A Case of Cannabis Induced Mania

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ABSTRACT

The active component of cannabis i.e delta 9 THC is known to have sedative, hypnotic, anxiolytic and antidepressant effects. Psychotic symptoms and schizophrenic precipitation/ exacerbations are well known and accepted after cannabis use but there is scarcity of literature for cannabis induced mania.
Here we present a case of Cannabis induced mania in a 65yr old man, in which cannabis acted as a precipitating and perpetuating factor.
There have been various case reports related to the topic and focus is required for a diagnostic entity in the international categorical criteria.

Keywords: Cannabis, Mania

INTRODUCTION

Epidemiological studies have shown that as the frequency of cannabis abuse increases, so does the risk for a psychotic disorder such as schizophrenia. Studies have also shown that cannabis is the most commonly abused drug among those diagnosed with bipolar disorder[1]. Looking at the pharmacokinetics of the psychoactive agent Δ9-tetrahydrocannabinol (Δ9-THC), its effects are perceptible within minutes. Δ9-THC is extremely lipid soluble and can accumulate in fatty tissues reaching peak concentrations in 4 to 5 days. It is then slowly released back into the body, including the brain[2]. The tissue elimination half-life of Δ9-THC is about seven days.
Cannabis intoxication can lead to acute psychosis in many individuals and can produce short-term exacerbations of pre-existing psychotic diseases[3-6]. Cannabis use also causes symptoms of depersonalization, fear of dying, irrational panic, and paranoid ideas[7]. In one survey, it was reported that 15 percent of cannabis users identified psychotic-like symptoms, the most common being hearing voices or having unwarranted feelings of persecution[8].
Two hypotheses have been developed[9]. The first hypothesis is that cannabis use causes psychotic symptoms in an otherwise healthy individual that would not have occurred with abstinence. The second hypothesis is that cannabis use may precipitate psychosis in individuals who are predisposed to acquiring a psychotic disorder[9,10].
The role of cannabis in causing bipolar disorder is not well documented. Epidemiological studies have shown that bipolar disorder has the highest rate of substance abuse comorbidity[1,11,12].The Epidemiologic Catchment Area (ECA) study found that 41 percent of patients with bipolar disorder had a comorbid substance use with cannabis being the most frequently abused[12]. Cannabis abuse prior to development of bipolar disorder has a significant effect on first-episode mania and on the course of the disease.
We present unique case of a 60yr old man, with no family history of any psychiatric illness, who presented with 15 yrs of waxing and waning manic symptoms and psychosis secondary to regular cannabis abuse. In the face of no known genetic predisposition, it is interesting that cannabis was his only trigger, which warrants further study into understanding the exact mechanism that cannabis affects the neurotransmission at various receptors.

CASE REPORT

Mr. X is a 60 yr old man who was brought to our facility by his attendants with complaints of increased talkativeness, making big claims and decreased sleep for 4-5 months. The patient reportedly had been smoking cannabis regularly and was unemployed.
According to the attendants the patient used to get up early in the morning and would leave the house and go to a nearby farm and smoke cannabis there on a regular basis. He used to talk to anyone he encountered and would go on talking uninterrupted. The patient believed that he was the one who helped India get independence and also that the Pakistani army fears his name and status. The patient said that he has encountered the Pakistan army several times and the people of India should be thankful of him. He easily got aggressive towards people who doubted his talks.
The patient reportedly has increased energy levels as he roams here and there all day and does not get tired. He has indulged in increased religious behavior as he prays frequently.

Past history

In the past 15 years the patient has suffered from multiple episodes suggestive of mania in which the patient exhibited the same behavioral pattern as above.

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The symptoms wax and waned in the years and the patient has never achieved baseline. During this course the patient has been using cannabis regularly. The patient sought treatment from various facilities but in vain.

Substance use

Mr X started using cannabis around 15 years ago. He is resident of a hilly area and there is production of cannabis nearby. The patient smokes cannabis on a daily basis and has no insight regarding its harmful use. There is no history of any other substance use.

Family history

There was no reported psychiatric illness in the family.

Mental status examination

The patient appeared to be of stated age, average built. He was dressed appropriately and made eye to eye contact during the interview. Moderate psychomotor agitation was noted as the patient was unable to sit still on the chair. Speech was increased in rate, volume and amount with decreased reaction time. He reported his mood to be happy and cheerful. Affect was elated. Patient had flight of ideas and thought content included delusions of grandiosity as he thought himself to be a person involved in high profile military activities. No perceptual abnormalities were noted. He had normal cognition. Insight and judgement were impaired.

Summary and Treatment

The patient exhibiting typical manic symptoms along with delusions of grandiosity, received a diagnosis of cannabis induced mood disorder. The patient was admitted in our facility for a duration of 15 days and considering his aggressive behavior, was started on- Na Valproate 500mg BD and Aripiprazole 10mg HS. On 1 month follow up- patient was abstinent from cannabis and showed improvement; drug tapering and observation for relapse was considered.

DISCUSSION

The debate remains as to whether or not cannabis can cause schizophrenia and bipolar disorder in an otherwise healthy individual.Clinicians have hypothesized several contributing factors including “heavy usage, length and age of users, and psychotic vulnerability.”[6]

Our patient had no past history or family history of any psychiatric disorder and he suffered from multiple manic episodes over 15 years. Cannabis use can be concluded as the causal factor due to its temporal relationship and as a precipitating and a perpetuating factor for the development of disease.

Since his symptoms resolved with these medications, we feel that the cannabis affected his neurochemical system in a chronic way causing him to have long-term problems. As our case report demonstrates, there are individuals who are otherwise healthy, with no genetic predisposition, who can be diagnosed with a psychiatric illness purely with cannabis abuse.

This goes along with the first hypothesis that cannabis use causes psychotic symptoms in an otherwise healthy individual, which would not have occurred with abstinence.

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