Psychiatric Disorders Induced by Abuse of Non-Addictive Substances: An Original Finding

Jamshid Ahmadi*

Fatemeh Ghanizadeh Kazerooni, Department of Psychiatry, Iran

*Corresponding author: Jamshid Ahmadi, Professor and Founding Director, Substance Abuse Research Center, Shiraz University of Medical Sciences, Shiraz, Iran, Tel: +98-71-3627 93 19; E-mail: Jamshid_Ahmadi@yahoo.com

Received: Dec 28, 2015; Accepted: Feb 01, 2016; Published: Feb 06, 2016

This report displays association of abuse of unusual substances such as antibiotics and psychiatric disorders. Hence these findings could be a considerable addition to the literature.

Conclusions: It looks that not only addictive substances such as opioids, cannabis and methamphetamines may induce psychiatric problems but also non-addictive substances such as antibiotics, corticosteroids, and analgesics could induce psychiatric disturbances.

Keywords: Abuse; Antibiotics; Psychiatric disorders

Introduction

Substances like heroin that was earlier presented as a non-addictive derivative form of opium is an opioid mu receptor agonist [1].

Opium has been used up for a long time and has a history of medical, recreational and societal approval in wide compartments of the world, such as Asia, North America and Europe [1-3].

Opioids such as tramadol, codeine and methadone are pure agonist of opioid mu receptor [1], but buprenorphine is a partial agonist and has ceiling, so its utilization has reduced possibility of overdose and also has less physical dependence. Methadone and buprenorphine diminish the incidence of HIV and other problems which are consequences of opiate dependency. Opioids such as methadone is absorbed sufficiently after oral administration but buprenorphine is well absorbed after sublingual utilization, coming to 60%-70% of the plasma concentration, but poorly absorbed while used orally [4-10].

Today, prevalence of medical and mental diseases is climbing in the globe [11-29].

In mental health disorders, substance connected disorders are going up [30-69] and have caused more referrals to outpatient centers and hospitals [70-110].

Now we are reporting a patient with psychiatric disorder related to abuse of non-addictive substances. To the authors’ knowledge, there are scanty published reports on this content, so, this description could reveal a novel finding.

Patient Presentment

MR was a single, 28 years old farmer with secondary school education. He lived with his parents in Kazeroon city of Fars province in south Iran.

He bit by bit started smoking of tobacco and opium at age of 18. Since 8 years prior to this hospital admission he had a car accident with trauma to his left ankle. Then, he increased consumption of substances and gradually began abusing of tramadol, methadone, clonazepam, alprazolam and alcohol. Since 3 years prior to admission MR started smoking heroin. He step by step decreased the dose of narcotics and began abusing of antibiotics such as metronidazole (10 tablets/d), amoxicillin (4 capsules/d), cephalaxin (2 capsules/d), ciprofloxacin (2 capsules/d), cotrimoxazole (2 tablets/d); gastric acid blockers such as pantoprazole (2 tablets/d); corticosteroids such as dexamethasone (few tablets/d) and pain killers such as novafen (3 capsules/d) since 2 years prior to admission. He did not declare history of IV drug injection. Since 2 years prior to admission, he slowly developed amnesia, depressed mood, hopelessness, anxiety, agitation and irritability.

Due to the named symptoms MR was admitted in psychiatric ward.
Tests of serology for viral markers (HIV, HCV and HB Ag) were normal. Urine drug screening tests were positive for morphine and benzodiazepine.

In comprehensive psychiatric interview and precise examinations MR was hopeless, depressed, restless, anxious and irritable. In physical and neurological examinations there were not any abnormal findings.

Based on the medical, psychiatric, and substance use history and also DSM-5 criteria, he was supposed as poly substance evoked mood disorder and poly substance dependent.

Patient received sodium valproate 200 mg, olanzapine 5 mg, methadone 10 mg and diazepam 20 mg per day.

Patient was taking medications and his condition was improving every day.

Discussion

Iranian drug program expresses that while individuals are found to be using illegal substances, such as opium, heroin, morphine, marijuana, hashish, methamphetamine, cocaine and hallucinogens (tobacco products are legal), they must be referred to treatment units, outpatient centers, private clinics or psychiatric hospitals to be treated.

In Iran, substance dependents for instance opioid dependents are commonly detoxified and treated with methadone, clonidine and sometimes with buprenorphine.

This report illuminates that non addictive substances and drugs such as antibiotics (metronidazole, amoxicillin, cephalxin, ciprofloxacin, cotrimoxazole); gastric acid blockers (pantoprazole); corticosteroids (dexamethasone) and pain killers (novafen) can induce psychiatric disorders for example mood disorder. Hence these findings could be a considerable addition to the literature.

Conclusions

It can be concluded that not only addictive substances such as opioids, cannabis and methamphetamines may induce psychiatric problems but also non-addictive substances such as antibiotics, corticosteroids, and analgesics could induce psychiatric disturbances

References

1. Sadock B, Sadock V, Ruiz P (2015) Kaplan & Sadock’S Synopsis of Psychiatry: Lippinott Williams and Wilkins, Philadelphia (USA).
2. Brian J (1994) Opium and infant-sedation in 19th century England. Health Visit 67: 165-166.
3. Jonnes J (1995) The rise of the modern addict. Am J Public Health 85: 1157-1162.
4. Jasinski DR, Pevnick JS, Griffith JD (1978) Human pharmacology and abuse potential of the analgesic buprenorphine: a potential agent for treating narcotic addiction. Archives of General Psychiatry 35: 501–516.
5. Ling W, Charuvastra C, Collins JF, Batki S, Brown LS, et al. (1998) Buprenorphine maintenance treatment of opiate dependence: a multicenter, randomized clinical trial. Addiction 93: 475-486.
6. Ling W, Rawson RA, Compton MA (1994) Substitution pharmacotherapies for opioid addiction: from methadone to LAAM and buprenorphine. J Psychoactive Drugs 26: 119-128.
7. Strain EC, Stitzer ML, Liebson IA, Bigelow GE (1994) Comparison of buprenorphine and methadone in the treatment of opioid dependence. Am J Psychiatry 151: 1025-1030.
8. Johnson RE, Jaffe JH, Fudala PJ (1992) A controlled trial of buprenorphine treatment for opioid dependence. JAMA 267: 2750-2755.
9. Lewis JW (1985) Buprenorphine. Drug Alcohol Depend 14: 363-372.
10. Jasinski DR, Fudala PJ, Johnson RE (1989) Sublingual versus subcutaneous buprenorphine in opiate abusers. Clin Pharmacol Ther 45: 513-519.
11. Gill D, Ahmadi J, Pridmore S (2014) Suicide and Gambling on the Public Record. MJP 2: 81-88.
12. Ahmadi J, Galal Ahmed M, Ali Bayoumi F, Abdul Moneenum A, Alshawa H (2012) Mental health of dubai medical college students. Iran J Psychiatry Behav Sci 6: 79-83.
13. Ahmadi J, Kamel M, Ahmed MG, Bayoumi FA, Moneenum AA (2008) Dubai, Medical College students’ scores on the Beck Depression Inventory. Iranian Red Crescent Journal (iRcMJ) 10: 169-172.
14. Pridmore S, McInerney G, Ahmadi, Rybak M (2007) Enlarged Virchow-Robin spaces in a psychotic woman, Journal of Psychiatric Intensive Care 3: 49-54.
15. Pridmore S, Robinson J, Ahmadi J (2007) Suicide for scrutinizers. Australas Psychiatry 15: 247-248.
16. Ghanizadeh A, Kianpoor M, Rezaei M, Moini R, et al. (2008) Sleep patterns and habits in high school students in Iran. Ann Gen Psychiatry 7: 5.
17. Ghanizadeh A, Arkan N, Mohammad M, Ghanizadeh-Zarchi M, Ahmadi J (2008) Frequency of and barriers to utilization of mental health services in an Iranian population. East Mediterr Health J 14: 438-446.
18. Pridmore S, Ahmadi J (2010) Two cases of ‘Type 3’ suicide. Australas Psychiatry 18: 426-430.
19. Pridmore S, Brüne M, Ahmadi J, Dale J (2008) Echopraxia in schizophrenia: possible mechanisms. Aust N Z J Psychiatry 42: 565-571.
20. Pridmore S, Ahmadi J, Majeed ZA (2011) Suicide in Old Norse and Finnish folk stories. Australas Psychiatry 19: 321-324.
21. Auchtincloss S, Pridmore S (2013) Usage of ‘download of psychiatry’ in Africa. Afr J Psychiatry (Johannesbg) 16: 325.
22. Sleep Quality among Patients with Mild Traumatic Brain Injury: A Cross-Sectional Study (2015). Bull Emerg Trauma 3: 93-96.
23. Pridmore S, Ahmadi J (2015) Psalm 137 and Middle Cerebral Artery Infarction; ASEAN Journal of Psychiatry 16 : 2.
24. Pridmore S, Ahmadi J (2005) Book reviews. Aust N Z J Psychiatry 39: 205-6.
25. Pridmore S, Ahmadi J, Evenhuis M (2006) Suicide for scrutinizers. Australas Psychiatry 14: 359-364.
Ahmadi J, Dastgheib SA, Mowla A, Ahmadzadeh L, Bazrafshan A, et al. (2016) Treatment of Methamphetamine Induced Persistent Psychosis. J Add Pre Med 1: 103.

Ahmadi J, Khoddaman AR, Kordian S, Pridmore S (2016) Treatment of an obese opioid dependent with a single dose of 80 mg of buprenorphine: a new opening. Int J Res Rep 2:11-18.

Ahmadi J, Ahmadi F, Torabi A, Ahmadi S, Ahmadi F (2016) A single dose of 55 mg of buprenorphine for the treatment of heroin dependence: a new result. J Haminiz Med Res and Hlth Sci 3: 1-7.

Ahmadi J (2016) Methylphenidate in the treatment of methamphetamine withdrawal Craving: a novel outcome. J Drug Abuse 1:12.