

Multiple Prescription Drug Abuse and Salt Craving in a Psychotic Patient: A Case Report From a Teaching Hospital in Jordan

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Introduction: Diuretics and laxative abuse as a means of purging is common in patients with bulimia nervosa and there may be an underestimation of the true prevalence of diuretic abuse, as some are also available without prescription.

Case Presentation: A 28-year-old woman presented with tetany due to hypocalcemia, hypokalemia and hypomagnesemia. She had a history of laxative and diuretic abuse, and salt craving. Psychiatric evaluation revealed a disturbed social history with masked depression that necessitated treatment.

Conclusions: Multiple prescription drug abuse and salt/salty food addiction usually reflects a personality of addiction, which leads to harmful use and dependence.

Keywords: Drug Abuse; Addiction; Diuretics; Laxatives; Craving

1. Introduction

Under the headline “drug addiction” the medical world has been exclusively interested in psychoactive drugs. Diuretics and laxative abuse as a means of purging is common in patients with bulimia nervosa and there may be an underestimation of the true prevalence of diuretic abuse, as some are also available without prescription (1-3). On the other hand, salts abuse has been documented in many case reports (4-6) as being an experience-dependent process that may cause sensitization of the neural systems underlying sodium appetite and affecting sodium balance on hedonic state and mood (5). The following case report is of interest because of the fact that the patient had a distinct pattern of multiple prescription drug abuse plus a salt and salty-food craving that resulted in serious metabolic consequences.

2. Case Presentation

A 28-year-old woman was admitted to Jordan University Hospital in Amman, Jordan, February 22, 2009, complaining of severe muscle spasm. The history of the present illness dated back to three months earlier when she started to complain of painful muscle spasms in her arms, hands and legs. This had been associated with mouth deviation, teeth clenching and involuntary eye twitches with left-sided predominance. The episodes were associated with loss of consciousness and on one occasion associated with tongue bite, but were never preceded with an aura. The attacks were only relieved by taking diazepam

and were followed by dizziness and generalized weakness lasting for a few hours. Laboratory studies showed hypokalemia ($K = 0.69$ mmol/L), hypocalcemia ($Ca = 1.47$ mmol/L), hypomagnesemia ($Mg = 0.58$ mmol/L) and pure metabolic alkalosis. Five years ago, she had gone on many kinds of diets in order to lose weight, and decided that the suitable one for her comprised the eating of one small bag of chips and a large quantity of water daily, and she started to vomit several times a day after eating any kind of food. The only food she could tolerate was salt, lemon, citric acid, tomatoes and cucumbers. As a result she developed some sort of addiction to salty food; claiming to consume 3 to 4 tablespoons of table salt (NaCl), 4 tablespoons of citric acid, and 10 lemons a day. Over the past 18 months, she had had difficulty urinating without the use of diuretics (Lasix® Furosemide 40 mg 12 tablets per day) and had become physically dependent on it. On occasions she also experienced legs swelling associated with high blood pressure self managed by increasing her diuretic dose. Afterward, she suffered from severe constipation due to her lack of appetite and reduced food intake caused by depression, the patient relied mainly on salty chips and lemon only as her sole food and was not well-fed as normal healthy people; consequently, the gastrointestinal motility was negatively affected which led to constipation. The patient was unable to pass stool except by the help of a laxative (Dulcolax® bisacodyl 5 mg 12 tablets per day) which she had become dependent on.

2.1. Social History

The patient lives with her 3-year-old daughter and her sister in-law. She claimed to have poor sleeping habits and usually slept during the day. She sometimes spent 2 to 3 days without sleeping at all. She claimed to use amphetamine and have attempted suicide several times. The most recent was attempting to jump off the balcony, which was prevented by her mother. She has been a heavy smoker (3 packs/day for the past 15 years) and drunk one pint (one pint is equal to 473 mL) of beer every 3 days. The patient didn't have any seizure.

2.2. Management During Hospitalization

Upon hospitalization, and correction of serum K, Ca and Mg her symptoms were relieved. Known organic causes of salt craving such as Addison's disease were excluded by appropriate investigations. A psychiatric consultation revealed a disturbed social history with masked depression. The patient was started and discharged on mirzapine 30 mg 1×1, risperidone 1 mg 1×3 and citalopram 10 mg 1×2, CaCO₃ tablets, K-gluconate syrup, Mg-sulfate sachets and vitamin D supplements for 6 months.

3. Discussion

According to DSM-IV Criteria for major depressive disorder, the patient was diagnosed to have depression because 6 out of 9 criteria were met as the following: the patient was suffering from a) depressed mood or irritable most of the day, nearly every day such as feeling sad or empty; b) decreased interest or pleasure in most activities, most of each day; c) significant weight change (5%) or change in appetite; d) change in sleep and insomnia, she sometimes spent 2 to 3 days without sleeping at all; e) fatigue or loss of energy; f) suicidality: Thoughts of death or suicide, and had suicide trials several times (7). According to the ICD-10 Classification of mental and behavioral disorders, this is an obvious case of multiple drug abuse and salt/salty food harmful use and dependence. At least 4 of the 7 dependence criteria were met in this patient; a) tolerance: in this patient appeared as a need for markedly increased compulsion to eat salt and salty food, diuretics and laxative in larger amounts or over a longer period than was intended to achieve intoxication or desired effect; b) there is a persistent desire or unsuccessful

efforts to cut down or control her drug use; c) important social, occupational, or recreational activities are given up or reduced because of drug use; d) The drug use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by using the drugs (4). Stimulant laxatives and diuretics have been well-known in literature for their reputation in their use for weight loss, especially among females with an eating disorder (1, 2, 8, 9). In this case, the patient became unable to defecate without the use of bisacodyl. Her combined laxative and diuretic dependence may be the main factor that had contributed to the electrolyte disturbances, which caused her muscle spasms and tetany as a result of hypocalcemia, hypokalemia and hypomagnesemia. In summary, we have described a case of multiple prescription drug abuse and salt/salty food addiction reflecting a personality of addiction, which leads to harmful use and dependence.

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