

Address for correspondence:

Abhiram N. Purohith, Dept. of Psychiatry, Kasturba Medical College, Manipal, Manipal Academy of Higher Education, Manipal, Karnataka 576104, India. E-mail: abhiram.pn@gmail.com

Submitted: 23 Sep. 2023
 Accepted: 28 Nov. 2023
 Published Online: 20 Jan. 2024

References

1. Kane JM, Leucht S, Carpenter D, et al. The expert consensus guideline series. Optimizing pharmacologic treatment of psychotic disorders. Introduction: Methods, commentary, and summary. *J Clin Psychiatry* 2003; 64(Suppl 12): 5–19.

2. Nasrallah HA. The case for long-acting antipsychotic agents in the post-CATIE era. *Acta Psychiatr Scand* 2007; 115(4): 260–267.
 3. Frampton JE. Olanzapine long-acting injection: A review of its use in the treatment of schizophrenia. *Drugs* 2010; 70(17): 2289–2313.
 4. Kane JM, Detke HC, Naber D, et al. Olanzapine long-acting injection: A 24-week, randomized, double-blind trial of maintenance treatment in patients with schizophrenia. *Am J Psychiatry* 2010; 167(2): 181–189.
 5. Cohen R, Wilkins KM, Ostroff R, et al. Olanzapine and acute urinary retention in two geriatric patients. *Am J Geriatr Pharmacother* 2007; 5(3):241–246.

6. Luo HL, Lee WC, Chaung YC. A Risperidone long-acting injection provoked urinary retention: A case report. *Incont Pelvic Floor Dysfunct* 2010; 4(2): 49–51.
 7. Vera PL, Miranda-Sousa A, Nadelhaft I. Effects of two atypical neuroleptics, olanzapine and risperidone, on the function of the urinary bladder and the external urethral sphincter in anesthetized rats. *BMC Pharmacol* 2001; 1: 4.
 8. Heres S, Kraemer S, Bergstrom RF, et al. Pharmacokinetics of olanzapine long-acting injection: The clinical perspective. *Int Clin Psychopharmacol* 2014; 29(6): 299–312.

HOW TO CITE THIS ARTICLE: Kurariya A, Purohith AN, Shenoy S, Bhandary RP and Sharma PSVN. Acute Urinary Retention Associated with Olanzapine Long-acting Injection: A Case Report. *Indian J Psychol Med.* 2024;46(3):279–280.



Copyright © The Author(s) 2024

Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution- NonCommercial 4.0 License (<http://www.creativecommons.org/licenses/by-nc/4.0/>) which permits non-Commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the Sage and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

ACCESS THIS ARTICLE ONLINE

Website: journals.sagepub.com/home/szj
 DOI: 10.1177/02537176231222566

Delta-8-tetrahydrocannabinol Associated Manic Switch: A Case Report

To the editor,

There is a growing debate regarding the decriminalization and legalization of cannabis for medicinal and recreational use. Several novel tetrahydrocannabinol (THC) derivatives have gained popularity in recent years. Delta-8-THC (Δ^8 -THC), an isomer of Δ^9 -THC, is primarily produced by the cyclization of Cannabidiol, an inactive compound extracted from hemp.¹ The recreational use of Δ^8 -THC is constantly growing. Except for reports of acute toxicity, the psychiatric side effects of Δ^8 -THC are largely unknown.^{2,3} We report a case of Δ^8 -THC associated affective switch in a young adult. Informed consent was taken to report this case.

Case Description

Mr S is a 26-year-old single gentleman from South India working as an

Engineer in the United States. He has a well-adjusted premorbid personality and his family history is significant for organic mood disorder in his father and major depression in his younger brother. The onset of psychiatric illness was at the age of 25 years. It was characterized by sad mood, anhedonia, anergia, loss of appetite, disturbed sleep, and low self-esteem which lasted for more than a month. He was advised 10 mg of escitalopram by a telepsychiatry consultation. After four weeks of treatment, the patient noticed a minor improvement in his mood and energy levels and subsequently discontinued medications. On the suggestion of a friend, the patient began consuming delta-8-tetrahydrocannabinol (Δ^8 -THC) gummies on a regular basis in order to improve his mood (3–4 per day, individual dosage not clear). After one month of use, the patient developed irritability, fearfulness, and suspiciousness over his flatmate. This was followed by decreased need for sleep, elevated mood, increased self-esteem, anger, and increased activities and energy levels. The patient was hospitalized in the United States for acute management

of symptoms. The routine biochemical evaluation and Computed Tomography of Brain were normal. He was treated with 20 mg of tablet Olanzapine. There was an improvement in manic symptoms within two weeks. He did not continue to use Δ^8 -THC gummies thereafter.

After four months, he returned to India and presented to our center with complaints of pervasive low mood, reduced energy levels, reduced appetite, suicidal ideations, and disturbed sleep. After a detailed examination, a diagnosis of Bipolar Affective Disorder, severe depression without psychotic symptoms was considered as per the International Classification of Diseases, 10th edition. The past manic episode was considered as Δ^8 -THC associated affective switch. He was started on 900 mg/day of lithium along with bupropion with gradual dose titration up to 300 mg/day. There was a gradual improvement in symptoms with improvement in functioning.

Discussion

In this report, we have described Δ^8 -THC associated affective switch in a young

patient with a depressive episode in the past. This conclusion can be speculative, as patient's symptoms could be explained by escitalopram-induced affective switch or primary bipolar disorder in our patient. However, the temporal association with Δ^8 -THC use and the extant evidence on the association between cannabis (Δ^9 -THC) and mood disorder cannot be ignored.⁴ Cannabis has long been recognized as a risk factor for mania and subsequent bipolar disorder.⁴ Cannabis use at baseline has been associated with an elevated risk of manic symptoms regardless of the prevalence and incidence of psychotic symptoms. The possible mechanism is dopaminergic receptor sensitization via cannabinoid receptors.⁴ However, there is limited evidence for similar effects with Δ^8 -THC.

The euphoric and psychoactive effects of Δ^8 -THC are mediated by cannabinoid CB_1 and CB_2 receptors similar to Δ^9 -THC, albeit with a weaker affinity at CB_1 receptors. Common adverse effects of Δ^8 -THC are confusion, anxiety, drowsiness, and bradycardia.^{2,3} There have been earlier reports of psychotic symptoms secondary to the use of Δ^8 -THC.^{5,6} The similarities between Δ^8 -THC and Δ^9 -THC have been implicated behind the psychotomimetic effects of the former.⁶

Various Δ^8 -THC compounds are being increasing marketed on many online

platforms without adequate regulation. A wide range of Δ^8 -THC products (gummies, tinctures, oil, vaporizing pens) are available for use with no adequate caution or awareness. Even in India, there is an absence of legislation and restrictions for age limits for purchase. Healthcare professionals should be cautious about the potential adverse effects including the risk of psychosis and mood disorders with Δ^8 -THC and the other legal THC derivatives.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iDs

Abhiram N. Purohith  <https://orcid.org/0000-0002-0265-2147>

P. S. V. N. Sharma  <https://orcid.org/0000-0001-8409-4785>

**Sudharshan Raghunathan¹,
Abhiram N. Purohith¹ and P. S. V. N. Sharma¹**

¹Dept. of Psychiatry, Kasturba Medical College, Manipal, Manipal Academy of Higher Education, Manipal, Karnataka, India.

Address for correspondence:

Abhiram N. Purohith, Dept. of Psychiatry, Kasturba Medical College, Manipal, Manipal Academy of

Higher Education, Manipal, Karnataka 576104, India.
E-mail: abhiram.pn@gmail.com

Submitted: 22 Sep. 2023

Accepted: 02 Dec. 2023

Published Online: 20 Jan. 2024

References

- Dotson S, Johnson-Arbor K, Schuster RM, et al. Unknown risks of psychosis and addiction with delta-8-THC: A call for research, regulation, and clinical caution. *Addiction* 2022; 117(9): 2371–2373.
- Kruger DJ, and Kruger JS. Consumer experiences with delta-8-THC: Medical use, pharmaceutical substitution, and comparisons with delta-9-THC. *Cannabis Cannabinoid Res* 2023; 8(1): 166–173.
- LoParco CR, Rossheim ME, Walters ST, et al. Delta-8 tetrahydrocannabinol: A scoping review and commentary. *Addiction* 2023; 118(6): 1011–1028.
- Henquet C, Krabbendam L, de Graaf R, et al. Cannabis use and expression of mania in the general population. *J Affect Disord* 2006; 95(1–3): 103–110.
- Bozman ME, Manoharan SV, and Vasavada T. Marijuana variant of concern: Delta-8-tetrahydrocannabinol (delta-8-THC, Δ^8 -THC). *Psychiatry Res Case Rep* 2022; 1(2): 10028.
- Miller CR, Burk BG, Fargason RE, et al. Delta-8-THC association with psychosis: A case report with literature review. *Front Psychiatry* 2023; 14: 1103123.

HOW TO CITE THIS ARTICLE: Raghunathan S, Purohith AN and Sharma PSVN. Delta-8-tetrahydrocannabinol Associated Manic Switch: A Case Report. *Indian J Psychol Med.* 2024;46(3):280–281.



Copyright © The Author(s) 2024

Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution- NonCommercial 4.0 License (<http://www.creativecommons.org/licenses/by-nc/4.0/>) which permits non-Commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the Sage and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

ACCESS THIS ARTICLE ONLINE

Website: journals.sagepub.com/home/szj
DOI: 10.1177/02537176231222567

Use of Erythromycin in Clozapine Induced Constipation: A Case Report

To the editor,

Clozapine is the medication of choice for treatment-resistant schizophrenia. Clozapine has multiple serious side effects. This includes slowed gastroin-

testinal transit in up to 80% of patients due to its significant anticholinergic effect and serotonin receptor antagonism.¹ Clozapine-induced gastrointestinal hypomotility (CIGH) is a type of paralytic ileus due to impairment of muscle contraction in the digestive track.¹ The CIGH can result in severe constipation, paralytic ileus, and bowel obstruction, the latter being

associated with a high mortality rate.² The usual management of CIGH is the administration of multiple laxatives, although there is little evidence of their efficacy.² Treatments that stimulate gut motility have been used recently with some success, including prucalopride.³

Oral erythromycin, an antibiotic, has also been used effectively as a prokinetic