

## **Chronic Daily Headache**

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## **Outline**

- A case of a patient with chronic headache
- Chronic Daily headache
- Focus on Migraine

## **Clinical Presentation (1)**

- 30 Y/O woman with history of depression
- 5 year history of almost 24/7 headache
- Reported holocephalic pressure (band-like) headache
- Intensity 5/10 but can get up to 10/10
- Reported nausea and photophobia sometimes
- No other associated neurological symptoms
- Reported using acetaminophen daily

## **Clinical Presentation (2)**

- Tried many OTCs, prescribed analgesics, a triptan, 2 antidepressants, a beta blocker, 2 AEDs, 2 muscle relaxants
- Reported many headache related ED visits annually
- Normal neurological exam (no papilledema)
- Normal brain MRI
- 2 women in family have headaches

## **Diagnosis & Treatment ?**

- Simple
  - Chronic daily headache (tension headache) !
  - Start a pharmacological treatment she has not tried!
- Is that it?

## **Clues to a Detailed History**

- Fluctuation of pain severity
- Associated symptoms
- ED visits
- Daily use of analgesics
- How the headache started?

## **History upon Detailed Questioning**

- Two types of headache
  - Constant pressure
  - Can have “Spikes” of severe pain lasting for hours
- Constant headache
  - Mild to moderate intensity
  - Acetaminophen takes the edge but it returns

## History upon Detailed Questioning

- Episodic pain
  - Similar headache in childhood
  - High severity and sometimes can lead to ED visits
  - 2-3 times per week
  - Throbbing pain, usually unilateral temporal but can be bilateral
  - Nausea and photophobia

## Diagnosis

- Episodic Migraine
- &
- Medication Overuse Headache

## Chronic Daily Headache (CDH)

- A spectrum of headaches
- Headache lasting more than three months
- Chronic = more days than not in a month
- Most common types;
  - Chronic tension-type headache
  - Chronic migraine
  - Medication overuse headache (MOH)

## Tension-Type Headache (TTH)

- Most common form of headache
- Overdiagnosed
  - Based on what is it not
- Classified into:
  - Infrequent episodic TTH
  - Frequent episodic TTH
  - Chronic TTH
  - Probable TTH

## Chronic TTH (ICHD-II)

### Description of Episodic TTH

A disorder evolving from episodic tension-type headache, with daily or very frequent episodes of headache lasting minutes to days. The pain is typically bilateral, pressing or tightening in quality and of mild to moderate intensity, and it does not worsen with routine physical activity. There may be mild nausea, photophobia or phonophobia.

## Chronic TTH (ICHD-II)

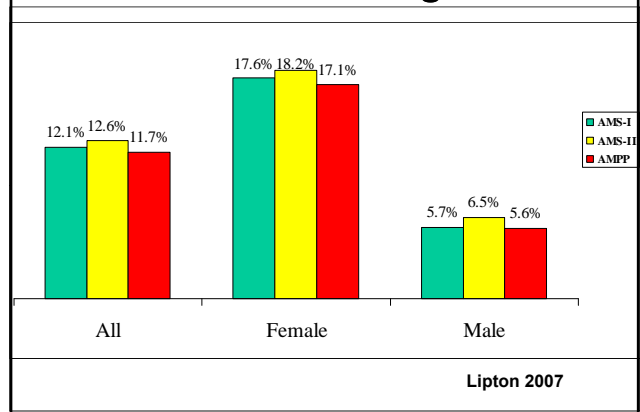
### Diagnostic criteria

- A. Headache occurring on  $\geq 15$  days per month on average for  $>3$  months ( $\geq 180$  days per year) and fulfilling criteria B-D
- B. Headache lasts hours or may be continuous
- C. Headache has at least two of the following characteristics:
  1. bilateral location
  2. pressing/tightening (non-pulsating) quality
  3. mild or moderate intensity
  4. not aggravated by routine physical activity such as walking or climbing stairs
- D. Both of the following:
  1. no more than one of photophobia, phonophobia or mild nausea
  2. neither moderate or severe nausea nor vomiting
- E. Not attributed to another disorder

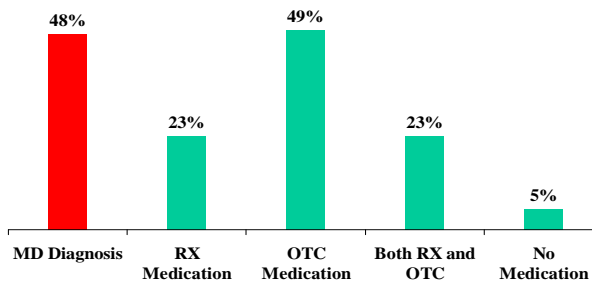
## Treatment & Prognosis

- Non-Pharmacological treatment
  - Biofeedback
  - Acupuncture, relaxation, physical therapy
- Pharmacological treatment
  - Acute (simple analgesics)
  - Preventive (Antidepressants)
- Favorable prognosis

## Prevalence of Migraine



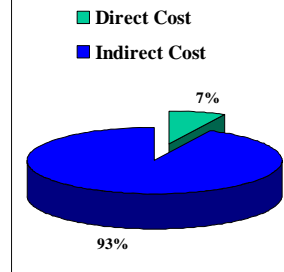
## Migraine is Underdiagnosed and Undertreated



Lipton 2001

## Economic Burden of Migraine

- Total Cost of Migraine > \$ 14 Billion
- Direct Medical Cost > \$ 1 Billion
  - Office visits
  - Inpatient visits
  - ER visits
- Indirect Medical Cost > \$ 13 Billion
  - Missed workdays
  - Loss of productivity



Hu et al, 1999

## Migraine: Diagnostic Criteria (ICHD-II)

### Description:

- Recurrent headache disorder manifesting in attacks lasting 4-72 hours. Typical characteristics of the headache are unilateral location, pulsating quality, moderate or severe intensity, aggravation by routine physical activity and association with nausea and/or photophobia and phonophobia

## Migraine: Diagnostic Criteria (ICHD-II)

### Diagnostic criteria

- At least 5 attacks fulfilling criteria B-D
- Headache attacks lasting 4-72 hours (untreated or unsuccessfully treated)
- Headache has at least two of the following characteristics:
  - unilateral location
  - pulsating quality
  - moderate or severe pain intensity
  - aggravation by or causing avoidance of routine physical activity (eg, walking or climbing stairs)
- During headache at least one of the following:
  - nausea and/or vomiting
  - photophobia and phonophobia
- Not attributed to another disorder

## **Migraine Classification (ICHD-II)**

1. Migraine without aura
2. Migraine with aura
  - a. Typical aura with migraine headache
  - b. Typical aura with non-migraine headache
  - c. Typical aura without a headache
  - d. Familial hemiplegic migraine (FHM)
  - e. Sporadic hemiplegic migraine
  - f. Basilar-type migraine
3. Childhood periodic syndromes that are commonly precursors of migraine
  - a. Cyclical vomiting
  - b. Abdominal migraine
  - c. Benign paroxysmal vertigo of childhood

## **Migraine Classification (ICHD-II)**

4. Retinal migraine
5. Complications of Migraine
  - a. Chronic migraine
  - b. Status migrainosus
  - c. Persistent aura without migraine
  - d. Migrainous infarction
  - e. Migraine-triggered seizure
6. Probable migraine

## **Diagnosing Migraine**

- Consider any episodic headache a migraine
- May use the 3-item ID Migraine Screener
  - Disability, nausea, photophobia (PPV 0.93)
- Consider a therapeutic trial of a triptan

Lipton 2003

## **Pitfalls of Migraine Diagnosis**

- Migraine is misdiagnosed as episodic tension-type headache (TTH)
- Migraine is misdiagnosed as sinus headache
- Not recognizing transformed migraine or MOH

## Pitfalls- Episodic TTH

- **Spectrum Study**
  - 32% who were initially diagnosed to have episodic TTH were determined to have migraine

Lipton 2002
- **Episodic TTH is over diagnosed**
  - TTH lacks distinctive features (migraine requires positive features)
  - Neck pain
    - reported in migraine (61% prodrome, 92% headache, 41% postdrome)
- **Both conditions share symptoms, epidemiology, precipitants, and response to treatment**
  - single entity with different severity
  - Two separate disorders

Kaniecki 2002

## Pitfalls- Sinus Headache

- Episodic “Sinus headache” is rare
- “Sinus pressure” and “sinus pain” are misleading (not uncommon in migraine)
- In 2991 patients with “sinus headache”, 88% had migraines (ICHD)

Schreiber 2004
- Sumatriptan helped to relieve headache and sinus pain more than placebo in patients with “sinus headache”

Ishkanina 2007

## Migraine Treatment

- **Non-pharmacological**
  - Triggers, sleep, schedule
- **Pharmacological**
  - **Abortive Treatment**
    - Triptans
  - **Preventive treatment**
    - Decreases frequency and severity
    - More responsive to abortive treatment
    - Indicated when migraine frequency is *high*
    - Considered if frequency is not high
      - Aura without a headache
      - Migraines not responding to abortive treatment

## Pitfalls of Migraine Treatment

- **Abortive Treatment**
  - Failure to tell patients to use treatment at onset
  - Triptans
    - Failure to recognize the proper administration route
    - Not giving sufficient trials
  - Not preventing medication overuse headache
  - Not having a plan B
- **Preventive Treatment**
  - Lack of proper instructions

## Medication Overuse Headache (MOH)

- The headache “patients and treating professionals create”
- Other terminology:
  - Analgesic rebound Headache
  - Medication induced headache
  - Analgesic induced headache

## Medication Overuse Headache (ICHD-II)

### Diagnostic criteria:

- A. Headache present on  $\geq 15$  days/month fulfilling criteria C and D
- B. Regular overuse for  $\geq 3$  months of one or more drugs that can be taken for acute and/or symptomatic treatment of headache
- C. Headache has developed or markedly worsened during medication overuse
- D. Headache resolves or reverts to its previous pattern within 2 months after discontinuation of overused medication

## Medication Overuse Headache (MOH)

- Prevalence is 0.7-1.7%
- Up to 20% of chronic headaches
- Usually in patients with episodic migraine (transformed migraine)
- Many patients with chronic migraine have it

## Medication Overuse Headache (MOH)

- Pathophysiology is not clear
- Any as needed analgesic can cause it
  - used 2-3 times per week
- Symptoms shifting, even within the same day, from migraine-like to those of tension-type headache.
- Missed frequently
  - HCPs do not evaluate for it
  - OTCs are not considered medications



## Management of MOH

- Education
- Stopping the offending agent
  - Gradual
  - Abrupt
- Provide acute treatment (bridging)
- Offer preventive treatment for the underlying episodic migraine
- Best treatment is prevention
  - Alternate analgesics

## Summary

- Chronic Daily Headache is spectrum of headaches
- Detailed history is a key in evaluating CDH
- Preventing MOH is a key in dealing with CDH

## Role of neuroimaging

## Triptans:

- Sumatriptan (Imitrex)
- Zolmitriptan (Zomig)
- Eletriptan (Relpax)
- Naratriptan (Amerge)
- Rizatriptan (Maxalt)
- Almotriptan (Axert)
- Frovatriptan (Frova)

## **Preventative medications for migraine**

- Tricyclic antidepressants
- Beta blockers
- Calcium channel blockers
- Anticonvulsants

## **Headache centers**

### **Case #1**

- 18 year old woman
- College freshman
- 3 month history of left-sided headaches lasting 4 hours occurring every 2-3 weeks
- Visual sensation of wavy lights precedes headaches
- Frequently accompanied by vomiting

### **Case #2**

- 23 year old man
- Intense retro-orbital right sided headache
- Occurs daily in mid-afternoon
- No aura; rapid onset of pain
- Unilateral rhinitis and lacrimation
- Similar bout of headaches lasted 3 weeks last year

### **Case #3**

- 50 year old man recently moved to the community
- Beginning in November, daily morning headaches that improve during the day
- Some dizziness and mild confusion
- Wife now reporting similar symptoms

### **Case #4**

- 48 year old government administrator
- Migraines for 20 years
- He has used many preventive and abortive medications without good response
- Now worse and he wants disability

### **Case #5**

- 50 year old executive
- Headaches on weekends only
- Feels fine during the week
- Also had daily headaches when on vacation recently

### **Case #6**

- 70 year old woman
- Progressively severe daily headache for three weeks
- Now having nausea and frequent falls
- No previous headache history

## **Case #7**

- **28 year old man presents to the emergency department with severe headache, nausea, and vomiting**
- **Long history of migraine headaches**