Heather's Chronic Migraine: an Interactive Case History

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This column will take you, step by step, through the diagnosis of a complex headache patient with the pseudonym of "Heather."

Initial History

New patient "Heather" is a 24-year-old hairdresser with migraines since age 12, which have been slowly increasing. In the last three years she has endured daily headaches. Her mom and sister also have migraines. Her usual daily headache is an aching, throbbing moderate headache, with photophobia. About six times per month Heather has a moderate to severe migraine, lasting one day, with nausea. She has been diagnosed with chronic migraine (CM). Triggers for her more severe migraines include weather changes, stress, and menstrual (1 day prior to her menses).

Heather has also struggled with Irritable Bowel Syndrome (IBS) for much of her life; she has occasional constipation, but diarrhea and cramps are her usual symptoms. She has not been treated for this. She is 5'5", weighs 128, and has, at times, struggled with weight gain. She does not smoke cigarettes.

Besides the daily headache, Heather has associated neck pain, with tenderness in her neck and shoulder muscles. She clenches her teeth, and grinds them, particularly at night while sleeping. She was prescribed diazepam, but says, "I became wired and had a bad reaction on it…"

Heather has not been on daily preventives. She consumes four Extra Strength Excedrin daily, and, for her migraine uses hydrocodone. This dampens the pain but does not help more than 30%.

Psychological Aspects

Heather also has been diagnosed with generalized anxiety disorder and depression. She first became depressed at age 14, and has had mild to moderate chronic depression since age 18. There is a strong family history of anxiety and depression. Her grandmother was hospitalized for possible depression, and an uncle committed suicide. Heather's mom suffers from lifelong depression, and has struggled with alcoholism.

Heather is chronically irritable and somewhat angry; she is prone to bouts of road rage. She has several spells a year which she describes as, "too much energy, where I don't sleep much." In certain seasons, she seems to cycle into worsening depression.

Heather was placed on fluoxetine, and she "was up all night, my mind was going too fast." She was then prescribed Cymbalta, and the same thing happened. Heather also becomes "wired" from certain meds, such as pseudephedrine.

In summary, Heather has: moderate daily headache, with migraines six times a month, plus anxiety and depression, IBS, and neck pain.

QUESTION: Outside of medication, what would you suggest for Heather?

We need to teach Heather about regular sleep habits, not missing meals, avoiding too much caffeine, identifying stresses that may contribute to her headaches, exercise and posture, etc.

In addition, a referral to a good psychotherapist would be beneficial, as would biofeedback by a skilled therapist. Psychiatric referral would be a reasonable choice as well.

For the neck pain, physical therapy may be helpful, at least as far as teaching about exercise and posture. Heather's profession as a hairdresser often will exacerbate neck pain and the headaches, due to the constant arm movements. A dentist who is adept at evaluating TMD may be beneficial for Heather as well.

We do not expect Heather to rush off to the psychologist, psychiatrist, physical therapist and dentist all at once. Because of money and time, most patients carefully select which healthcare professionals they visit. However, it 'takes a village' to treat a complicated pain patient, and I try to send the patient to 'other villagers'.

QUESTION: What type of depression does Heather suffer from?

We need to think about the mild end of the bipolar spectrum. Some 8.6% of migraineurs fit into the bipolar spectrum, according to one study. Heather has a number of features of bipolar, including early depression (age 14), and a family history of depression, suicide and substance abuse. Other indicators are her irritable/angry personality, cyclical depression, spells of too much energy, and poor (bipolar) reaction to certain meds (antidepressants, pseudoephedrine, diazepam). The clinical stakes for missing bipolar are enormous; people like this tend to bounce from antidepressant to antidepressant, with predictably poor results.

QUESTION: What are the initial choices of preventive medication for Heather?

Comorbidities, along with the headache characteristics, guide where we go with the headache meds. Along with the CDH and migraines, Heather fits the mild end of the bipolar spectrum, has IBS (primarily diarrhea), neck pain, and has struggled with weight gain. All of these characteristics figure into our medication choices.

As a headache preventive, topiramate may be a good choice. It will not cause weight gain, and may decrease appetite for some period of time. It may act as a mild mood stabilizer, although studies have been both positive and negative on topiramate as a bipolar medication, and topiramate may certainly exacerbate depression. We would begin with a low dose because headache patients tend to be somatic, and will not tolerate large initial doses, which leads to them quitting the medicine prematurely. My recommendation would be: topiramate, 25mg., one at night for the first 6 nights, then, if tolerated, increasing to 50mg at night. Utilizing the topiramate at night may minimize cognitive side effects and fatigue. Some patients cannot tolerate more than 25mg of topiramate. The usual dose is 50mg to 100mg, although some patients do well on 25mg, while others require 300 or 400mg. per day. The cognitive side effects of spacey feelings and memory problems often limit topiramate's use, as does the tingling sensation in fingers and toes. Primarily due to carbonic anhydrase activity, the tingling is sometimes offset via the use of potassium, either natural or in tablets/powder.

QUESTION: Which abortive meds would you consider?

Most daily headache patients have 2 or 3 abortives; they may have something for milder daily headaches, a migraine medication, and an 'escape' analgesic for the severe migraine. With Heather, we do not want to go down the road of overused daily analgesics, but most patients want and need something for the daily headaches, as well as for the migraine. In Heather's case, we need to emphasize that we do not want to constantly chase the headache all day, but rather use the preventive meds, and non-medication techniques, to decrease the severity.

For Heather's migraines, my recommendation would be sumatriptan, 100mg. tabs. If patients have never used a triptan before, I start with a low dose the first time, such as ½ of a tablet. Many patients are frightened by the muscle pressure, tingling, and other side effects of the triptans, and we need to test them on a low initial dose. This will improve compliance. With the triptans and other antimigraine abortives, early intervention is crucial; there is an enormous difference between using the triptan in the first ½ hour, and waiting an hour or more.

For Heather's nausea, we prescribe ondansentron, 8mg., as this is the only antiemetic that is non-sedating. We stop the hydrocodone, except as an "escape" medication, used on a very limited basis.

For Heather's daily headaches, we discontinue the Excedrin, and have her use naproxen, with limited amounts of caffeine. I try and limit caffeine intake to 150mg., or at most 200 mg. a day. She was taking 250 mg. just in her daily dose of four Excedrin, with more in coffee, tea and colas. The idea with daily abortives is to limit caffeine, use the longer acting nsaids such as naproxen, and avoid addicting meds.

Initial Prescription

Heather has started on topiramate as a preventive, and sumatriptan as the primary abortive, with naproxen, ondansentron and limited hydrocodone.

QUESTION: What other preventive medicines are possibilities?

When we initially see a complicated headache patient, our list of possible meds takes into account a number of factors, including all of the comorbidities: psychiatric, medical and GI. It is helpful to note these other medicine possibilities in the chart; headache patients call often, as the meds may be ineffective or have side effects. We need to be able to easily switch meds. If you work with other physicians, they should be able to scan the chart and select another appropriate med.

With Heather, other preventive possibilities would be noted in her chart, as follows:

Petadolex, an excellent evidence-based natural preventive

lamotrigine, which may be helpful for her mild bipolar depression, although there is less evidence for helping the headaches

verapamil, which may help the headache, and also the diarrhea with IBS

gabapentin, which is safe, inexpensive, and easy to use

sodium valproate could help her bipolar depression, but weight gain is a drawback, and we would need to warn her about risks of pregnancy

oxcarbazepine, an anticonvulsant with more efficacy for her bipolar than headaches

ARB's such as Atacand or Benicar. These would avoid the weight gain of the beta blockers.

muscle relaxants such as tizanidine, etc..

It should be noted in Heather's chart that lithium is a possibility, not for the headaches but for the bipolar issues. Lithium is underused, and many mildly bipolar patients state that they "finally feel normal" once lithium is given. In addition, the atypicals, such as quetiapine (Seroquel), may be useful, not only for Heather's moods, but for the headaches as well.

Drugs that we want to avoid include the tricyclics (amitriptyline, nortriptyline, etc.), as they may exacerbate the bipolar illness and cause weight gain.

If Heather is on adequate mood stabilizing medication, we may be able to utilize antidepressants. The use of antidepressants in bipolar patients is still controversial; for some, they help the depression with no side effects, and in others, even a small dose will trigger hypomania. If Heather is on mood stabilizers, we may be able to add a small dose of an ssri, or similar med.

Beta blockers are also to be avoided, as we do not want to incur weight gain, and these may exacerbate Heather's depression. If a patient's headaches are improved, but she gains 20 lbs. and is tired from the medicine, it is not the answer in the long run.

QUESTION: What about other abortive possibilities?

For other abortive possibilities, we would note in the chart the following:

1. Other triptans; if sumatriptan does not work out, it is worthwhile to use another triptan. Since these are far superior to our other choices, it is worthwhile to try at least three before giving up on the class.
2. Other nsaids (she is on naproxen); nsaids are not addicting, and do not cause fatigue.
3. MigraTen; this is a good combination of a mild vasoconstrictor, 100mg caffeine, and acetaminophen. MigraTen fits the bill as a non-addicting or sedating milder medicine, useful for moderate headaches. We need to be careful with the amount of caffeine, however.
4. Dihydroergotamine (DHE) is primarily a venoconstrictor, not arterial, rendering it safer than other ergots.
5. We would also consider other antiemetic meds, such as prochlorperazine. We did prescribe ondansentron, one of the antiemetics that does not cause sedation.

Heather's Second Visit, Six Weeks Later

Heather reports that the topiramate has lessened the frequency of the migraines, and the daily headaches are not quite as severe. However, she is having a difficult time with her memory, and does not feel that she can increase the dose past 50mg. The depression is possibly worse on the topiramate, but she wishes to continue with it, as it 'is the first drug that has decreased how severe my headaches are.'

OTC naproxen helps her to some degree, and she is limiting her caffeine to 150 mg. daily. For the migraines, the sumatriptan helps only 25%, but the ondansentron is effective for her nausea.

Heather has begun to see a psychotherapist, who is teaching her to do biofeedback. She feels that this is helpful. She is exercising 20 minutes daily, on average.

QUESTION: What would you consider as far as Heather's daily preventive meds at this time?

We choose to continue with the topiramate, as it has helped. We cannot increase the dose, due to the cognitive side effects. Because of the depression, which is probably mild bipolar, we add quetiapine (Seroquel). It is important to begin with low doses of quetiapine, as many patients will quit the drug due to sedation. We start with 25mg. at night, and increase to 50mg. after 1 week. The atypicals carry the warning of an increased risk of developing diabetes, and of course, this must be communicated through informed consent. For most patients, I try to utilize as low a dose as is effective. Naturally, we warn Heather about possible sedation and weight gain. Some bipolar patients will have a paradoxical reaction to certain atypicals, and actually experience hypomania, usually mild. For the bipolar, lithium carbonate is a strong consideration.

QUESTION: For Heather's abortives, the sumatriptan was only mildly effective; what would you consider?

I do not want to quit the triptan class, as these are the most likely meds to stop the migraine, with minimal side effects. I would substitute rizatriptan, 1 tab every 3 hours prn, 3 in a day at most. The naproxen, limited to one or two OTC tabs per day, has been useful for her daily headaches, and ondansentron helps her nausea. She has only used 3 tabs of hydrocodone as an "escape" analgesic.

Summary

Heather is currently on: topiramate, 50mg. qhs, quetiapine, slowly increasing to 50mg qhs, and prn she uses: OTC naproxen, rizatriptan, and ondansentron, with occasional hydrocodone as a back-up.

In addition, Heather is watching triggers (regular meals, sleeping on time, etc.), exercising 20 min. per day, and seeing a psychotherapist for therapy and biofeedback.

Two Weeks Later: a Call from Heather

She reports that the quetiapine seems to help her mood the next day, but is sedating, and she cannot take more than 25mg. at night. Rizatriptan has not been helpful, and she had to resort to the hydrocodone for her last migraine.

QUESTION: Would you change meds on the phone at this point, and if so what would you consider?

Since Heather seems to tolerate the low dose of quetiapine fairly well, and it may be starting to help her moods, we would continue this drug. On a mood stabilizer, such as lithium, lamotrigine, or quetiapine, Heather may be able to tolerate a low dose antidepressant.

As far as her abortive medicines, the sumatriptan and rizatriptan have not been particularly effective. At this point, it is worthwhile to try one more triptan, either sumatriptan injections, the most effective form, or zolmitriptan nasal spray. Since she does not want to give herself an injection, we would prescribe the zolmitriptan nasal spray. As usual, the instructions will be to use this early in the headache. This is a very effective triptan that bypasses the GI tract, and has a relatively quick onset of action.