A 54-year-old woman with migraine and recently escalating opioid use

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A neurologist and a GP/pain medicine specialist discuss their own aspects of care of this middle-aged woman with migraine who has recently escalated her opioid use and is also taking benzodiazepines.

Case scenario

Ms FM, aged 54 years, suffers from migraines and has longstanding problems with the use of benzodiazepines and prescribed opioids. She smokes a minimum of 25 cigarettes a day. Her current weight is 89 kg, height 162 cm and BMI 33.9 kg/m². She is the principal carer for her father, who has dementia.

Ms FM is referred for review of her migraine management, as her current intake of opioids has recently escalated from oxycodone 10 to 20 mg 'as required' to regular daily doses in excess of 80 mg controlled release oxycodone. She had previously seen a neurologist, but claims the migraine-specific medications that were prescribed at that time did not work.

Ms FM does not drink alcohol and is not taking any other medications. Her liver and kidney function appear to be normal. She 'came out' declaring her lesbian preference in her early 30s but has never had a long-term relationship.

The challenges for this woman are:

- *fear of weight gain if she stops smoking cigarettes*
- *dependence on opioids for recurrent episodes of migraine*
- *a family history of addiction: her mother used regular APC (aspirin, phenacetin and caffeine) powders for her 'headaches' until her death from kidney failure, her brother died in his early 20s from a drug overdose and her father is a smoker.*

How should Ms FM be managed?

Commentary from a neurologist

By Michael Eller

Migraine is the sixth most common cause of disability worldwide.[1] It is a difficult problem that impacts across different cultures and countries at similar frequencies. Many people in the wider community understand migraine to be a mild episodic complaint that affects women. The cumulative lifetime incidence of migraine is

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Key points

- **Opioids should be avoided in migraine therapy.**
- **Opioids can alter the biology of migraine over time, making migraine symptoms more frequent and intense.**
- **An inpatient approach may be warranted to wean patients off opioids and benzodiazepines and break a drug overuse headache cycle.**
- **Pain management is multi-dimensional and the psychosocial, environmental and biomedical aspects are equally important.**
- **Dependence and addiction are psychosocial as well as neurobiological.**
- **Shared care with a pain or addiction specialist may ease the burden of managing patients who are addicted to opioids; such patients often benefit from a comprehensive care plan.**

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43% in women and 18% in men; many of these people have regular episodes of headache, which can substantially impact on their quality of life.[2] About 2% of the population have chronic migraine, which is headache occurring on more than 15 days a month, of which eight days fulfil the diagnostic criterion for migraine.[3] That equates to almost 500,000 people in Australia. Many of these people do not seek health care, considering it to be 'just a headache', even if their ability to establish employment and long-term relationships is impacted.

Ms FM has difficulty with addiction to both prescribed opioids and benzodiazepines. A thorough history of any illicit drug use will be an essential part of her assessment. She also smokes. If she has comorbid aura symptoms accompanying her migraine, smoking can multiply her risk of stroke.[4]

In Australia opioids are widely used in migraine management, largely related to their over-the-counter (OTC) availability. In this case, however, they have been prescribed. Opioids should be avoided in migraine therapy. This class of medications tends to be of modest benefit only in the acute setting; there are alternatives such as non-steroidal anti-inflammatories (NSAIDs) and triptans such as sumatriptan that tend to be significantly more efficacious. Worse still, opioid use tends to alter the biology of migraine over time, making migraine symptoms such as headache more frequent and intense. It is likely there is no lower limit of opioid use where migraine frequency will not be influenced. In other words, the best way for a migraineur to progress from infrequent to daily headache is to use opioids. Mood-related and cardiovascular comorbidity, disability and health resource use are also increased in patients with migraine taking opioids.[5] Formally, opioid overuse is considered to be comorbid with chronic migraine when opioids are used 10 or more days a month.[6]

Many migraine preventive medications are ineffective in the context of medication overuse. As such it is likely that previous failed trials were noncontributory except in demonstrating which medications are poorly tolerated in this patient. Exceptions to this rule include topiramate and botulinum toxin-type A, which have an evidence base in this setting. Regardless, all migraine preventives are more likely to be effective without comorbid medication overuse.

Interventions

Limit opioid and benzodiazepine use

The first intervention for this patient is to try to limit her escalating opioid use. A simple discussion, informing her of the pitfalls of opioid use in this setting may be enough. Often patients are not aware this is a problem, especially if these medications have been prescribed. A multidisciplinary approach involving the patient's GP and possibly a psychologist and/or a drug and alcohol physician will be an important part of management. Ideally, close collaboration with other members of the care team will facilitate Ms FM's ability to decrease painkiller and anxiolytic use in a way that preserves her dignity and independence and enables her to continue to care for her father. This approach should also help her with other elements of her health care, such as overweight and cigarette dependence.

If it is thought that a patient may struggle with weaning their opioid and benzodiazepine use independently, as is likely in this case, an inpatient approach may be warranted. The woman's father may need to go into respite for a period of time to enable this. Strategies involve admission into a hospital with managed opioid and possibly benzodiazepine withdrawal, although gaining access to a public hospital bed can be challenging. Seizures can be precipitated during benzodiazepine withdrawal; to mitigate this risk, withdrawal should be gradual.

Break the headache cycle

Once opioid withdrawal has been achieved, inpatient lidocaine (lignocaine) or dihydroergotamine can be used to try to break the headache cycle. The former strategy takes 10 days, the latter five days. Most patients have significantly improved headache burden and quality of life subsequent to these treatments in the long and medium term, respectively.[7,8]

The inpatient stay is also an opportunity for the patient to receive counselling in a supportive environment.

Check for underlying depression and anxiety

The patient may have underlying depression and anxiety, both of which are extremely common in this setting.[5] Once a therapeutic relationship has been established with a psychologist and/or a psychiatrist as well as their other caregivers, the patient may feel more confident to explore any other issues that may be driving some of her addictive behaviour.

Start migraine preventive treatment

Subsequently, a new migraine preventive can be started. The choice should be determined following a discussion of the likelihood of success, and tailored to which side effects the patient would particularly like to avoid. For example, given this patient has expressed concern regarding weight gain, medications that may precipitate weight gain such as pizotifen can be avoided.

Create a management plan in collaboration with the patient

A management plan regarding appropriate medications to use in the acute and preventive settings will help to decrease this patient's disability without compounding her difficulties. She should understand that oral migraine preventives such as topiramate do not work instantaneously, but must be used at the target dose for several weeks before any appreciable effect may occur. Underdosing or early discontinuation of migraine preventives due to perceived lack of effect are two of the most common pitfalls of migraine therapy. Migraine treatment trials require patience and perseverance from both clinicians and patients.

Ongoing counselling regarding mood and addictive behaviour may help to prevent patients from relapsing into their previous pattern of opioid use. Most people in this patient's situation will achieve substantial improvement in their headache morbidity

simply by weaning opioids. As such, they are very rewarding to treat.

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Commentary from a GP/pain medicine specialist

By Ian Thong

This case is a common presentation in general practice and highlights the complex predicament of chronic pain, long-term use of medications and nicotine, and psychosocial factors, beliefs and fears that have led to higher use of opioids. Breaking down the problems into steps, stages and priorities is helpful to formulate a treatment plan.

Causes

Headache diagnoses to consider other than the more serious causes indicated by red flags include cervicogenic, tension-type, medication overuse and trigeminoautonomic headache as well as migraine and transformational migraine.[1] In addition to pharmacotherapy, migraine treatment includes regular review for red flags and triggers, education, lifestyle changes and treatment of comorbidities. Yellow flags include increased medication use, life stressors, family history of addiction and poor self-image.

Ms FM's history suggests she has medication-overuse headache (MOH). This is common with all opioids, particularly codeine; and the use of tranquillisers, the presence of anxiety and depression, smoking and inactivity increase the risk of developing MOH.[2] Opioid use can worsen migraines.

This case highlights how medication use easily escalates. Ms FM's oxycodone use increased fourfold. The trap for the busy GP is the patient who keeps reassuring you that their medication is providing relief but is gradually increasing the dosage over time. Ms FM's use of oxycodone has significantly increased, whether for symptom relief, as a coping mechanism or from opioid dependence. Increased pain medication use is seen in anxious patients; education and cognitive therapy are more effective than antidepressants for anxiety associated with pain. Supplementation with OTC combination codeine preparations hasn't been excluded in this case. Patients often supplement their prescribed regimen with OTC medications, which are incorrectly perceived as being harmless.

Diversion is not excluded in this case but is difficult to prove and often conjecture. It may be occurring and again be perceived as harmless, with either good or not-so-good intentions. Giving prescribed medications to a friend or family member or sharing medications is common; diversion for financial gain less common. Ms FM may be giving her medications to her father if he is suffering from untreated pain.

The case identifies a personal and family history of addiction, medication overuse and substance dependence. Addiction is a disease of the brain. It is neurobiological and chronic.[3] It is characterised by impaired control, compulsive use, craving and continued use despite harm. The drug controls the person's life. Dependence is not addiction and can be physical and/or psychological. A person with drug dependence will continue to use a medication and may be physically and emotionally reliant on it. Their level of use may escalate over time, but they do not crave or misuse the medication. It is important to distinguish between dependence and addiction; the former can be managed in general practice whereas the latter requires the care of an addiction specialist.

Ms FM has a high risk of opioid misuse. Her Opioid Risk Tool (ORT) score is 13/16, the threshold for concern being 8/16. The ORT is a quick clinical assessment tool that takes only a few minutes to administer.[4] It assesses personal and family history of addiction and psychosocial aspects that predict risk of opioid misuse. It is available on the NSW Government's NSW Agency for Clinical Innovation (ACI) chronic pain website (http://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0016/212911/Opioid_Risk_Assessment_Tool.pdf).[5] Misuse of opioids hasn't been excluded and is difficult to assess and more often hearsay than proven.

Ms FM's use may be psychosocial. Is she using medications and nicotine to cope with emotional stress? She is worried about her weight. She is caring for her father and may be his sole carer and be feeling isolated, stressed and overwhelmed. There is likely financial stress. Her story suggests discomfort with her sexuality and she has never been in a long-term relationship. She is likely to be lonely and feeling unsupported. Her mother died of APC overuse and Ms FM may be worrying about dying and addiction.

Ms FM is a heavy smoker. We do not know if this is addiction, a coping mechanism for the emotional stress or her way of keeping her weight down.

Treatment plan

Address red flags

If the headache has worrying clinical features, order appropriate investigations and refer the patient if you are concerned.

Consider referral back to a neurologist. There are new treatments for migraine and these could help with the opioid weaning. There are in-hospital treatments for migraine with MOH, but access to treatment is restrictive.[6] Hospital detoxification is another option, although access is very difficult. Respite care will be needed for her father before Ms FM could be admitted for therapy.

Exclude medication misuse

To exclude medication misuse ask the patient for consent to speak with the local pharmacists, who can provide dispensing histories and OTC medication use, and contact the Prescription Shopping Program (1800 631 181) and the state or territory Pharmaceutical Services Branch, or equivalent.

Use a psychosocial, educational and biomedical approach during consultations

Use of a psychosocial, educational and biomedical approach during consultations will therapeutically engage the patient through the difficult process of weaning the oxycodone (and benzodiazepine). Express your concerns about the medication use and the risks it poses and explain how you would like to help Ms FM wean the oxycodone.

A simple practical step towards addressing Ms FM's opioid use is the 'Quick Steps to Manage Chronic Pain in Primary Care' tool found on the ACI chronic pain website (http://www.aci.health.nsw.gov.au/chronic-pain/health-professionals/quick-steps-to-manage-chronic-pain-in-primary-care).[7] It is quick and easy to use, providing structured pain assessment and treatment planning.

The ORT is a helpful educational tool, as well as an assessment tool. Ideally administered before the first opioid or benzodiazepine is prescribed, it is equally useful as an educational tool for cognitive therapy and before a weaning regimen is introduced.

Explain the weaning process

In Ms FM's case, a 10% reduction in dose per fortnight or monthly should be a comfortable compromise. I would suggest weaning is started even if the patient is waiting for a neurologist's review. If weaning proves difficult, contact or refer the patient to your local pain specialist. Pain specialists will often agree to a shared-care arrangement. Use staged supply (controlled dispensing) if there are worries about compliance. Involve the pharmacist and share care with them. They are a 'second set of eyes' and will inform you if they have concerns.

Introduce pain education

An easy way to introduce pain education is to use the videos on the ACI Pain Management website (http://www.aci.health.nsw.gov.au/chronic-pain).[8] Ask the patient to view each video and then follow up with a consultation to discuss their understanding of the content and messages. Patients may find reading one or several of the books listed on the website helpful. Use individual chapters to discuss, educate and counsel on specific issues. Education, cognitive therapy and nonpharmacological strategies provide the best chance of successfully weaning established opioid use in patients.

Address the benzodiazepine use

In the same way that you tackle opioid use, explain your concerns about long-term use of benzodiazepines and present a plan that includes weaning, education, cognitive therapy and support. Weaning benzodiazepines takes longer, so perhaps start this process later after the opioid has been weaned. Weaning two drugs at the same time is difficult, with poor outcomes. Again, addiction specialist assistance may be required.

Address psychosocial issues

Explain to Ms FM that you would like to help her address the psychosocial issues. Set up a care plan that includes a clinical psychologist, dietician, social worker and Aged Care Assessment Team. Broach her smoking and explain that you would like to address this later. It is important but less urgent.

Make regular long appointments

Ms FM needs regularly booked long appointments. It is always better if the patient is managed by one GP. At each consultation, educate and counsel the patient and address their issues. This will assist the weaning. Care will be easier once a trusted therapeutic relationship is established, at which time the more difficult confronting areas of misuse, diversion and addiction if present can be addressed. There may be hurdles along the way and it may take months but the long-term benefits are worthwhile. **PMT**

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