood work for new onset headaches may include: sed rate (ESR), CRP (patients over 50), CBC, TSH and vitamin D.

For more information on migraine and other headache disorders, visit **AHS' resources hub**. If you are interested in women's health and migraine management, be sure to sign up for our brand new presentation on **A Woman's Migraine Journey**.

AMERICAN HEADACHE SOCIETY