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(CASE REPORT)

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Tramadol Use disorder following menstrual pain and successfully managed with methadone: A case report from Tanzania

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Abstract

Tramadol is a centrally acting analgesic which is easily available and widely prescribed for pain hence subjected for misuse, dependence and addiction. This case report presents a 32-year-old Tanzanian female who developed tramadol use disorder following prolonged self-medication for primary dysmenorrhea over past 12 years. She progressed from intermittent use to daily dependence on high doses of tramadol, culminating in significant socio-occupational dysfunction. She was successfully managed with methadone maintenance therapy, highlighting the need for awareness, early intervention, and access to opioid substitution therapy.

Keywords: Tramadol; Use Disorder; Menstrual Pain; Methadone

1. Introduction

Tramadol is a synthetic centrally acting atypical analgesic used to treat moderate to severe pain. The mechanism of inhibition of pain by tramadol is believed to be mediated by combination of norepinephrine and serotonin reuptake inhibition and μ-opioid agonist [1]. The major active metabolite of tramadol, o-desmethyltramadol (M1 metabolite) has an agonistic effect at the μ-opioid receptor, but with a higher affinity than tramadol itself [2]. This drug is among medications which is easily available and widely prescribed for pain subjected for misuse, dependence, and addiction [3].

The evidence from the literature concerning the liability of use disorder for tramadol reports that compared with non-steroidal anti-inflammatory drugs (NSAIDs), there is no added risks of abusing this drug by the patients [4]. Globally concerns are currently rising about the risk of developing tramadol use disorder for people who use tramadol despite the evidence from extensive preclinical, clinical, post marketing and epidemiological studies indicate relatively low risk of developing use disorder/dependence [5]. Although tramadol is an opioid drug, it is not a controlled substance in many countries and is available off the shelf [6]. Tramadol was first marketed in the 1970s[3]. After its initial medical use, several studies have highlighted tramadol's abuse liability, potential for diversion, and association with the development of use disorder [4], [7].

In Tanzania, tramadol is frequently available over-the counter because of the laxity in drug regulation implementation [8]. However, there is no published case report of tramadol use disorder in Tanzania. Here we present a case report of a patient with tramadol use disorder who sought treatment at our center for opioid dependence to highlight tramadol's potential for misuse and dependence when used inappropriately for conditions like menstrual pain that can often be effectively managed with NSAIDs.

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2. Case Presentation

A 32 years old female self-referred to our clinic with history of tramadol use for 12 years. The initial use of tramadol started after being prescribed by the doctor of the nearby health facility to cure her longstanding menstrual pain after prolonged use of ordinary pain killers (Diclofenac and meloxicam). She was given injection tramadol and getting significant relief in her pain and she also found the medicine to have some euphoric effect. After being comfortable with the medicine she started taking it on her own few days prior to onset of menstruation and during menstruation however trivial, gradually she increased in frequency and amount over the next five years to present level of injecting two ampoules(200mg) and two tablets of 50mg daily. She would consume these tablets in stereotyped manner and whenever there was delay in consumption she would start having extreme fatigue, yawning, sleep disturbances, body ache and diarrhea. She would wake up at mid-night and have a strong urge to consume that medicine and would eventually do so to feel better. During this time was not able to engage in any productive activities and had conflicts with her relatives because of improper use of money. She deny a history of using other substances. She also report no history of convulsion, no mood disturbances, and no perceptual disturbances or fix false beliefs. The review of other systems was insignificant.

She has normal findings on general examination except for digital tremors and diaphoresis. On mental state examination she has anxious affect with normal mood, other parameters were essentially normal.

Urinary drug screen with urinary drug strip showed tramadol metabolite, other biochemical and relevant hematological parameters were within normal limit.

The diagnosis of tramadol use disorder by using Diagnostic and Statistical Manual for mental disorder version five (DSM-V) was reached.

The patient started tramadol detoxification with methadone syrup as an outpatient at our opioid treatment Centre. Monitoring of the patients were done by using opioid withdrawal scale and urine drug strip.

2.1. Treatment Outcome

Currently the patient has regained her socio-occupational functioning after being kept on methadone maintenance treatment. The progress of the patient were summarized in the table below (Table 01).

Table 1 Progress and Treatment Outcome

Duration	Signs/Symptoms	Treatment
1 to weeks	Sleep disturbance, general body weakness, abdominal pain, yawning, muscle pain	Syrup methadone 30mg od
2 to 4 weeks	Yawning	Syrup methadone 40mg od
> 4 weeks	No Signs/symptoms	Syrup methadone 40mg od

3. Discussion

This case illustrates how a medically indicated use of tramadol can lead to long-term dependence, especially when pain management is not adequately supervised. Our patient presented with physical symptoms and deterioration in socio-occupational functioning in the background of long-term use of tramadol tablets and injection. The history of the patient and clinical presentation are suggestive of tramadol use disorder according to DSM-V. The signs and symptoms of withdrawals as reported by the patient and later observed by us were typical of an opioid [9]. The general profile and escalation dose of consumed tramadol was indicative of tolerance to the opioid. This effect can be attributed by tramadol and its metabolites. The patient was detoxified and maintained on methadone syrup. The use of methadone to treat tramadol use disorder is supported by evidence from the literatures[9]. She is currently maintained with take away dose of methadone at our opioid treatment Centre. Despite tramadol having propensity of leading to use disorder, it is used in the community without being given the appropriate label of schedule of drugs [6]. This is an alarm to us of the possibility to increase chances of tramadol use disorders due to its availability at the over the counter while there is no restriction from the medico-legal side[8].

Tramadol has the potential for use disorder due to its action on opioid receptors. The rampant use of tramadol in medical practices increase the possibility of tramadol use disorder in medical professionals[10]. Medical practitioners should be cautious on the possibility of tramadol use disorder and should prescribe it with care. Proper education should be provided to every patient prescribed with tramadol about the risk of use disorder. Hospital should make follow up for its patients who use tramadol in order to explore frequency of use disorder and nature of morbidity. For the patient with difficult follow up and having risk of use disorder it is better to avoid the use tramadol to treat chronic pain NSAIDs should be used instead.

4. Conclusion

This case report adds knowledge to the ongoing concern about tramadol use disorder. It also describes the successful use of methadone to treat the patient with tramadol use disorder. The findings from this case report reminds clinicians about the need for caution before prescribing tramadol to patients, especially those who have opioid use disorder, and to inform the drug regulatory authorities of such occurrences, for proper scheduling and warnings issuing.

Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

The ethical approval for this case report was granted by Tumbi Regional Referral Hospital (TRRH).

Statement of informed consent

The written informed consent was obtained from the patient for case reporting and anonymous publication.

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