Differential Diagnosis of Chronic Migraine

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Learning Objectives
At the conclusion of this presentation, participants should be able to:

- Identify key steps to exclude secondary chronic headaches
- Define key primary headache syndromes based on features, headache frequency and attack duration
- Recognize other types of primary long-duration headache

Clinically the first step is to exclude Secondary Headache
SNOOP mnemonic – Dodick
Systemic symptoms (fever, weight loss) or Secondary risk factors (HIV, cancer)
Neurologic symptoms or signs
Onset: abrupt, peak <1 min
Older: >50 (GCA; glaucoma, cardiac cephalalgia)
Previous headache history (new or change)
Postural, positional
Precipitated by Valsalva, exertion
Papilledema (pulsatile tinnitus, diplopia, transient visual obscurations)
Progressive (intractable)

ICHD-IIIβ Diagnostic Criteria for CM
A. Headache (tension-type-like and/or migraine-like) on 15 days per month for >3 months
B. Occurring in a patient who has had at least five attacks fulfilling criteria B-D for 1.1 Migraine without aura and/or criteria B and C for 1.2 Migraine with aura
C. On 8 days per month for >3 months, fulfilling any of:
    1. criteria C and D for 1.1 Migraine without aura
    2. criteria B and C for 1.2 Migraine with aura
    3. believed by the patient to be migraine at onset and relieved by a triptan or ergot derivative
D. Not better accounted for by another ICHD-III diagnosis

Schwedt et al Headache 2015;55:762-777
Methods - 66 migraineurs and 54 healthy had MRI. Headache frequency thresholds were evaluated to determine the threshold allowing for the most accurate subclassification of individuals into lower and higher frequency subgroups via measurements in temporal pole, anterior cingulate cortex, superior temporal lobe, entorhinal cortex, medial orbital frontal gyrus, and pars triangularis.
Results - CM can be differentiated from EM with 84% accuracy

Challenges in Diagnosing CM
Accurate count of headache days over a 3-month period may not be available

Accurate assessment of reversible symptoms or migraine associated symptoms can be challenging
Medication overuse is often prevalent (50% of patients) but not always recognized - Patients minimize analgesic use
A number of primary and secondary headache types may mimic CM

Differentiating CTTH from Chronic migraine is difficult -- Actually possible to be diagnosed with both – e.g. a patient with 28 HAs per month, 8 of which are migrainous, 2 of which are not but may respond to migraine treatment

2.3 Chronic TTH

A. Headache occurring on ≥15 d/mo on average for >3 mo (≥180 d/y), fulfilling criteria B-D
B. Lasting hours to days, or unremitting
C. ≥2 of the following 4 characteristics:
    1. bilateral location
    2. pressing/tightening (non-pulsating) quality
    3. mild or moderate intensity
    4. not aggravated by routine physical activity
D. Both of the following:
    1. not >1 of photophobia, phonophobia, mild nausea
    2. neither moderate or severe nausea nor vomiting
E. Not better accounted for by another ICHD-3 diagnosis

Acute Medication Overuse
Acute medication overuse is arbitrarily defined by days of medication taken
MOH is headache attributed to the overuse of medications
There can be medication overuse without MOH

ICHD-III β MOH
A. Headache* ≥15 days/month in a patient with pre-existing headache disorder
B. Regular overuse for >3 months of ≥1 acute/symptomatic treatment
Ergotamine, triptans, opioids, or combination analgesic medications on ≥10 days/month
Simple analgesics or any combination of ergotamine, triptans, analgesics, or opioids on ≥15 days/month

Differentiating CM and CTTH from MOH is difficult
Possible (and recommended) to be diagnosed with both –
When acute meds are stopped or limited, if HAs dramatically improve → MOH
If headaches do not improve → CM or CTTH
But what if the medication overuse caused lasting changes? Still "MOH"?

Hemicrania Continua

A. Unilateral headache fulfilling criteria B-D
B. Present for >3 months, with exacerbations of moderate or greater intensity
C. Either or both of the following:
    1. at least one of the following symptoms or signs, ipsilateral to the headache:

a) conjunctival injection and/or lacrimation
b) nasal congestion and/or rhinorrhoea
c) eyelid oedema
d) forehead and facial sweating
e) forehead and facial flushing
f) sensation of fullness in the ear
g) miosis and/or ptosis

2.a sense of restlessness or agitation, or aggravation of the pain by movement

D. Responds absolutely to therapeutic doses of indomethacin
E. Not better accounted for by another ICHD-III diagnosis.

New Daily Persistent Headache

A. Persistent headache fulfilling criteria B and C
B. Distinct and clearly-remembered onset, with pain becoming continuous and unremitting within 24 hr
C. Present for >3 months
D. Not better accounted for by another ICHD-III diagnosis.

Chronic post-traumatic headaches, headaches due to abnormal intracranial pressure, headaches due to disorders of homeostasis, chronic infections and disorders of the cranium or neck may also cause headaches resembling chronic migraine.

Summary

- Distinguishing primary from secondary headache disorders is the first priority
- Majority have primary headache
- Diagnostic possibilities for frequent primary headaches includes chronic tension type headaches, new daily persistent headache, and hemicrania
- Majority have migraine

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