Red Flags in Headache field

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اولین دوره
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سردرد و دردهای صورت

The first nurse specialist course on headache and facial pain

Tehran University of Medical Sciences

IHA IRANIAN HEADACHE ASSOCIATION انجمن سردرد ایران

1. Introduction

- Headaches:
  - primary and secondary headache disorders

primary headaches such as migraine or cluster headaches are the disease itself, whereas secondary headaches are the expression of an underlying disease

1. Introduction

- The epidemiology of secondary headaches may vary depending on the clinical setting or the population sampled.

- For example, emergency-based studies yielded a prevalence rate of 2% to while the numbers documented in community-based research ranges from 2% to 23%

1. Introduction

- elderly patients having a higher likelihood of secondary headaches compared to their younger counterparts

- The International Classification of Headache Disorders (ICHD)-3 attributes secondary headaches to a causative disorder such as vascular, inflammatory, traumatic, and neoplastic **aetiologias**

1. Introduction

- Early recognition of secondary headaches is critical, as in many cases, early treatment proves lifesaving

- A secondary headache may have the characteristics of a primary headache but still fulfil criteria for causation by another disorder

The ICHD-3 defines secondary headaches as:

- Headache attributed to trauma or injury to the head and/or neck
- Headache attributed to cranial or cervical vascular disorder
- Headache attributed to non-vascular intracranial disorder
- Headache attributed to a substance or its withdrawal
- Headache attributed to infection
- Headache attributed to disorder of homoeostasis
- Headache or facial pain attributed to disorder of the cranium, neck, eyes, ears, nose, sinuses, teeth, mouth or other facial or cervical structure
- Headache attributed to psychiatric disorder

- "red-flags" have been defined to guide the clinician when to consider a secondary headache

- Recently, "green flags" have been suggested to help the clinician to recognize frequently "benign" primary headaches, a concept that needs further study

What are the red flags?

- in order to identify the cause and determine the appropriate treatment

- Providers can use the mnemonic “SNOOP4” to remember the red flags of secondary headache

Systemic Signs

- The “S” refers to systemic symptoms, such as fever, night sweats or other symptoms of a systemic process

- also for systemic illness

- “If somebody is immunocompromised or if they have another secondary medical condition that could predispose them to secondary headaches

Systemic Signs

- Immunocompromised
  - Due to medicine
    - PDN
    - MS Tx (Tysabri) may produce PML
    - Sandimmun (Cyclosporine)
    - Imuran (AZATHIOPRINE)
    - Any chemotherapy, etc
  - Due to other disorders
    - Renal failure
    - Hepatic failure
    - TB, etc

Neurological Symptoms (FND)

- neurological exam
- If experiencing neurological signs, it may point to secondary headache
- These symptoms can include weakness in one arm or leg, numbness that is new or not typical or any visual changes.

Onset is Sudden

- “A very sudden onset headache is probably one of the most concerning features of a secondary headache,”

- This type of headache—such as a thunderclap headache, which comes on suddenly at a maximum **10**-out-of-10 intensity—can point to a vascular issue like an aneurism (**SAH**) and should be evaluated right away.

Onset is Sudden

- A severe sudden onset = SAH and then think other etiologies
  - Brain CT (NECT)
  - If not, do LP (CSF drainage)

- But it may be seen in primary HA like migraine, etc

Older Age at Onset

- a new onset of headache after **50** (45) years old

- Most primary headaches start when people are younger in age

Progression

- Secondary headache is typically marked by a clear progression of becoming more severe or more frequent

- In comparison, primary headache is usually episodic or fluctuating over time

Change of pattern

- Frequency
- Severity
- Duration
- etc.

Papilledema

- that is, swelling of the optic nerve—on a fundoscopic
- indication of **RICP** in and around the brain.

RICP

- Other pints suggestive of RICP:
  - Papilledema
  - Morning HA
  - Non-projectile vomiting
  - Change severity with bending or head movement
  - Positional (increase with lying)

Positional or Precipitated by Valsalva

- changes in intensity in different positions, like standing to lying, or is triggered by the Valsalva maneuver, such as coughing or straining, during defecation, entrap breath with push force on the abdomen

- These signs could point to a pressure issue or a problem related to some type of mass (**SOL**)

Pregnancy

- new-onset headache during or after pregnancy,

  such as pituitary or vascular abnormalities

- AVM, Meningioma

Pregnancy

- Usually migraine headache decreases during pregnancy, specially in 2nd & 3rd trimester

Etc: endocrinopathy

- Galactorrhea, mens' abnormality
  - High prolactin secretion due to pituitary adenoma

Etc: any cancer Hx, now or before

- It may reveal metastasis or re-activation of treated canser

Etc: fever

- Benign (Sinusitis)
- Bad (meningitis)

Etc: seizure

- Brain mass lesion (SOL):
  - Br tumors
  - Br abscess, etc.
- Vascular lesions:
  - ICH
  - SAH AVM, etc
- Infections:
  - Meningitis, encephalitis, etc.

When should **testing** be done?

- Beyond a neurological exam

- Beginning with the “S” in SNOOP4, lab work can be done to investigate potential systemic illnesses, including hypothyroidism, anemia, autoimmune conditions and infections

When should **testing** be done?

- An erythrocyte sedimentation rate (**ESR**) and c-reactive protein (**CRP**) lab work can identify certain types of secondary headache like temporal arteritis or giant cell arteritis

- TA: typically presents as a one-sided headache,
  less commonly (occipital or frontal headache)

When should imaging or testing be done?

- "If you are seeing somebody who has a new, very severe acute onset headache, that would be the time to consider either a **CT** scan or even emergency room evaluation,"

- A CT scan can show issues such as bleeding or a tumor

When should imaging or testing be done?

- "Although a CT scan can be helpful, if it's negative, that patient should still likely have additional workup,"

- "including a lumbar puncture or even looking at the blood vessels and a CT scan to rule out any type of dissection or a cerebral venous thrombosis."

When should imaging or testing be done?

- An MRI is the most specific type of imaging for identifying secondary headache
- It can show infectious processes, smaller tumors, issues related to pressure changes or pituitary problems.
- If imaging and testing do not show a clear cause or presents challenges, a referral to a neurologist is a recommended next step

When should imaging or testing be done?

- Non-enhance CT: in EMW, for hemorrhage, headtrauma)
- MRI with GAD: evaluate BBB & diff between benign and other tumors, abscess, etc.
- Brian MRA: for AVM, Aneurism, etc.
- Br MRV: for CVST
- Br MRS for SOL, differentiation between tumors, abscess, etc.
- Cervical MRA (with Gad) for dissection
- C. CDS (color duplex) for dissection

Best wishes for out important members of

HEADACHE TEAM,

DEAR NURCESS

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