Tapentadol: An Opioid of Abuse Acquired Online

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Tapentadol is an opioid whose use is on the rise, with unique mechanisms of action that target the μ-opioid receptor and inhibit norepinephrine reuptake.[1] Research has supported its role as a versatile player in the management of pain, and its abuse potential has been reported as low.[2] However, given increased scrutiny of more well-known opiates and tapentadol's superior withdrawal profile and online accessibility, the medical community should be aware of its characteristics and prevalence, particularly in patients acquiring opioids online.

Case Report

A 31-year-old deaf white man with a history of depression, anxiety, and opioid use disorder presented to the addiction clinic for treatment of withdrawal symptoms related to his 11-year history of opioid abuse. Current withdrawal symptoms included increased anxiousness; insomnia; body pain; gastrointestinal upset including nausea, vomiting, and diarrhea; and general malaise. He reported a last opiate use of 1 week ago. His first opiate exposure was at age 20 years following an anterior cruciate ligament reconstruction, followed by a jaw surgery later that year. He stated that oxycodone and hydrocodone were initially prescribed. Afterward, he attempted to maintain his habit by obtaining opiates online, which was largely motivated by his hearing impairment. He found it possible to acquire tramadol through websites based in Great Britain, Russia, and India and continued to use the drug as his primary opioid for approximately 4 years.

Over the last 6 months, he found increases in online tramadol prices to be unaffordable and began using tapentadol at the suggestion of an opioid-purchasing website representative. Early in the course of his tapentadol abuse, he noted its efficacy was comparable to oxycodone, with decreased withdrawal symptoms when he ran out.

The patient was started on medication-assisted treatment with buprenorphine-naloxone 8 mg; the dose was later increased to 16 mg. The patient tolerated this treatment well, reporting resolution of his withdrawal symptoms and cravings.

Discussion

Tapentadol is a centrally acting analgesic that received US Food and Drug Administration approval in 2011 for treatment of moderate to severe pain in those ≥18 years. It is a new class of pain medication that exerts its action by agonist properties at the μ-opioid receptor and inhibition of norepinephrine reuptake.[2] Tapentadol's indications have been expanded in the United States to include diabetic neuropathy, with broad use as an analgesic for osteoarthritis, chronic pancreatitis, low back pain, and cancer pain supported by clinical trials.[3–6] Its safety and tolerance profile is considered favorable, with long-term administration examined up to 2 years.[7,8] Tapentadol pharmacokinetics include a half-life of approximately 4 hours and 5–6 hours for its immediate-release (IR) and extended-release (ER) formulations, respectively. Metabolism occurs via phase II glucuronidation, and no significant cytochrome P450 contributions or polymorphisms have been described, minimizing concerns for drug interactions. Excretion is renal, with a recommended daily dose of 50–100 mg and a maximum dose set at 600–700 mg.[9]

Concerning its place in the recreational opioid market, tapentadol is reported to be of minimal interest among those who abuse narcotics, with comparable abuse potential to tramadol.[10,11] Nonetheless, physician prescribing practices for tapentadol are on the rise, which could lead to wider availability in nonmedical circles. Given its lower street price and availability online, as noted by our patient and Dart and colleagues,[12] it is possible that tapentadol could soon contribute to the opioid crisis. Despite reports[7,8] of tapentadol's low abuse potential and inferior pleasure profile, its wide applications for pain management, superior withdrawal profile, and presence on nonmedical purchasing websites behoove physicians to become familiar with its place at the table in the ongoing opioid crisis. This hearing-impaired patient's practice of online tapentadol acquisition raises concerns for a possible increase in its future use among patients with opioid use disorder, particularly among those less likely to acquire medications through in-person purchasing on the street or via doctor shopping.

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