ORIGINAL RESEARCH PAPER

Psychiatry

KEY WORDS:

A RARE CASE OF INTRAVENOUS PHENIRAMINE MALEATE DEPENDENCE

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ABSTRACT

Pheniramine maleate is an antihistaminic which is most commonly used as an anti-allergic drug. Although antihistamines in general have been reported to have addiction potential, there are very few case reports of oral pheniramine maleate abuse, and no reports on intravenous pheniramine maleate abuse. In this case, we present a 40 year old female; with history of use of high doses of pheniramine maleate for 7 years .Patient initially started with 25mg of oral dose and gradually progressed to intravenous use of about 20ml per day (1000mg) by self-injection. During the course of illness she had features of craving, tolerance and withdrawal symptoms. Details about mechanism of dependence, clinical profile, withdrawal symptoms and management principles will be elaborated.

Introduction:

Antihistamine-containing cough syrups and cough suppressants have been abused for a long time in various parts of the world[1], including India[2]. Psychological tolerance and symptoms of physical withdrawal following massive diphenhydramine abuse have been documented[3]. Brompheniramine-induced withdrawal has been reported and is characterized by nausea, tremor, generalized sweating and depression[4]. However, only one case of intravenous pheniramine dependence has been reported so far[5], although its abuse has been reported[6]. But very few cases of oral pheniramine abuse/dependence has been reported. Use/abuse/dependence of antihistamines or antihistamine containing cough syrups is known to be associated with psychiatric syndromes and disorders[7]. Two case reports of toxic psychosis induced by diphenhydramine and prophenpyridamine, respectively, have been reported[8]. In one study, about 44% (n=43) of pheniramine abusing patients developed psychosis/delirium while only 32% (n=75) of patients using other antihistamines developed psychosis/delirium[6]. Chlorpheniramine maleate a first generation alkyl amine antihistamine is a H1 receptor antagonist, is also found to work as a SNRI[9]. Use of partial opioid agonists with antihistaminics is a common association[10].

Antihistamines are easily accessible medications, usually sold Over-The-Counter to treat allergic reactions, pruritis, or peripheral vertigo. In this case, we present a 40 years old female with history of use of high doses of pheniramine maleate Case History:

A 40 years old housewife, with primary level education, living with husband and 2 children, brought by the husband to our OPD with complaints of use of intravenous chlorpheniramine amounting to 40ml (910 mg) per day for the past 10 years .She had no past or family history of any substance abuse. She had a well adjusted premorbid personality and no past h/o any psychiatric illness. She was first prescribed intravenous pheniramine 2ml(45mg) for her urticaria developed after her 1st child birth 20 years ago, thereafter she started using it on her own whenever she had pruritis 2 to 4ml. She reported gradual development of tolerance ,used 4ml every 2 days which increased to daily use of 10ml over a period of 2 years and increased the dose to 40ml per day in another 7 years and experienced physical and psychological withdrawal symptoms like restlessness, agitation ,anger outbursts, difficulty in sleeping and concentrating on her daily activities , dryness of mouth when she could not use the drug. General physical examination revealed multiple sites of thrombophlebitis in upper limbs, and investigations like complete blood count, ECG, chest x-ray, thyroid, renal and liver parameters and sugar levels were normal. Her mental status examination revealed restlessness, normal speech, anxious affect and no thought or perceptual abnormality with grade 4 insight. A ICD-10 diagnosis of F55.8, abuse of non dependence producing substances was made and hospitalized. She was gradually tapered from the drug of dependence over a period of 20 days, along with low doses of clonazepam to control her anxiety symptoms and aid her sleep. She was discharged symptom free and was not on any drugs while discharge. She is on regular follow up and is completely abstinent from any substance.

Discussion:

Antihistamines are usually abused in combination with opioids, steroids and laxatives. H1 histamine receptors increase DA neurotransmission in mesolimbic areas with a pattern of activation that overlaps that showed for cocaine and other drugs abused by humans and provide a strong neurobiological basis underlying the cocaine-like behavioural effects observed with these compounds and the occasional misuse of Over-The-Counter antihistamine medications[11].This patient presented with antihistaminic abuse alone. As described in the literature, this patient was abusing the most commonly abused antihistamine i.e., pheniramine. Independent abuse liability has been well documented by studies. In view of its liability to cause physical, neurological and psychiatric side effects (dizziness, dry mouth, blurred vision, poor concentration, irritability, nervousness, confusion) with long term use, it is essential that identification and treatment in a controlled setting is essential. Treatment protocol for chlorpheniramine dependence is not well defined. Hence symptomatic management was attempted in this case to manage craving and withdrawal features. There was strong enabling from spouse and family as reinforcing factor for her drug dependence. There was no pre-existing psychiatric morbidity as is the case in dependence of non abuse producing drugs.

To conclude, it can be said that antihistamines, particularly chlorpheniramine, are associated with the development of dependence. Thus it is important to evaluate for all patients who have abused or have dependence on antihistamines and those who are at risk. Abuse of anti-histaminics may be reduced by education of physicians and patients on the potential side effects like seizures and even psychosis[5]. This case emphasizes the need for awareness and regular monitoring of the use of Over-The-Counter medications in vulnerable patient populations.

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