

Are the Therapeutic Qualities of Cannabis Reinforcing its Abuse? A Case Report

Sir,

Cannabis is the most commonly cultivated, trafficked, and abused illicit drug worldwide. Though it has been found to be useful in a few medical conditions, controversies surrounding the legal, ethical, and societal implications associated with use, safe administration, dispensing, and adverse health consequences represent some of the complexities associated with its use as a medicinal agent.^[1]

Overactive bladder (OAB) is a syndrome characterized by symptoms of urgency, with or without urge incontinence, usually with increased daytime frequency and nocturia.^[2] The term OAB can only be used if there is no proven infection or other causative pathology. It was further refined as a frequency of >8 micturitions/24 h and urgency and urge incontinence, which are not explained by metabolic or local pathological factors.^[3] Prevalence in India was 49% among men.^[4] Antimuscarinic agents are currently the first-line pharmacotherapy for OAB.^[5] However, a significant proportion of patients may not be ideal candidates for these agents due to contraindications, lack of efficacy, and/or side effects. Hence, various other molecules have been evaluated, including β agonists, botulinum toxin, tachykinins, and physiological methods.^[6] Cannabis is one among the other agents, which has been proposed to be useful.^[6,7] Herein we would like to discuss a case of cannabis dependence and OAB who had relief of OAB symptoms while using cannabis.

CASE REPORT

Mr. X, a 22-year-old male pursuing his postgraduation, presented to us in March 2017. He was premorbidly a well-adjusted individual, with no significant medical history and family history suggestive of cannabis use and conduct disorder in younger brother. Mr. X started using marijuana at the age of 19 due to peer pressure and curiosity. Gradually, he developed tolerance, leading to increase in the number of joints per day, significant craving, loss of control, and withdrawal symptoms in the form of irritability and restlessness. He was found to be euphoric, disinhibited, and unable to concentrate in the class after smoking cannabis, unlike his premorbid self. His teachers and friends often noted him to have conjunctival injection. He had tried alcohol on a few occasions, but cannabis remained his substance of preference. He had missed classes in order to procure, use, or recover from the effects of cannabis and failed to pay his college fees. Parents were informed by the institute, following which he was brought to us for treatment. His last use of cannabis was on the previous day. There was no significant period of abstinence. His physical examination was normal except for conjunctival injection. Mental status examination revealed anxious affect, craving for cannabis, and precontemplation phase of motivation. His cognitive functions were intact and there was no evidence of organic or other

psychiatric illness. He was diagnosed to have cannabis dependence according to International Classification of Diseases-10th Edition.^[8] He was admitted, evaluated in detail with blood investigations, and other comorbidities were ruled out. During psychotherapy sessions, the patient used the restroom frequently—at least twice during every 45-min session.

On enquiry, he revealed that he has been passing urine at least 15–20 times during daytime and 3–4 times at night since 12 years of age. During school days, he would wait for every period to finish and rush to the restroom. There was an occasional history of urge incontinence. The patient reported that this had caused significant distress, but he had not sought any medical help. Surprisingly, for the past 2 years, he did not have this problem, and he was able to sit in the class for 2–3 h at a continuum. However, following his admission to the hospital and abstinence from cannabis, there was a reappearance of urinary symptoms.

The patient was evaluated with urine routine examination, culture and sensitivity, and ultrasound abdomen and pelvis, which were normal. The patient was asked to maintain a diary, and an input-output chart was maintained for 3 days. The mean frequency of micturition was 25 times during the day and four at night. The output quantity was normal. Urologist opinion was obtained, and an urodynamic study showed detrusor hyperactivity characterized by involuntary detrusor contractions during the filling phase of micturition cycle. A diagnosis of OAB was made. Lifestyle modifications and behavioral interventions, including avoiding caffeinated beverages, restricting fluid intake before bedtime, pelvic floor exercises, and gradually increasing the holding time of the bladder, were initiated. The patient was also started on T.Tolterodine 4 mg after that the frequency and urgency reduced significantly. The patient was discharged after 3 weeks once his motivation to abstain from cannabis improved. The patient was lost to follow-up in June 2017, and he discontinued T.Tolterodine, leading to relapse of OAB. In September 2017, he presented again after 2 months of relapse to cannabis use, during which his OAB symptoms were completely absent. The patient believed that cannabis helped with his OAB symptoms, which were one of the maintaining factors of his cannabis use along with craving and peer pressure.

DISCUSSION

The OAB symptoms of Mr. X, which started at 12 years, subsided when he was using cannabis. Research has shown that endothelial cells and detrusor muscle cells of the urinary bladder have cannabinoid receptors (CB1, CB2),^[9] and cannabis has been shown to be efficacious in incontinence caused by neurological causes as well.^[7]

Medical uses of cannabis have been a matter of intense research and debate for many decades. Even though cannabis has been found to be useful in many medical conditions, its effect on cognition, behavior, and other psychological domains have been keeping a check on further developments in the area.^[10] Although cannabis use reduced the symptoms of OAB in this patient, as mental health professionals, the proposed neuropsychological impairments are of our concern. Appropriate research to find chemical cannabinoids without neuropsychological impairments and abuse potential will be a game changer for many indications including OAB.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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REFERENCES

1. Bridgeman MB, Abazia DT. Medicinal cannabis: History, pharmacology, and implications for the acute care setting. *Pharm Ther* 2017;42:180-8.
2. Abrams P, Khoury S, Cardoza L, Wein AJ, editors. International consultation on incontinence, Incontinence. 4th ed. Paris: Health Publication; 2009.
3. Milsom I, Abrams P, Cardozo L, Roberts RG, Thüroff J, Wein AJ. How widespread are the symptoms of an overactive bladder and how are they managed? A population-based prevalence study. *BJU Int* 2001;87:760-6.
4. Moorthy P, Lapitan MC, Quek PL, Lim PH. Prevalence of overactive bladder in Asian men: An epidemiological survey. *BJU Int* 2004;93:528-31.
5. Chapple CR, Khullar V, Gabriel Z, Muston D, Bitoun CE, Weinstein D. The effects of antimuscarinic treatments in overactive bladder: An update of a systematic review and

- meta-Analysis. *EurUrol* 2008;54:543-62.
6. Murphy AM, Krlin RM, Goldman HB. Treatment of overactive bladder: What is on the horizon? *IntUrogynecol J* 2013;24:5-13.
 7. Freeman RM, Adekanmi O, Waterfield MR, Waterfield AE, Wright D, Zajicek J. The effect of cannabis on urge incontinence in patients with multiple sclerosis: A Multicentre, randomised placebo-controlled trial (CAMS-LUTS). *Int Urogynecol J* 2006;17:636-41.
 8. World Health Organization. The ICD 10 Classification of mental and behavioral Disorders. Geneva: World Health Organization; 1992.
 9. Tyagi V, Philips BJ, Su R, Smaldone MC, Erickson VL, Chancellor MB, *et al.* Differential expression of functional cannabinoid receptors in human bladder detrusor and urothelium. *J Urol* 2009;181:1932-8.
 10. Volkow ND, Swanson JM, Evins AE, delisi LE, Meier MH, Gonzalez R, *et al.* Effects of cannabis use on human behavior, including cognition, motivation, and psychosis: A review. *JAMA Psychiatry* 2016;73:292-7.

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