

Cannabis Withdrawal Precipitating First Manic Episode:

The First Case Report

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BACKGROUND

Table 1

Author Country (Year)	Design	Demographics	Onset of symptoms	Presence of psychotic symptoms	Duration of symptoms	Treatment	Comments
Ustundag et al ⁹ Turkey (2015)	Case report	18/M AA	During cannabis use, Urine cannabis +ve	Yes (Mystical grandiose delusion)	30 days	Valproic acid 1500mg/day, Olanzapine 20mg/day, Quetiapine 400mg/day, Lorazepam 1mg/day	On 15 th day Lorazepam was stopped. Patient was discharged with the medication. The psych condition was stable during 1 st month follow-up.
Iskandar et al ¹⁰ USA (2011)	Case report	17/M AA	During cannabis use, Urine cannabis +ve	Yes (disorganized thought, Auditory hallucinations and paranoia)	3 weeks	Lithium 1500 mg daily and quetiapine 500 mg daily	1 st adolescent case of cannabis induced mania.
Khan et al ¹¹ USA (2009)	Case report	21/M AA	During cannabis use, Urine cannabis +ve	Yes (disorganized thought, auditory hallucination & grandiose delusion)	4 months	Divalproex Sodium 750mg HS, Olanzapine 15mg BID	Patient received medications after 2 months when Treatment Over Objection was obtained.
Bonnet et al ³ Germany (2017)	Review 28 articles	-	Cannabis cessation	No	2 days to 4 weeks	Potential medications: Gabapentin and delta-9-Tetrahydrocannabinol analogs, Mirtazapine	Mood and behavioral symptoms are described as Cannabis Withdrawal Syndrome.
Levin et al ¹³ USA (2010)	Retrospective self-report	18-65 79.5% AA 58% M	Cannabis cessation	No	1.5 weeks to more than 1 year	-	Most common psychological symptoms are cannabis craving, mood changes and sleep disturbances. Most common physical symptoms are headache and weight gain.

CASE PRESENTATION

CONCLUSION

REFERENCES

- Cannabis is the most commonly used psychoactive substance in the world. [1] Prevalence of cannabis use in the population aged 15 to 64 is 11.6% in North America. The prevalence has increased among high-school students. [2]
- Cannabis intoxication and delirium: Increase sensitivity to external stimuli, impair motor coordination, memory and attention, subjective slowing of time, increase reaction time, depersonalization, and derealization. Cannabis Withdrawal Syndrome (CWS): Within one to two weeks of cannabis cessation in daily users. Symptoms: Irritability, agitation, anxiety, depressed mood, mood swings, decreased quality and quantity of sleep, decreased appetite or weight loss, marijuana craving, physical symptoms such as abdominal pain, tremors, sweating, fever, chills, and headache. [3,4,5]
- Several case reports that describe psychosis, and of prolonged depersonalization related to cannabis use. [6] Cohort study of sibling pairs showed association between cannabis use and psychotic symptoms. [7] Case reports that describes psychosis (disorganized thought, auditory hallucination, grandiose delusion) at the time of excessive use of cannabis. [8,9,10]
- Other literatures suggested the association between cannabis use and bipolar disorder and psychosis. [11,12] All above mentioned reports demonstrated psychotic symptoms during cannabis use. [Table 1] However, there is no literature that indicates psychotic symptoms or manic episode precipitated by cannabis withdrawal. This case presents the first manic episode precipitated by cannabis withdrawal.

- A 37-year-old, employed, Hispanic, female without significant medical and past psychiatric history was brought in to the hospital by an ambulance with a complaint of onset of paranoid and unusual behavior.
- Patient presented with irritable mood, decreased need for sleep, psychomotor agitation, flight of ideas, over-talkativeness with pressured speech, and illogical for 4 days as reported by family members. Patient also endorsed paranoid ideation to the sister that the people are watching her activity through her cell phones & email. When her sister confronted about her paranoid behavior, she argued with her sister, and she impulsively left home in the middle of the night due to which 911 was called.
- Patient reported that she had been smoking cannabis 9-10 joints a day for continuous 2 years and stopped it suddenly 4 days prior to her presentation. After she stopped, she started "feeling weird" with anxiety, tremors, sweating, nausea, and gastrointestinal discomfort with loss of appetite, and poor sleep. She reported smoking cigarettes one pack a day since age 13 but denied using other illicit substances, including alcohol. Patient denied depressive symptoms, auditory or visual hallucination, and suicidal or homicidal ideation, intent, or plan at that time.
- All physical examination including neurological exam, laboratory test results, CT scan of head were normal at presentation except mild anemia. Urine toxicology was positive for cannabis, and negative for other substances.
- On psychiatric evaluation, patient was guarded, evasive, and uncooperative to talk stating that she did not need help. She was found to be manic with irritable mood, hyperactivity, over-talkativeness, mood lability, and loud with pressured speech.
- Patient was diagnosed with Bipolar 1 Disorder, most recent episode manic with psychotic features, and rule out Cannabis Induced Bipolar Disorder/Psychotic Disorder, onset during withdrawal.
- Patient was treated with divalproex 500 mg twice daily and aripiprazole 5 mg daily and she improved significantly in following 2-3 days. Blood divalproex sodium level was 87.0. Patient was discharged home with outpatient follow up.
- On the 6th day after discharge, she was brought back to the hospital due to another manic episode and paranoia. Urine toxicology was negative for all other illicit substance except cannabis but patient denied using cannabis after being discharged from the hospital. Blood divalproex sodium level was sub-therapeutic indicating non-compliance to medications, which was also confirmed by the family members.
- Patient was treated with injection of haloperidol lactate 5mg/ml, diphenhydramine 50mg/ml and lorazepam 2mg/ml stat for aggressive behavior & hospitalized. Aripiprazole was changed to haloperidol 5mg due to poor tolerance to aripiprazole (reported feeling uneasy and shaking), started benztropine 1 mg while divalproex 500 mg was continued. The symptoms improved with this medication regimen and mental status exam became unremarkable.
- Discharged to the family on the fifth day with the current medications and a follow-up appointment with outpatient psychiatrist. At 3 months follow-up, reported that she was hospitalized once for manic symptoms. She reported to have paranoid and manic symptoms on and off, even though has been taking haloperidol and divalproex, and she has not been using cannabis frequently.

- Only use of cannabis, no other medical condition, and other substance to contribute the symptoms of cannabis withdrawal: tremor, sweating, disturbed sleep, stomach upset, anxiety which lasted for about 3-4 days after cannabis abstinence, then onset and persistence of manic and psychotic symptoms for more than a week met the criteria for bipolar mania with psychotic features and ruled out cannabis induced mania/psychosis diagnosis. Schizoaffective disorder was ruled out due to absence of 2-week period of psychotic symptoms when patient's mood symptoms were stabilized.
- The diagnosis was further supported by the quick response to mood stabilizer and antipsychotics and relapse after discontinuation of medications.
- Due to lack of research in this topic, we are not able to indicate the causal association between cannabis withdrawal and mania or bipolar disorder. Further studies on cannabis withdrawal are needed to determine the causal association.

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