Chronic Daily Headaches

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DISCLOSURES:

• None
OBJECTIVES

• AT THE CONCLUSION OF THIS ACTIVITY, PARTICIPANTS WILL BE ABLE TO:
  • define Chronic Daily Headache
  • understand the disease burden
  • construct a clinical rationale for approaching patients with CDH
  • identify different types of Chronic Daily Headaches
  • be able to manage Chronic Daily Headaches at primary care level
What is Chronic Daily Headache?
Chronic Daily Headache (CDH)

- Refers to a broad group of headache (HA) disorders that occur more frequently than 15 days a month for > 3 months
- 3-4 % of general population suffers from it (Guitera et al 1997; Sanin et al 1994).
- CDH accounts for 30-40 % of the patients in specialized headache clinics (Silberstein et al 1994; Mathew et al 1987).
Classification

- Primary: no identifiable underlying cause
- Secondary: identifiable underlying cause
Chronic Daily Headache (CDH)

**Primary:**

- Headache episode duration > 4 hours
  1. Chronic (Transformed) migraine (TM)
  2. Chronic tension-type headache (CTTH)
  3. New daily persistent headache (NDPH)
  4. Hemicrania continua (HC)

*(From Silberstein et al 1994)*
Chronic Daily Headache (CDH)

Classification (contd.)

**Primary:**

- Headache episode duration $< 4$ hours
  1. Cluster headache
  2. Chronic paroxysmal hemicrania
  3. Hypnic headache
  4. Idiopathic stabbing headache
  5. SUNCT/SUNA
Chronic Daily Headache (CDH)

**Classification (contd.)**

**Secondary:**
- Medication overuse headache (Rebound Headache)
- Post-traumatic headache
- Cervical spine disorders
- Headache associated with vascular disorders (AVM, vasculitis, subdural hematoma etc.)
- Headache associated with nonvascular intracranial disorders (infection, intracranial hypertension, neoplasm etc.)
- Other (TMJ disorder, sinus infection)
What should you do as a physician?
Goal #1: make sure that you do not miss a secondary headache

Goal #2: identify the specific type of primary headache, without which effective treatment is not possible
How to achieve this?

- History
- History
- History
- Examination
- Investigations:
  - MRI brain/C-spine, ESR etc
RED FLAGS

- Changing pattern of headache in a patient with pre-existing headache disorder
- Sudden onset headache that reaches its peak within minutes
- Headache starting for the first time after age 50 years
- Escalating headaches
- Headache associated with focal neurological signs and symptoms
- Headache associated with systemic features such as fever
Primary CDH, > 4 hours duration
Chronic (Transformed) Migraine?
Chronic Daily Headache (CDH)

**Chronic (Transformed) Migraine (CM)**

- In 1982, Mathew et al reported a series of patients who had a history of episodic Migraine and in whom the headache evolved over years into a pattern of daily or near-daily headache (*Headache* 1982).

- The term **Transformed Migraine** was first introduced by Mathew et al to describe a common, daily or near-daily HA condition that constituted 77% of CDH seen at Houston HA Clinic (*Headache* 1987).
Chronic Migraine

Clinical Features of CM:
- Pts. have a h/o episodic migraine, typically starting in their teens or 20s.
- Most are women, 90% of whom have h/o migraine without aura.
- HAs grow more frequent over months to years while symptoms of photophobia, phonophobia & N/V become less prominent.
Chronic Migraine

- Pts. then develop a pattern of daily or near-daily HAs that resemble CTTH i.e. mild to moderate pain without photo/phonophobia or N/V.
- Other migraine features may persist such as unilaterality, exacerbation near menstruation.
- Attacks of full-blown Migraine occur over the background of these less severe HAs.
Chronic Migraine

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Treatment

*Acute Treatment*
- Triptans
- Dihydroergotamine
- Ketorolac
- NSAID’s

*Preventive Treatment*
- Botox
- CGRP antagonists
- TCA’s
- AED’s
- Beta blockers
- Muscle Relaxants
Chronic Tension Type Headache?
Chronic Tension-type Headache (CTTH)

- Develops in pts with a h/o Episodic Tension-type Headaches.
- HA is usually diffuse and bilateral
- HA is mild to moderate in intensity
- HA is not worsened by activities of daily living
- It frequently involves the posterior aspect of head and neck
- Prior h/o migraine and migrainous features are absent
New Daily Persistent Headache?
Chronic Daily Headache (CDH)

New Daily Persistent Headache (NDPH)

“\textit{It is the abrupt development of a headache that does not remit}” (Vanast 1986)

- Evolves over less than 3 days
- Pts do not have a h/o Migraine or ETTH
- No h/o trauma or Psychiatric problems
- Pts may distinctly remember the time and day of onset of HA
- Usually self-limiting but long term prognosis is not well studied
Hemicrania Continua?
Hemicrania Continua

- Characterized by continuous, moderately severe, unilateral HA that varies in intensity without disappearing completely.
- Pain exacerbations are often associated with ipsilateral autonomic disturbances such as ptosis, miosis, tearing and sweating.
- It rarely alternates sides.
- Characteristically responds to Indomethacin
PRIMARY CDH, < 4 hour duration
CLUSTER HEADACHE
Cluster Headache

- Bouts of unilateral headache occur from several times a day to once every other day
- These continue for a variable period (cluster period) separated by remission for months to years
- 10% pts. have no remission periods (Chronic Cluster HA)
- Men to women ratio is 5-7:1
- Mean age of onset is 27-31 years
- 0.09-0.4% population affected
Cluster Headache - Clinical features

- Severe unilateral orbital, supraorbital and/or temporal pain lasting 15-180 minutes
- Pain more severe than renal colic or childbirth
- Patient is unable to sit still during the attack and may bang his head against wall etc. in agony
- If untreated, may lead to depression, suicide
Cluster Headache - Clinical features

HA associated with (on pain side):
  ▶ Conjunctival injection
  ▶ Lacrimation
  ▶ Nasal congestion
  ▶ Rhinorrhea
  ▶ Forehead and facial sweating
  ▶ Miosis
  ▶ Ptosis
  ▶ Eyelid edema
Cluster Headache
Cluster Headache-Treatment

**Abortive:**
- 100% oxygen at 7-10 L/min for 15 minutes
- **Sumatriptan** 6 mg s/c
- **DHE 45** 1.0 mg IM or IV
- Nasal **Lidocaine 4-6%**
Cluster Headache - Treatment

**Prophylactic:**
- Verapamil
- Valproate
- Topiramate
- Lithium
- Prednisone
- Ergotamine
- Methysergide
- Radiofrequency thermocoagulation of trigeminal ganglion
Chronic paroxysmal hemicrania
Chronic paroxysmal hemicrania

- Incidence of 1:50,000
- Headache is unilateral, periorbital and temporal
- Each bout lasts 2-30 minutes
- 1-40 attacks per day
- Autonomic features present during attacks
- Periods of remission last < 1 month
- Absolute response to Indomethacin
SUNCT/SUNA syndrome
SUNCT

- Short-lasting **Unilateral Neuralgiform** headache with **Conjunctival injection** and **Tearing**
- Rare disorder
- Pain lasts 15-120 seconds
- 3-100 attacks per day
- Autonomic features with attacks
- Poor response to medications
Idiopathic Stabbing Headache
**Idiopathic Stabbing Headache**

- Severe stabbing pain
- Any part of the head affected
- Female > male
- Duration of pain < 1 second
- Few to many per day
- Autonomic features absent
- Good response to Indomethacin
Hypnic Headache
Hypnic Headache

- Age of onset 65-84 years
- F=M
- Rare
- Headache awakens pt from sleep at the same time almost every night
- Headache duration 15-60 minutes
- Pain diffuse and often throbbing
- No autonomic features
- Bedtime dose of Lithium usually effective
Secondary CDH
Medication overuse Headache
Medication overuse Headache

“A self-sustaining, rhythmic, headache-medication cycle characterized by daily or near-daily headache and irresistible and predictable use of immediate relief medications as the only means of relieving headache attacks”.

(Saper 1986)
Clinical Features:

- HAs are refractory, daily or near-daily.
- HA itself varies in severity, type, and location from time to time.
- Threshold for HA is low and slightest physical or intellectual effort may bring it on.
- HAs are accompanied by asthenia, nausea, restlessness, anxiety, irritability, impaired memory, poor concentration & depression.
Drug dependent rhythmicity of HA is present; predictable early morning (2-5 AM) HAs are frequent.

Tolerance to analgesics develops with need to progressively larger doses.

Withdrawal symptoms develop with abrupt cessation of analgesics.

Concomitant use of prophylactic medications is usually ineffective.
Medications implicated:

- Narcotics
- Benzodiazepines
- Acetaminophen
- Caffeine
- Barbiturates
- Ergotamines
- Triptans
Other SECONDARY CDHs

- Increased CSF pressure
- Decreased CSF pressure
- Vascular lesion
- Cervicogenic
- Post-traumatic headache
Treatment Strategy

For

Chronic Daily Headache
Treatment - CDH

- Stop overuse of medications – *abrupt* or *gradual*
- Warn patients about initial exacerbation of headache
- Start effective prophylactic medication
- Give intermittent DHE45, NSAIDs, Triptans, steroids or neuroleptics
- Treat comorbidities such as depression
Treatment - CDH

- Indomethacin for Hemicrania continua, paroxysmal hemicrania
Why does Treatment Fail?
Why does treatment Fail?

- The diagnosis is incomplete or incorrect
  - secondary headache disorder is undiagnosed
  - primary headache disorder is misdiagnosed
  - multiple headache disorders are present
Why does treatment Fail?

- **Pharmacotherapy has been inadequate**
  - Ineffective drug
  - Excessive initial doses
  - Inadequate final doses
  - Inadequate duration of treatment
Why does treatment Fail?

- Important exacerbating factors may have been missed
  - Medication overuse (specially OTCs)
  - Caffeine overuse
  - Dietary or lifestyle triggers
  - Hormonal triggers
  - Psychosocial factors
  - Medications that trigger headache
Why does treatment Fail?

- Other factors
  - Unrealistic expectations
  - Comorbid conditions complicate therapy
  - Inpatient treatment is required