Lessons from practice

Poppy seed tea dependence requiring depot buprenorphine treatment

Clinical record

A 34-year-old man presented seeking treatment for opioid use disorder in Melbourne, Australia. He lived in shared rental accommodation and worked full-time in a night-shift role.

He described a 10-year history of opioid use disorder, initially heroin, then episodic use of non-prescribed pharmaceutical opioids (oxycodone and codeine). For the past 5 years, he reported sole use of poppy seed tea. He transferred from pharmaceutical opioids owing to the legal status, ease of access and low cost of poppy seed tea. He spent $10–15 daily on 1–2 kg of poppy seeds, which he brewed into a tea and mixed with 1.5 L of fluid (usually citrus juice).

He described significant difficulties achieving abstinence owing to long-lasting and severe withdrawal symptoms, with nausea, vomiting and myalgia starting 24 hours after use and lasting for 3 weeks. He had previously attended residential detoxification programs four times but had relapsed shortly after discharge. He had never previously been offered opioid agonist medication treatment.

He used cannabis occasionally, did not drink alcohol or smoke cigarettes, and used no other substances. He had no medical history of relevance and was hepatitis C-negative. A urine drug screen on initial assessment tested positive for opiates, with gas chromatography and mass spectrometry confirming morphine and codeine as metabolites, consistent with consumption of poppy seeds.

He was prescribed sublingual buprenorphine using a standard outpatient protocol,[1] commencing on 4 mg on day 1 and increasing to 8 mg on days 2–4. On review on day 4 of induction, he presented with moderate withdrawal (clinical opiate withdrawal scale [COWS] score, 13).[2] He was prescribed 12 mg of buprenorphine and reviewed one week later, when he reported no further withdrawal symptoms (COWS score, 0). He continued on 12 mg for the next month but reported frequent cravings. His dose was increased to 16 mg daily and he remained clinically stable for the next 6 months. Urine drug screens were performed every 2–4 weeks over this period and confirmed abstinence from opioids.

Despite sustained recovery, he described difficulty engaging in work because of the requirement to regularly attend a community pharmacy for supervised medication dosing. He was commenced on a monthly 96 mg depot buprenorphine subcutaneous injection. After one month, he reported no complications or adverse effects and no cravings. On assessment, he presented with no withdrawal symptoms (COWS score, 0) and a urine drug screen confirmed no opioid use.

He reported the transfer to depot buprenorphine as having had a positive impact on his quality of life, as well as management of cravings and use. Aside from convenience, the monthly injection meant "I don't have any reminders of dosing. Not having to go to the pharmacy has been great, the stigma of being in the pharmacy and getting the dose, that's gone". At the time of writing, he remained clinically stable on depot buprenorphine for over one year, and was able to engage in work and relationships. He planned a gradual taper in his dose over the next 6–12 months.

Discussion

We report the first published case of long-acting injectable buprenorphine used in the management of an individual with poppy seed tea dependence. The seeds of the opium poppy plant (*Papaver somniferum L.*) contain opiate alkaloids — primarily morphine and codeine, but also lower concentrations of thebaine, noscapine and papaverine[3] — which can be extracted to produce a tea that has sufficient opioid content to cause regular users to develop an opioid use disorder.

In Australia and internationally, unwashed poppy seeds can be purchased without any legal restrictions in large quantities online or in food stores, which means that the dangers of dependence and related harms can be underestimated. The prevalence of poppy seed tea consumption is difficult to estimate. A New Zealand study of individuals accessing detoxification treatment found that as many as 46% reported a history of poppy seed consumption.[4] Although occasional use appears common, daily or dependent use — particularly as the primary drug of concern and sole opioid — is more unusual. Nevertheless, an Australian case series reported dependent use requiring moderate to high dose opioid agonist treatment.[5] A recent United States case report highlighted that opioid agonist treatment was not routinely offered for individuals presenting to treatment services with poppy seed tea consumption, potentially because of lower perceived dependence severity and treatment needs.[6]

This case study highlights the nature of poppy seed tea dependence, and the benefits achieved through opioid agonist treatment. Routine screening for use of poppy seeds in treatment settings may help provide clinicians with a more accurate picture of opioid use and treatment need.

Lessons from practice

- Poppy seed tea is a source of opioids, and when consumed regularly, can result in opioid use disorder.
- The prevalence of poppy seed tea dependence is unknown.
- People with poppy seed tea dependence may require moderate to high doses of opioid agonist medication treatment, including consideration of eligibility for long-acting injectable buprenorphine treatment.

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