

Chronic Noncancer Pain and Opioid Addiction: Diagnostic and Management Challenges

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Abstract

Chronic pain is associated with higher rates of psychiatric comorbidity, including substance use disorders. Patients with chronic pain often require opioids for their pain relief. Often, clinicians are reluctant to prescribe opioids to patients with chronic pain due to fear of patients becoming dependent on opioids. Diagnosing opioid addiction in chronic pain with comorbid prescription opioid use is challenging, as some of the symptoms of addiction overlap with those of physical dependence. A 28-year-old female presented with a history of recurrent abdominal pain beginning at the age of 16 years. The patient was diagnosed with chronic pancreatitis and was prescribed tramadol orally or injections for pain. The patient started experiencing craving with repeated administration of tramadol. She started using it daily and increased her dose to about 6–7 ampoules per day. She also developed complications due to injections. She was not able to work due to her pain, as well as injection use. She would go to multiple chemist shops for getting herself injected with tramadol injections. She also developed depressive symptoms in this period. Due to abdominal pain, the patient was admitted in the gastroenterology ward, from where she was shifted to the psychiatry ward for the management of opioid misuse and depressive symptoms. The patient was diagnosed to be suffering from opioid dependence syndrome with depressive episodes, for which she was provided tablet buprenorphine 14 mg/day dose along with tablet sertraline 150 mg/day. The case demonstrates several challenges in the diagnosis and management of opioid dependence and chronic pain when they occur simultaneously.

Keywords: Chronic-noncancer-pain, opioid dependence, physical dependence

INTRODUCTION

Chronic pain is defined as pain that either persists for or recurs for longer than 3 months.^[1,2] Pain is one of the most prominent causes of years lived with disability and is associated with poor quality of life.^[3] Chronic pain is also associated with higher rates of psychiatric comorbidity, including substance use disorders.^[4] Patients with chronic pain often require opioids for their pain relief. Often, clinicians are reluctant to prescribe opioids to patients with chronic pain due to fear of patients becoming dependent on opioids. At times, this reluctance leads to underdosing with opioids, and results in partial improvement in pain, leading to dissatisfaction among patients.^[5] This dilemma further deepens when a patient with chronic pain develops an addiction to the prescribed opioids. Diagnosing addiction in such cases is also challenging, as some of the symptoms of addiction overlap with those of physical dependence. The case presented below highlights some of the challenges one faces in the diagnosis and management of a patient with chronic pain who developed

dependence to the opioid prescribed for the management of pain.

CASE REPORT

A 28-year-old married female educated up to Grade 12, belonging to the Hindu nuclear family of middle socioeconomic status, presented with a history of recurrent abdominal pain beginning at the age of 16 years. The abdominal pain was severe in nature originating in the epigastrium and left hypochondrium, further radiating to back and associated with vomiting. The pain used to get aggravated on the consumption of food for around 2 h, and relieved on bending forwards. The pain was episodic in nature, with each episode occurring once in 2–3 months and lasting for

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3–4 days at a time. The patient was diagnosed to have chronic pancreatitis by a gastroenterology specialist and was prescribed pancreatic enzymes three times daily, along with tramadol 50 mg orally or injection as and when required for severe pain. The patient used to take Tramadol 50 mg orally or intravenously once in 2–3 months during episodes of severe pain. Around 2011, the patient underwent lateral pancreaticojejunostomy and was completely pain free following surgery for the next 2 years. Thereafter, in 2013, she again started to have similar pain as before and was given similar treatment (injection tramadol SOS for severe pain), which she would take once in 2–3 months. Two years later, the patient developed intermittent low mood, which gradually increased to persistent pervasive sadness of mood along with other depressive symptoms of moderate severity.

In 2017, when she had been again given injection tramadol intravenously for pain relief, the patient also experienced improvement in her mood and felt a sense of relaxation, which she liked. She continued getting herself injected with tramadol for pain relief daily for the next 1 week. However, after 1 week of continuous injection, the patient started to develop an intense desire to experience the relaxing effects of tramadol. Hence, she started to complain of pain (despite not having pain) to her family and got herself injected with tramadol daily. She started using one ampoule daily initially; however, she increased the dose gradually to 6–7 ampoules per day for 10 months, as she would not have the same effects with the previous dose. On days when she could not take the injection, she developed withdrawals in the form of severe anxiety, body ache, restlessness, lacrimation, and irritability, which used to get relieved only after taking the injection tramadol. She started to have repeated thoughts about when and where she can go and get herself injected again and started to neglect her household responsibilities, because of which her children had to shoulder the burden of household chores. She used to get herself injected always the help of trained persons such as doctors or chemists. She used to go to different medical shops in a single day itself to get injected and would spend even up to 1 h waiting and convincing the local chemist or doctor to inject her under the plea of having severe abdominal pain. She developed scarring of veins, extravasation of injection leading to swelling, and seizures two to three times, despite which she continued to use the injections. She would be remorseful for her injection use behavior and think of stopping multiple times; however, she would not be able to control the use of injection tramadol.

The patient's depressive symptoms also persisted in the same intensity in this period. She also started to report of persistent abdominal pain daily, following which she was admitted to the gastroenterology department at the authors' institution. The patient continued to ask for tramadol injections in the gastroenterology ward and reported of depressive symptoms to the treating team, following which the patient was referred to the psychiatry department. In view of comorbid depressive symptoms and daily tramadol use, the patient was shifted to the psychiatry ward for further assessment and management.

THE DIAGNOSTIC CONUNDRUM – ADDICTION OR PHYSICAL DEPENDENCE?

In general, patients with comorbid chronic pain and misuse of prescribed opioids present a diagnostic challenge. On the face of it, the patient had opioid-related tolerance, withdrawals, and craving, which can point to a diagnosis of opioid dependence syndrome (ODS) (as per the International Classification of Diseases, [ICD]-10 criteria). However, it should be remembered here that daily use of prescribed opioids for a long-term can itself lead to physical dependence in the form of tolerance and withdrawal, due to the pharmacological property of the drug.^[6,7] Similarly, patients who have not been given adequate pain relief may demand for more opioids, which might be mistaken to be “drug-seeking behavior” by the patient (“pseudoaddiction”).^[8,9] Patients might also have a strong desire to take the drug to have a relief in withdrawal symptoms, which can be considered as “craving,” though the patient may not be “addicted” to opioids.^[10] In such a situation, it becomes difficult to assess whether the patient has only physical dependence or “addiction” to opioids. Some studies show that neither the ICD-10 or Diagnostic and Statistical Manual of Mental Disorders (DSM)-IV criteria are appropriate to diagnose “addiction” in chronic patients who are prescribed opioids for pain relief.^[11] Similarly, the criteria laid down in DSM-5 for diagnosing opioid use disorder may not always apply to chronic pain who are on prescribed opioids.^[12]

A consensus document from the American Academy of Pain Medicine, the American Pain Society, and the American Society of Addiction Medicine specialists have listed impaired control over drug use, compulsive use, continued use despite harm, and craving as addiction criteria.^[13] The present case had all these factors – inability to reduce or stop her use even when she wanted to, continued use despite complications in the form of vein complications and seizures. She neglected her household responsibilities and spent a large amount of time in procuring and injecting the drug. She had a craving for the “high” obtained after injecting tramadol, because of which she used to take tramadol even on days when she did not have pain. These symptoms helped us in making a diagnosis of “ODS” in the patient. Literature also mentioned other patient-related behaviors (aberrant drug-related behaviors) such as frequent loss or report of theft of opioid medication, stealing or borrowing drugs, and forging prescriptions as indicative of opioid misuse in a patient with chronic pain.^[14,15] In our case, these behaviors were not exhibited or indeed required, as the patient was able to access her opioid of choice (tramadol) relatively easily at the neighborhood pharmacist shops or registered medical practitioners.

MANAGEMENT-RELATED CHALLENGES

Management of opioid dependence syndrome

The patient also posed challenges related to management. The first challenge was to manage ODS or opioid addiction. The strategies followed in cases of ODS not complicated by

the presence of chronic pain include management of acute withdrawals alone, long-term opioid antagonist maintenance, or long-term opioid agonist maintenance treatment (OAMT). Of these, evidence overwhelmingly favors OAMT over the other two strategies, and consequently, most guidelines advocate the use of OAMT (also called opioid substitution therapy), unless otherwise indicated.^[16]

The management of ODS in those with chronic noncancer pain poses a challenge for clinicians. Complete avoidance of opioids due to fear of addiction can lead to undertreatment of pain, leading to significant distress and reduced quality of life for patients. At the same time, the use of opioids without due diligence can lead to addiction in vulnerable patients. Indeed, it is a double-edged sword. There is limited literature or guidelines for the management of opioid dependence with comorbid pain.^[17] The available literature, however, indicates the effectiveness of OAMT in managing both opioid dependence and pain. Of the two most commonly used medications (buprenorphine and methadone), guidelines and literature usually prefer buprenorphine for the treatment of opioid dependence with comorbid chronic noncancer pain due to its better safety profile including lesser chances of overdose and other adverse events such as corrected QT prolongation or respiratory depression compared to methadone, the other OAMT medicine.^[18] In our case, we used buprenorphine as OAMT starting with 4 mg/day and gradually increased in dose to 14 mg/day. With this, the patient did not experience any opioid withdrawals, while opioid craving was present only intermittently. The dose of buprenorphine was increased to 16 mg/day; however, the patient developed urinary retention at this dose, due to which the dose was lowered to 14 mg/day. Opioid craving was managed by nonpharmacological therapies.

Management of comorbid psychiatric illnesses

Detailed assessment for psychiatric illnesses was carried out after admission in the psychiatric ward. It was noted that the patient also fulfilled the criteria of emotionally unstable personality disorder. The patient also suffered from emotional neglect in childhood along with physical abuse by her stepmother in childhood. The patient's father also had a problem with alcohol use. There were significant interpersonal problems between the patient and her husband, not only due to the patient's illnesses but also due to her husband's daily alcohol use. The management of such cases poses additional challenges as every disorder potentially affects the course and outcome of the other. Studies have also found that the presence of such factors can increase the likelihood of a patient misusing opioids when given for chronic pain relief. The factors identified in most literature include concomitant psychiatric illnesses such as depression or anxiety disorders, history of substance use disorder, social instability, younger age, family history of substance use disorder, and history of sexual abuse.^[19,20] Our patient had most of these risk factors, which could have led her to misuse the prescribed opioid and develop opioid addiction.

The patient's depressive episode was managed with tablet sertraline in dose of up to 150 mg daily. Joint sessions were taken with the patient and her husband to address interpersonal issues, and the husband was offered to seek help for his alcohol use problem. Emotionally Unstable Personality Disorder was addressed through nonpharmacological strategies along with the use of tablet aripiprazole 15 mg/day.

Management of chronic pain

The presence of continued pain in a patient with opioid dependence or while on treatment with OAMT medicines leads to both diagnostic and management challenges. There is a degree of mistrust among clinicians when a patient with opioid dependence reports pain and requests for increase in dose of opioids.^[21,22] There is a tendency to ascribe complaints of pain to an attempt to increase the dose of opioids received. In our case, the patient's generalized body pain subsided on starting buprenorphine. The pancreatic pain also reduced but did not subside completely. Ultrasound of the whole abdomen showed multiple calcific foci in the body, head, and tail of the pancreas with prominent pancreatic duct (2.6 mm). Pain charting showed a baseline pain severity of 40/100 on Visual Analog Score (VAS), with exacerbation in pain severity after meals to 80/100 on VAS for around 2–3 h. Pancreatic enzymes were increased to six tablets per day, with which there was initial improvement by around 20% for the initial 2 days, but again pain got aggravated. Patient's craving for opioids also would increase during the episodes of severe pain. The vitals charting showed an increase in systolic blood pressure (BP) by 20 mm Hg from baseline and increase in pulse rate by around 20 beats/min from the baseline, during the episodes of severe pain. However, such increase in BP and pulse rate can also occur during craving. Hence, a consultation from the pain clinic was sought. A diagnostic, temporary local celiac plexus block was performed, with which there was a significant improvement in pain by around 90% and improvement in craving for about a week. The local celiac plexus block was repeated after a week with which there was 90% improvement in pain once again. The patient was also given tablet gabapentin in doses of 900 mg/day for pain. With all these measures, there was a persistent decrease in pain to around 10–20/100 VAS.

At the time of discharge, the patient was euthymic, her craving for opioids had reduced to 40/100 on VAS, and her pain had reduced to 20/100 on VAS.

CONCLUSION

The diagnosis and management of patients with comorbid opioid dependence and chronic noncancer pain is a challenge, which requires multidisciplinary treatment and collaboration with various departments. The challenge is for both the addiction treatment as well as pain management specialists. This case aptly illustrates this diagnostic and management challenges. There is a need for further research on the best ways to approach and manage such cases in a multidisciplinary setting.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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