



PALLIATIVE CARE CASE OF THE MONTH

“Transformation to chronic migraine: A dilemma for migraine patients with cancer pain”

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Case: JH was a 43-year-old woman with breast cancer and cutaneous chest wall and axillary metastases. She also had a history of lifelong episodic migraines. Prior to developing cancer pain, the migraines occurred at most one or two times a month. When they did occur, they responded well to 50mg of PO sumatriptan. The patient developed severe disabling pain from her metastases and was first prescribed long-acting oxycodone 10mg every 12 hours and short acting oxycodone 5mg as needed per her oncologist. Although the oxycodone controlled her cancer pain she developed worsening headaches after starting it. She described waking up every morning with a headache that felt like her usual migraine but did not respond to the sumatriptan 50mg as they had in the past. She reported a partial response of headache pain to a dose of as needed oxycodone.

This prompted a consideration that the oxycodone might be exacerbating migraines. She was started on extended release propranolol 80mg a day as prophylactic migraine therapy. Although she continued to experience daily migraine aura, she seldom went on to develop a headache. When she did experience a headache, she was prescribed 100mg of sumatriptan for abortive therapy, which was effective. Morphine and lidocaine compounded cream was prescribed topically to help ease pain from cutaneous metastases and limit the amount of as needed oxycodone required. With these interventions the patient’s pain and headaches were more manageable, and she was actually able to go on vacation to visit family, something she was concerned she would be unable to do because of her headaches and cancer pain.

Discussion: Although there is no evidence to support that opioids trigger migraine headaches, overuse of opioid pain medications for the treatment of pre-existing headache has been causally related to subset of chronic headaches called medication overuse headaches (MOH). Diagnostic criterion for MOH include headache on ≥ 15 days per month, regular overuse of acute headache treatments for > 3 months, and for whom headache has dramatically worsened during the period of overuse. MOH is the third most common etiology of chronic headache after tension and migraine headaches. Opioid overuse headache is a subset of MOH referring to patients who over consume opioid analgesics to treat headache (1).

Chronic migraine, previously called transform migraine, has similar diagnostic criterion to MOH. However, while the diagnosis of MOH requires documented overuse of medications, development of chronic migraine can be related to factors other than medication overuse. To meet diagnostic criterion for chronic migraine, patients must experience a headache on ≥ 15 days per month for > 3 months, and also have a prior history of 5 or more migraines with or without aura that was relieved by an triptan or ergot derivative.

Patients with episodic migraine progress to chronic migraine at a rate of about 3% per year. Risk factors for this transformation are myriad, but include female sex, stressful life events and comorbid pain disorders. Medication overuse is considered a contributor to chronic migraine if abortive medication for migraine, including opiates, are used on a regular basis for 10 or more days per month. Treatment of chronic migraine includes trigger avoidance and prophylactic therapy. In situations when a patient has no reason other than headache for taking opiates, opiates are tapered and avoided. When triggers cannot be avoided, prophylactic therapy is the mainstay of treatment. Oral agents that have been shown to be effective in randomized studies for use as prophylaxis include topiramate, onabotulinumtoxinA, sodium valproate, gabapentin, tizanidine and an amitriptyline. Other drugs that have been shown to be effective in open-label studies include atenolol, memantine, pregabalin, and zonisamide (2).

Our patient’s clinical picture fits that of chronic migraine triggered by opioid use for chronic cancer pain. Interestingly, literature has shown that when patients use opiates for indications other than headache, those with a history of episodic migraines go on to develop MOH while patients without a history headaches do not (1). In fact, two studies of patients using opiates for chronic conditions both found that patients with a prior history of migraine were much more likely to develop chronic daily headache than other patients on similar doses of opiates (3,4).

In conclusion, when treating cancer pain for patients with a history of episodic migraine, care should be focused finding non-opioid treatments options if possible. When opiates are required to controlled pain, patients should be regularly asked about increased headache frequency and prescribed prophylactic therapy if headaches become chronic.

References:

1. Johnson JL, Hutchinson MR, Williams PR et al. “Medication-overuse headache and opioid-induced hyperalgesia: A review of mechanisms, a neuroimmune hypothesis and a novel approach to treatment”. *Cephalalgia* 2012;33(1):52-64.
2. Schwedt TJ. Chronic migraine. *BMJ* 2014;348:g1416.
3. Wilkinson SM, Becker WJ, Heine JA. “Opiate use to control bowel motility may induce chronic daily headache in patients with migraine.” *Headache* 2001; 41:303-309.
4. Bahra A, Walsh M, Menon S, et al. “Does chronic daily headache use arise de novo in association with regular use of analgesics?” *Headache* 2003; 42:179-190.

Personal details in the case published have been altered to protect patient privacy.

For palliative care consultations please contact the Palliative Care Program at PUH/MUH, 647-7243, beeper 8511, Shadyside Dept. of Medical Ethics and Palliative Care, beeper 412-647-7243 pager # 8513, Perioperative/ Trauma Pain 647-7243, beeper 7246, UPCI Cancer Pain Service, beeper 644 –1724, Interventional Pain 784-4000, Magee Women’s Hospital, beeper 412-647-7243 pager #: 8510, VA Palliative Care Program, 688-6178, beeper 296. Hillman Outpatient: 412-692-4724. For ethics consultations at UPMC Presbyterian-Montefiore and Children’s page 958-3844. With comments about “Case of the Month” call Dr. Robert Arnold at (412) 692-4834.