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OBSESSIVE-COMPULSIVE DISORDER WITH ONSET DURING INTOXICATION OF SYNTHETIC CANNABINOID: A CASE REPORT

SENTETİK KANNABİNOİD İNTOKSİKASYONU İLE BAŞLAYAN OBSESİF-KOMPULSİF BOZUKLUK: BİR VAKA RAPORU

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Öz

Sentetik kannabinoidler (sk'ler) dünya genelinde psikiyatrik bozukluklara neden olan psikoaktif maddelerdir. Maddenin yol açtığı obsesif-kompulsif ve ilişkili bozukluklar (okib) madde kullanımı sırasında veya kullanımdan sonra bir ay içinde semptomların olmasını gerektiren bir alt gruptur. Madde veya ilaç kullanımının yol açtığı okib semptomu olan vakaları bildiren bir çok rapor olmasına rağmen bildiğimiz kadarıyla bunların hiçbiri sk kullanımına bağlı gelişen okib semptomu bildirmemektedir. Biz de burada sk'lerin kullanımı sonrası okib semptomları olan bir vakayı bildiriyoruz.

Anahtar Kelimeler: sentetik kannabinoidler, intoksikasyon, yeni psikoaktif maddeler, obsesif-kompulsif ve ilişkili bozukluklar

Abstract

Synthetic cannabinoids (scs) are psychoactive substances that cause psychiatric disorders throughout the world. Substance-induced obsessive-compulsive and related disorder (ocrd) is a subgroup which necessitates symptoms during or within a month after substance use. Despite many reports presenting cases of having ocrd symptoms induced with substance or medicine use, to our knowledge, none of them presents sc-induced ocrd symptoms. Hereby we present a case with ocrd symptoms after the use of scs.

Keywords: *synthetic cannabinoids, intoxication, new psychoactive substances, obsessive-compulsive and related disorder*

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1. Introduction

New psychoactive substances (NPS) are defined as substances that are not controlled by the international drug control conventions but may pose a public health thread (World Drug Report, 2017). Among these substances, synthetic cannabinoid receptor agonists, namely "synthetic cannabinoids", constitute a proportion of 32% (World Drug Report, 2018). SCs cause psychiatric disorders throughout the world like hallucinations and delusions, irritability and agitation, self-mutilation, catatonia in intoxication; may trigger the onset of psychosis or exacerbate existing psychotic disorder (Evren (Ed.), 2018; Grigg et al., 2019; Meijer et al., 2014; Mills et al., 2015; Smith & Roberts, 2014).

Obsessive-compulsive disorder is characterized by intrusive and undesired thoughts or impulses that often lead to an increase in anxiety or distress (obsessions) and/or repeated physical or mental acts done in reply to obsessions or in a rigid way (compulsions) (American Psychiatric Association, 2013; Sadock, B. J., Sadock, V.A. & Ruiz, 2015). The lifetime prevalence of OCD is estimated at 2 to 3% in the general population (Sadock, B. J., Sadock, V.A. & Ruiz, 2015). Substance or medication-induced obsessive-compulsive and related disorder (OCRD) is a subgroup of OCRD and requires use or withdrawal of medication or substance (American Psychiatric Association, 2013). DSM-5 specifies substance-induced OCRD with the use of amphetamine (or other stimulants), cocaine and other (or unknown) substances (American Psychiatric Association, 2013). In the literature, there are several medications and substances that are reported to cause OCRD symptoms like atypical antipsychotics (clozapine, olanzapine, quetiapine, risperidone), anticonvulsants (zonisamide, levetiracetam, lamotrigine), isoniazid, interferon, methylphenidate, fluoxetine, codeine, ecstasy (Baytunca et al., 2015; Coşkun & Bilgiç, 2018; DeRosse et al., 2006; Diler et al., 2003; Fujikawa et al., 2014; Grover et al., 2016; Hirai et al., 2002; Kim et al., 2019; Marchesi et al., 2009; Mottard & de la Sablonniere, 1999; Narayanaswamy et al., 2012; Özer et al., 2006; Senjo, 1989; Serby, 2003; Sharma & Doobay, 2018).

However, to our knowledge, there isn't any report presenting OCRD symptoms induced with SC intoxication. Hereby we present a patient who develops these symptoms with onset during intoxication of SC.

2. Case

A 24-year-old male was admitted to our clinic due to his self-destructive behaviors, talking to himself, restlessness and sleeplessness by his family members. Upon interviewing with him and his family members and reviewing his medical records, we delivered the following history of his psychiatric situation: He had no family history of psychiatric disorder including OCRD. He started to use cannabis and synthetic cannabinoids, and occasionally inhalants, approximately six years ago. After 2 months beginning his military service at the age of 20, he fled from his military post and used inhalants. He was caught and taken to a military hospital's psychiatry clinic with possible psychotic symptoms like talking to himself and diagnosed inhalant-induced psychotic disorder with onset during intoxication. After his hospitalization, he was sent back home. He was admitted to the psychiatry clinic several times since then with the diagnosis of substance-induced psychotic disorder. In time, he abandoned using inhalants and cannabis and continued using SCs. His last hospitalization was two months before admitting to our clinic with the diagnosis of substance use disorder and substance-induced psychotic disorder. He was discharged from the hospital with 10 mg/day olanzapine and 100 mg/day quetiapine.

When he was admitted to our clinic he wasn't on his medications. We checked for any health issue he might have by doing physical and neurological examinations, blood and urine tests and recording ECG. His examinations, complete blood count, biochemical parameters of blood and urinalysis were normal. We didn't find any substance metabolites in the urine test. His ECG was normal in every aspect. His mental status examination was as follows: He appeared poorly groomed, looking his age. He was cooperative, interested in interview and had eye contact. His speech was of normal rate, amount and volume. His thought process was linear, organized and goal-directed. He was inclined to be angry with dysphoric mood. He reported sexual obsessions with close family members, compulsive prayer to dismiss these thoughts and also reported persecutory delusions towards him and his family members. He didn't report hallucinations or illusions of any kind. His judgment and abstract reasoning were mildly impaired. His insight into his disorder was partial.

Although substance metabolites were not detected in urine tests, anamnesis taken from the patient himself

revealed that he used SCs two days before coming to the hospital. He told that he experienced these intrusive thoughts after using SCs. He was diagnosed with substance use disorder, substance intoxication and substance-induced OCD with onset during intoxication. Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) was administered to determine the severity of the symptoms and to follow up the response after treatment (Goodman et al., 1989). He scored 25 points at admission. The treatment was started for detoxification with 2000 cc/day intravenous saline infusion and 10 mg/day intramuscular haloperidol. After three days, his persecutory delusions were disappeared as well as his obsession and compulsions. Y-BOCS was administered for follow-up and he scored 0 points. When discharging, we prescribed 2 mg/day risperidone against the impulsiveness of the patient as his impulsive behaviors continued despite the fact that his obsessive and compulsive symptoms have disappeared. We didn't prescribe any first-line agents for the OCRD symptoms as the patient completely recovered from those symptoms.

3. Discussion

This report brings into question about the causal relationship between the SC use and the OCRD symptoms. This patient didn't have any psychiatric disorder before the beginning of substance use. He was lacking any personal or familial history of OCRD. As he uses multiple substances one may ask how to be sure that the cause of the patient's OCD symptoms is his SC use. We should remark here that he was using multiple substances for a while but he had these OCD symptoms long after the abandonment of inhalant and cannabis use. Having not found any metabolites of SCs in the urine test does not prove that the patient did not use SCs as it is known that SCs are not usually detected in routine drug screens (Mills et al., 2015; Namera et al., 2015).

When he was admitted to our clinic, he wasn't on his medications so these symptoms cannot be attributed to second-generation antipsychotic use as some reports do (Diler et al., 2003; Kim et al., 2019; Mottard & de la Sablonniere, 1999; Narayanaswamy et al., 2012; Özer et al., 2006). Also, his OCD symptoms are not thought to be exasperated with the prescription of 2 mg/day risperidone as the suggested dose of risperidone in OCRD symptoms is 0.25 to 3 mg/day and it is known that the risk of aggravation of symptoms is higher with doses above 3 mg/day (Alevizos et al., 2002; Yoon, 2003).

Various aspects of the case indicate that there is a causative relationship between the SC use and the OCD symptoms like only presenting the symptoms after the SC use, the disappearance of symptoms after cessation of the SC use and re-developing the symptoms after re-usage of the SCs.

The prevalence of OCRD symptoms with the use of SCs is unknown. Since SCs generally cause more problematic psychotic symptoms patients are not questioned about OCRD symptoms as much as psychotic symptoms. Even if the patients report these symptoms they may be attributed to a psychotic disorder.

Considering the fact that the prevalence of the SC use between the ages of 15-34 is from 0,1% to 1,5% in Europe, changing from country to country, we predict that OCRD symptoms induced by the SC use go unnoticed in clinical practice (European Drug Report, 2019). A paper that states synthetic cannabinoid-induced OCD symptoms are more frequent than natural cannabis-induced OCD supports this view. Nevertheless, there is no report for OCRD symptoms with onset during intoxication of synthetic cannabinoid as far as we know (Mensen et al., 2019).

4. Conclusion

The case we are presenting suggests that the patients who are admitted to psychiatry clinics ought to be questioned for their possible OCRD symptoms as this is vital for the prevention of chronicity of the OCRD symptoms.

Patient informed consent: There is no need for patient informed consent. The case report has been written in an anonymous characteristic and the detailed information about the patient has been removed.

Ethics committee approval: The authors have complied with the Declaration of Helsinki Research Ethics in the treatment of their sample.

Conflict of interest: There is no conflicts of interest to declare.

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