LETTER to EDITOR

Is Clonidine Useful for the Management of Tramadol-induced Withdrawal Syndrome?

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Dear Editor-in-chief

Tramadol is a synthetic opioid with non-opioid effects. It has a low affinity to opioid receptors and inhibits re-uptake of norepinephrine and serotonin in synapses [1- 5]. Tramadol is used to treat acute and chronic pains [6]. Although it is not an OTC (over the counter) medication, it has been accessible illicitly and abused by some drug-dependent people or sometimes ingested for deliberate self-harm or suicide [1- 3]. Previous studies showed widespread use, misuse and abuse of tramadol in Iran [1, 2]. In patients with or without a history of substance abuse, who were treated by tramadol, several side effects have been reported with high odds ratio (OR) including nausea, constipation, drowsiness, respiratory distress, rhabdomyolysis, acute renal failure, refractory seizures, dependence, and withdrawal syndrome [1, 2, 7, 8]. Clonidine, an alpha-2 adrenergic agonist, is a safe and effective non-opioid treatment for opiate withdrawal syndrome and exerts its effects by decreasing noradrenergic hyperactivity in the brain. Clonidine decreases symptoms and signs of withdrawal syndrome such as anxiety, irritability, restlessness, and anger in opium, opioid, or alcohol dependent patients [9, 10]. Clonidine detoxification allows these patients to become opiate-free and clonidine-free, however, maintenance treatment with naltrexone, group therapy, and other therapeutic approaches may be necessary to maintain the abstinence period [9]. Given the utility and effectiveness of clonidine in the treatment of withdrawal syndrome presentations, it seems that clonidine may also be effective for tramadol-induced withdrawal syndrome. Therefore, further studies in this line of research may be necessary.

Keywords: Clonidine; Tramadol; Withdrawal.

REFERENCES

1. Ripamonti C, Fagnoni E, De Conno F. Withdrawal Syndrome after Delayed Tramadol Intake. Am J Psychiatry 2004; 161:2326-2327.
2. Majidi M, Nekouei Fard S, Delirrad M. Demographic Findings of Tramadol Poisoning in Women admitted to Ayatollah Taleghani hospital. J Nursing and Midwifery Faculty Urmia Univ of Med Sci 2014; 12(8): 761-766
3. Tarkkila P, Tuominen M, Lindgren L. Comparison of respiratory effects of tramadol and pethidine. European journal of anaesthesiology. 1998; 15(1):64-8.
4. Majidi M, Nekouei Fard S. Seizure and Rhabdomyolysis: Serious Complications of Tramadol Overdose. Asia Pac J Med Toxicol 2014; 3:90.
5. Stacey BR, Dworkin RH, Murphy K, Sharma U, Emir B, Griesing T. Pregabalin in the Treatment of Refractory Neuropathic Pain: Results of a 15- Month Open- Label Trial. Pain Medicine. 2008; 9(8):1202-8.
6. Radbruch L, Grond S, Lehmann KA. A risk-benefit assessment of tramadol in the management of pain. Drug safety 1996; 15(1):8-29.
7. Kabel JS, Van Puijenbroek EP. Side effects of tramadol: 12 years of experience in the Netherlands. Ned Tijdschr Geneeskd 2005; 149(14), 754-757.
8. Majidi M, Nekouei Fard S. Refractory Seizures in Tramadol Poisoning. Iranian Journal of Toxicology 2014; 8(26):1157-59.
9. Gold MS, Pottash AL, Sweeney DR, Kleber HD. Efficacy Of Clonidine In Opiate Withdrawal: A Study of Thirty Patients. Drug and Alcohol Dependence 1980; 6(4): 201-208.
10. Walinder J, Balldin J, Bokstrom K, Karlsson I, Lundstrom B, Svensson TH. Clonidine Suppression of the Alcohol Withdrawal Syndrome. Drug and Alcohol Dependence 1981; 8: 345-348.

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