Case Discussion 2

Content developed by:
R. Allan Purdy, MD, FAHS
Donna Gutterman, PharmD

Faculty Disclosures

R. Allan Purdy, MD, FAHS
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Donna Gutterman, PharmD
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Learning Objectives

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

- Appreciate the quantity and complexity of treatment choices made by physicians and patients in the management of migraine
- List the steps in the management of low-frequency leading to high-frequency migraine
- Apply a balanced approach to therapy and management of acute migraine and its transformation in clinical practice

Kate's History

- 24 year-old female
- Consults family physician about headache
  - Severe attacks began around age 8
  - Pain is dull and throbbing in the right eye and can involve her entire head
  - Accompanied by nausea and vomiting, sensitivity to light, sound, odors, and movement
  - Sleep helps
- Her examination is completely normal

Kate's History *cont.*

- She experiences 1–2 attacks/month
- Duration of symptoms: 8–12 hours (untreated)
- Occasional ER visits

Visual symptoms began at age 12

- Some attacks
- Description: "a broken mirror with colors and other shapes"
- Duration of symptoms: 30 minutes
- Followed by typical headache

Case Comments

- Triggers?
- Laterality?
- Autonomic symptoms?
- Aura? (sensory, visual, motor, brainstem)
- Menstrual related?
- Other headache types?
- Is she **really** pain free between attacks?
  - Background daily headache?
  - Pain-free days/month vs headache days?

Case Comments *cont.*

- Use of abortive therapies?
  - Triptans, NSAIDS, analgesics?
  - Frequency and pattern of dosing?
  - Combination therapies?
  - Duration of time medications were taken?
- Response to therapies
  - Beneficial effect? No effect? Side effects?
  - Reason for stopping?
- Prior use of preventive therapies?

Lifestyle Issues and Triggers

- Migraine triggers include:
  - Stress, occasionally relaxation following stress
  - Alcohol, poor sleep, oversleeping, hunger/thirst
  - Menstrual periods
  - Weather (changes in weather/barometric pressure)
- Diet often overstated as a trigger
- In terms of modifiable triggers, migraine seems to respond best to routine, with regular:
  - Sleep
  - Meals
  - Exercise

Overemphasis on finding hidden triggers and trigger avoidance may be counterproductive!

Assuming Episodic Migraine

- Take a triptan?[1]
- Use an NSAID or analgesic?[2]
- Modify any trigger factors?
- Consider CAM therapies?
- Must be more than a diagnosis

1. Ferrari M et al. *Lancet.* 2001;358:1668–1675. 2. Tfelt-Hansen P. *Headache.* 2008;48:601–605.

Case Study 2 ARS Question 1

What should Kate do?

A. Take a triptan?
B. Use an NSAID or analgesic?
C. Modify trigger factors?
D. Consider CAM therapies?

Case Study 2 ARS Question 2

How should we manage Kate's headaches?

A. Stepped treatment?
B. Stratified treatment?
C. Stepped care within attacks?
D. None of the above?

Case Study 2 ARS Question 3

Which triptan should we use?

A. Sumatriptan
B. Rizatriptan
C. Zolmitriptan
D. Almotriptan
E. Eletriptan
F. Naratriptan
G. Frovatriptan

Back to Kate. . .

- Tried taking acetaminophen or ibuprofen for her headaches—some relief for non-severe HA
- History of depression
- No history of other major medical disorders
- Non-drinker and non-smoker
- Takes folic acid; no history of drug allergies
- Maternal grandmother and sister have migraine
- Works as an office manager and her common-law partner is in business
- She has a university degree

More Information About Kate

- Kate's physician recommended that she *should* take a triptan
  - Over the next few months, she used the triptan on 3 occasions
  - Each time it was helpful, generally relieving attacks within about 1 hour
- Other questions. . .

What Else? Questions?

- What about her aura?
- What about the OCP?[1]
- What if she had menstrual-related headache?[2]
- Should she use an estrogen patch or not, or use a triptan or NSAID?

1. Bushnell CD. *Neurol Clin.* 2008;26:1161–1176.
2. Silberstein SD et al. *Headache.* 2008;48 Suppl 3:S115–S123.

Case Study 2 ARS Question 4

Would you give her an OCP?

A. Yes
B. No
C. It depends

Oral Contraceptives and Aura[1]

- Increased risk of stroke with high dose OCPs
  - 50-150ug estrogen
  - Some lower dose (<50ug)
- Migraine with aura is one of the highest risk factors for stroke in women[2]
- Does combining these risk factors produce synergistic effects?[3]
- Ultra-low estrogen doses (<25ug ethinyl estradiol) does not increase the stroke risk if used in normotensive non-smokers
- Current practice is still to avoid COCs

1. Calhoun, A. *Headache*. 2012; 648–660.; 2. Women's Health Study, 2013.; 3. Tzourio et al. *BMJ*. 1995;310:830–833.

Menstrual-related Migraine

- Menstrual attacks can be:
  - More severe, recurrent, disabling and longer lasting
  - Less responsive to treatment
- Acute treatment is the same
- Intermittent prevention/Short-term prophylaxis
  - Frovatriptan or zolmitriptan: Day-2 – Day+4
  - Transcutaneous estrogen: Day-5 – Day+2

Evolution of Kate's Headache Condition. . .

- The following year
  - Uncomplicated pregnancy
    - Several attacks during her first trimester
    - Few attacks later in her pregnancy
  - Acute treatment: acetaminophen or codeine
- 6 months post-partum
  - 2–3 attacks/month
  - Usually occur perimenstrually
  - Triptans provide relief in 2–3 hours (untreated 24-hour pain)

BUT. . .
Kate's Condition Becomes More Interesting

- Still has visual aura that lasts up to 45 minutes
- Describes a new premonitory symptom: numbness
  - Episodes starting in the fingers of one hand, slowly spreading up the arm to the face and tongue over several minutes
  - Resolved after about 20 minutes
  - Most are on the right side; ≥1 was on the left

Neurological Review: Normal

- MRI because of change in aura symptoms
- Attacks have increased in frequency
  - 2-3/week
  - More disabling; missing work
- Responds to triptan taken 1-2 times/week
- Also reports. . .
  - Feeling low
  - Not sleeping well
  - No appetite
  - Weight loss

Presence of Comorbid Condition

- May need preventive treatment
  - Frequent, typically disabling attacks
  - Depressive symptoms
- Initial approach
  - Trial of amitriptyline
  - Headache diary
- At 6 months
  - No migraine-related absenteeism
  - Down to 3-4 attacks/month
  - Sleeping and eating better
  - Weight stabilized

Prognosis with respect to migraine?

Final Therapeutic Thought!

"The good physician treats the disease; the great physician treats the patient who has the disease"

Sir William Osler 1849-1919