American Headache Society

Headache Curriculum

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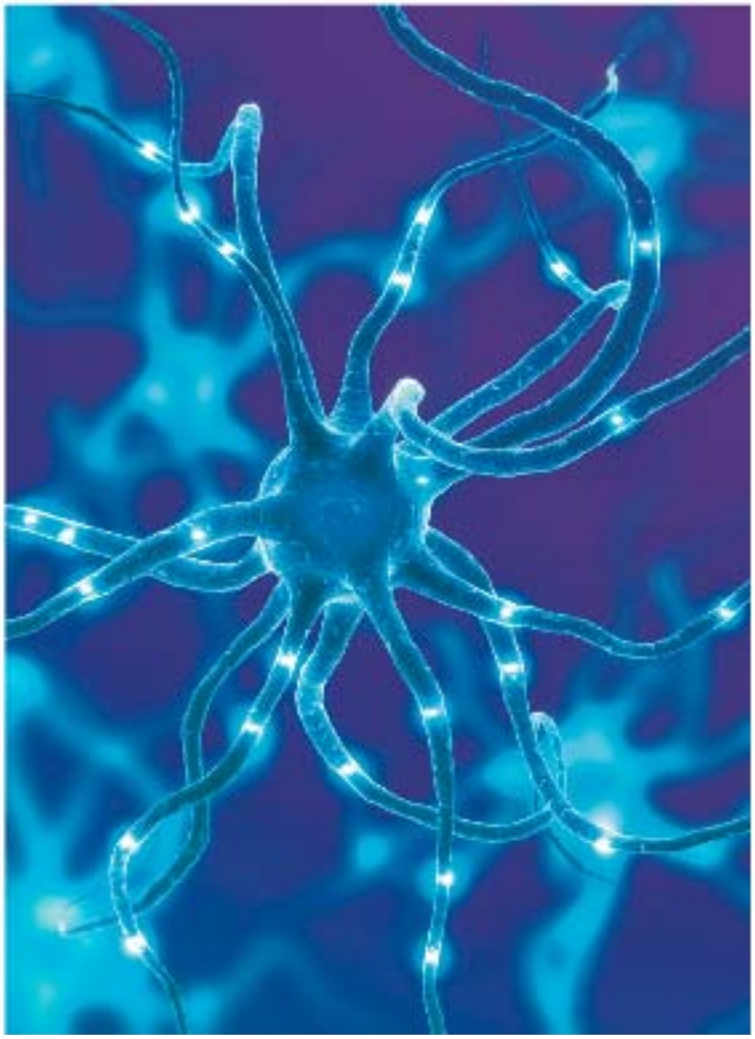


Trigeminal Autonomic Cephalalgias

Learning Objectives

- At the conclusion of this case, participants should
  - Know how to perform a differential diagnosis for trigeminal autonomic cephalalgias
  - Know the current therapeutic options for treatment of trigeminal autonomic cephalalgias

Medical History

- 35 yo female
- Pain in face and temple- right side also around eye and maxilla
- Daily pain for 20 minutes
- Early morning in timing
- Throbbing, stabbing, severity 5-8 (out of 10)
- Lacrimation on side of pain
- 2 years in duration
- Photophobia

Overview of Medical History

- No known aggravating factors
- Alleviating factors: high dose of antiinflammatory (12-16 tablets of ibuprofen daily) for partial relief of pain
- No other medical conditions
- Regular menses
- Negative history of surgeries or trauma
- Laboratory evaluations all normal

Family/Social History

Family history

- Married for 6 years, 2 children (4 yr, 5 yr)
- No known headache history in the family
- Parents and sister alive and healthy

Social history

- Works 40-hour weeks
- Administrative assistant

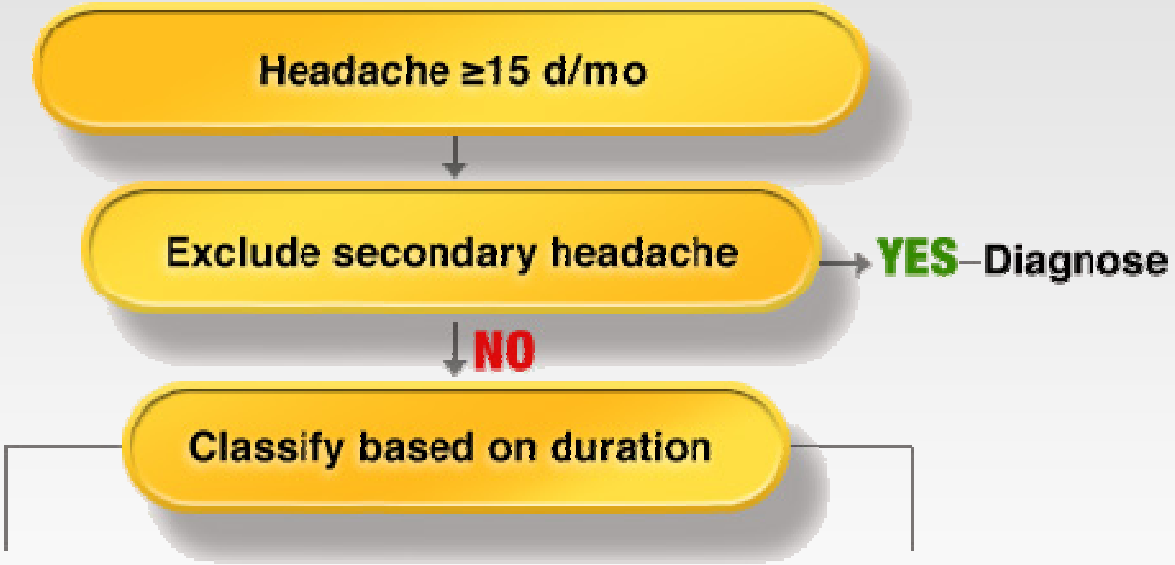
Review of Systems

- **Review of systems:**
- GENERAL: SKIN: Normal
- HEAD AND NECK: Normal
- HEMATOLOGIC: Normal
- CARDIOPULMONARY: Normal
- GASTROINTESTINAL: Normal, denied abdominal pain
- GENITOURINARY: Normal
- MUSCULOSKELETAL: Normal
- NEUROLOGIC: Normal, denied trauma
- INFECTIOUS: Past history of measles and chickenpox, denied shingles

Physical Exam

- ***General:*** Patient Ht 64; Weight 140bs; BP 120/80; afebrile. Current pain level 0 /10.
- ***Head/Neck:*** minor conjunctival inflammation
- Temporomandibular joint examination – within normal limits (no clicking, normal ROM)
- Cervical spine examination – good range of motion, NT
- Lymph nodes: no lymphadenopathy, within normal limits
- ***Heart*****:** Regular rhythm.
- ***Lungs*****:** Clear
- ***Abdomen:*** Clear
- ***Neuro***: Cranial nerve examination II – XII within normal limits with normal motor and sensory reflexes

Approaching the Patient with Daily Headache



Short duration
- Cluster headache
- Paroxysmal hemicranias
- Hypnic headache
- Trigeminal *neuralgia*
- Other

Long duration
- Chronic daily headache
- Chronic migraine
- Chronic tension-type headache
- Hemicrania continua
- New persistent daily headache
- Other

Silberstein SD et al. *Neurology.* 1996;47:871-875.
Lipton RB et al. *Proc Am Intern Med.* 2001;1:8-15.

Approaching the Patient with Daily Headache

Headache ≥15 d/mo

↓

Exclude secondary headache

→ ***Secondary headache identified*** → **Diagnose**

↓ ***Secondary headache excluded***

Classify primary headache based on duration

Short duration
- Cluster headache
- Paroxysmal hemicrania
- Hypnic headache
- Trigeminal neuralgia
- Other

Long duration
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Trigeminal Autonomic Cephalalgias

- Cluster headache
  - Episodic cluster headache
  - Chronic cluster headache
- Paroxysmal hemicrania
  - Episodic paroxysmal hemicrania
  - Chronic paroxysmal hemicrania (CPH)
- Short-lasting unilateral neuralgiform headache attacks with conjunctival injection and tearing (SUNCT)
- Probable trigeminal autonomic cephalalgia
  - Probable cluster headache
  - Probable paroxysmal hemicrania
  - Probable SUNCT

Question 1: Which of the following would be a possible diagnosis for this patient?

- ❑ Migraine
- ❑ Cluster headache
- ❑ Chronic paroxysmal hemicrania

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- ❑ Migraine
- ❑ Cluster headache
- ✓ Chronic paroxysmal hemicrania

Clinical Features of Paroxysmal Hemicrania

- Severe, unilateral, orbital, supraorbital or temporal pain that lasts from 2 to 20 minutes in duration
- Headaches accompanied by:
  1. Ipsilateral conjunctival injection/and or lacrimation
  2. Ipsilateral nasal congestion and/or rhinorrhea
  3. Ipsilateral eyelid edema
  4. Ipsilateral forehead and facial sweating
  5. Ipsilateral miosis or ptosis.
- Frequency of about >5 per day for more than half the time
- Responds absolutely to indomethacin

Clinical Features of Cluster Headache

- Severe, unilateral, orbital, supraorbital or temporal pain that lasts from ***15-180 minutes*** in duration
  1. Conjunctival injection, lacrimation
  2. Nasal congestion, rhinorrhea
  3. Eyelid edema
  4. Forehead and facial sweating
  5. Mitosis, ptosis
- Frequency of ***every other day to 8/day***

Other Features of Cluster

- 75% males; 25% females
- Onset 20-40 yrs
- 5 % of cases may be inherited
  - Autosomal dominant link
- 10-15% have chronic cluster
  - No remission

- Common triggers
  - Alcohol
  - Histamine
  - Nitroglycerine
- May occur during sleep
  - Up to 80% have obstructive sleep apnea

Question 2: Which of the following headache conditions may neuroimaging be considered for a differential diagnosis?

- ❑Migraine
- ❑Tension-type headache
- ❑Cluster
- ❑Paroxysmal hemicrania
- ❑SUNCT

Question 2: Which of the following headache conditions may neuroimaging be considered for a differential diagnosis?

- ❑ Migraine
- ❑Tension-type headache
- ✓ ? Cluster
- ✓ Paroxysmal hemicrania
- ✓ SUNCT

Question 3: Which treatments are effective in chronic paroxysmal hemicrania?

- ❑ Indomethacin
- ❑ Ibuprofen
- ❑ Topiramate
- ❑ Triptans

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Question 4: Which treatments are effective for cluster headache?

- Nonpharmacologic acute therapy
- Pharmacologic acute therapy
- Nonpharmacologic prophylactic therapy
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- ✓ Nonpharmacologic acute therapy
- ✓ Pharmacologic acute therapy
- ❑ Nonpharmacologic prophylactic therapy
- ✓ Pharmacologic prophylactic therapy

Clinical Course

- Indomethacin 25 mg/d tid
  - Dose escalated 25 mg/wk to max daily dose of 150 mg (after 3-5 days)
- Record attack symptoms on diary
  - Frequency of attacks
  - Signs and symptoms associated with each attack
  - Treatment taken
  - Time to relief
  - Other important triggers or factors that she noticed.

Follow-up

3 months return to office with diary

- Diary was well completed for first 2 weeks, then relatively unpopulated due to good control
- Achieved pain-free within 48 hours of starting treatment
  - Some gastrointestinal upset
    - Prescribed proton pump inhibitor
  - Dose of indomethacin reduced to 125 mg/d

6 months- indomethacin discontinued due to gastrointestinal side effects

- Asked to return to office if headaches returned