

Misuse of Pregabalin: An Emerging Public Health Concern in Neuropathic Pain Management

Faiza Hassan* and Maria Liaquat

Institute of Physiology and Pharmacology Faculty of Veterinary Science, University of Agriculture Faisalabad

*Corresponding Author: faiza.hassan@uaf.edu.pk

ABSTRACT

Neuropathic pain is a persistent disease that arises due to the malformation or impairment of the nervous system and in most cases, it is necessary to treat it with specific pharmacological interventions. Pregabalin is extensively applicable in the treatment of neuropathic pain, epilepsy, Fibromyalgia, and Generalized Anxiety Disorder through the suppression of abnormal nerve functioning. Regardless of the therapeutic value, misuse of pregabalin has become an increasingly popular public health problem. Others overdose on drugs recommended in order to obtain the effects of sedation or euphoria causing dependency and addiction. The drug is contraindicated with other central nervous system depressants like opioids or alcohol since this induces the risk of respiratory depression and overdose. In such countries as Pakistan, the lack of difficulty in obtaining drugs and the inability to track prescriptions make the non-medical usage go up, and stricter control and education are required.

Keywords: Neuropathic pain, Public Health, Pregabalin

To cite this article: Hassan F & M Liaquat. Misuse of Pregabalin: An Emerging Public Health Concern in Neuropathic Pain Management. *Biological Times*. 2026. May 5(5): 1.

Introduction

Neuropathic pain is a long-term and, in most cases, debilitating symptom resulting because of injury or impairment of the nervous system. Neuropathic pain is different as compared to normal pain that is caused by injury or inflammation; the cause of this condition is anomalies in the nerve signaling pathways. The patients with this condition complain of burning, tingling, numbness or shooting pain which might have a devastating impact on the quality of life experienced by patients. In order to treat such conditions, doctors regularly prescribe drugs that inhibit nerve activities. Pregabalin is one of the most popular medications that are used to treat this issue. Pregabalin has become the most popular in terms of its application in the treatment of neuropathic pain and various neurological disorders. But within recent years, the abuse of pregabalin as a narcotic or recreational drug has increasingly become a health concern to professionals of healthcare around the globe [1].

Pharmacological Characteristics of Pregabalin

Pregabalin is an anticonvulsant and pain reliever drug which acts by attaching to calcium channels within the central nervous system. This will decrease the leakage of neurotransmitters that carry the pain signals. Pregabalin is known to decrease the perception of pain and the comfort of a patient by inhibiting hyper-reactive nerve cells. Pregabalin is used clinically in a wide range of disorders such as diabetic neuropathy, post-herpetic neuralgia, fibromyalgia, epilepsy and generalized anxiety disorder. It has proven itself as a useful pain treatment method owing to its efficacy and relatively quick action duration [2].

Clinical Significance of Neuropathic Pain

Neuropathic pain may be very incurable with the traditional painkillers that include non-steroidal anti-inflammatory drugs. Thus, drugs such as pregabalin are important in the management of nerve pains. It is acknowledged that in the right dosage and medical attention, the use of pregabalin can greatly decrease the intensity of pain, increase the quality of sleep and make the overall patient experience more comfortable. Pregabalin brings about prolonged relief to many patients with chronic nerve damages and enables them to do their daily activities more comfortably. This renders it to be a mandatory drug in the contemporary clinical setup [3].

Increasing Misuse and Recreational Use

In spite of its medical significance, Pregabalin is a drug that has been abused more often by people who desire the psychoactive properties of the medication. The drug can also cause a feeling of relaxation, mild euphoria or even sedation when used in doses exceeding the prescribed dose. The effects have caused a certain portion of people to use pregabalin recreationally. The situation is even worse when there is a combination of the use of the pregabalin with other substances, including opioids, alcohol, or sedatives. These combinations increase the depressant effects of the drug on the central nervous system to a significant extent that makes the drug addiction and overdose highly risky [4].

Health Hazards and Side Effects

Pregabalin when abused can cause diverse health effects. The side effects are common such as dizziness, drowsiness, blurred vision, poor coordination, and confusion. In extreme cases, large doses can cause

breathing problems, unconsciousness and fatal complications. Tolerance and dependence may also result because of long-term abuse. People who develop an addiction to pregabalin could develop some withdrawal symptoms, which manifest as anxiety, insomnia, sweating, nausea, and irritability when they stop using the medication.

Regulatory and Public Health Concerns

Pregabalin abuse has become an emerging issue in the consciousness of many nations. The supply of some drugs in areas like Pakistan without close check on prescription has also led to their use in non-medical ways. The healthcare authorities are putting pressure on the necessity of the more stringent regulations, prescription follow-up programs, and awareness campaigns among people. Such controls are necessary to deter the abuse of drugs that are meant to treat patients with appropriate goals.

Role of Healthcare Professionals

The professionals associated with healthcare are very instrumental in the management of the abuse of pregabalin. Doctors should be keen to prescribe the drug to the patient and take into account his or her history, especially regarding drug abuse. There should also be correct dosage; the patients also need to be educated properly to use it safely. Pharmacists also play a role of dispensing pregabalin when the prescription (valid) is scribed, and should also be able to advise their patients about the risks associated with it. The integration of doctors, pharmacists and healthcare authorities can be used in reducing cases of drug abuse.

Public Awareness and Patient Education

Education of the masses on the safe use of drugs is one of the methods of avoiding drug abuse. Patients must realize that pregabalin is not a narcotic drug meant to be used recreationally but rather a medical treatment drug that is meant to treat certain medical conditions. The consciousness-raising activities, community education, and medical counseling can be used to enlighten individuals on the risks of abusing drugs and how to use drugs responsibly.

Conclusion

Pregabalin has continued to be a significant neuropathic pain medication and a useful therapy in a number of neurological conditions. Nevertheless, its growing abuse as a narcotic drug is very dangerous to health and social issues. Pregabalin should be regulated and prescribed responsibly and through education of the people so that it can still perform its therapeutic role without causing too much abuse. By involving healthcare workers, regulators, and community, one can resolve this increased issue and encourage the effective and safe use of drugs.

References

- [1] Kumar Sharma K, Fatima N, Ali Z, Moshin M, Chandra P, Verma A, Goshain O, Kumar G. Neuropathy, its profile and experimental nerve injury neuropathic pain models: a review. *Current pharmaceutical design*. 2023 Nov 1;29(42):3343-56.
- [2] Alles SR, Cain SM, Snutch TP. Pregabalin as a pain therapeutic: beyond calcium channels. *Frontiers in Cellular Neuroscience*. 2020 Apr 15;14:83.
- [3] Petroianu GA, Aloum L, Adem A. Neuropathic pain: Mechanisms and therapeutic strategies. *Frontiers in cell and developmental biology*. 2023 Jan 16;11:1072629.
- [4] Servais L, Huberland V, Richelle L. Misuse of Pregabalin: a qualitative study from a patient's perspective. *BMC public health*. 2023 Jul 12;23(1):1339.