Another Case Report of Olanzapine-related Masturbation: Is It Associated with Akathisia?

Excessive masturbation associated with olanzapine has been reported in a pediatric patient [1]. We have read with interest the recent report “Olanzapine-related hypersexuality: a case report” written by Huang and associates [2]. In that report, the authors described that a 43-year old olanzapine-medicated male patient with schizophrenia started to be hypersexual and to masturbate more frequently after he received 15 mg/day of olanzapine. To echo this case report, we report here another case of a female patient with schizophrenia who started to masturbate in public soon after her receiving an intramuscular injection of 10 mg olanzapine.

Case Report

This 39-year old female patient with chronic schizophrenia had premorbid personality of being shy, introverted, and isolated. After several episodes of acute exacerbation, she could stay stable at day care with good drug adherence under daily 4 mg of risperidone at bed time.

The patient complained of having to take many tablets at bed time. She reduced the dose of propranolol for a few days into a half – taking propranolol 20 mg in the morning but skipping propranolol 20 mg in the evening. At 8:00 a.m. of the day of the incident, she was brought to emergency department (ED) due to her being agitated and being argumental since 6:00 p.m. Under the impression of aggravated psychotic symptoms, she received olanzapine 10 mg intramuscularly. After a short period of observation, she was discharged home from ED.

When the patient was back home about 20 minutes later, she began to use her hands rubbing her breasts and genitalia with screaming, and swayed her trunk from side to side. At 10:30 p.m., she was brought back to ED. On arriving at ED, she was rather suffering and twisted her body with moaning. She sat and lied in the bed but was unable to stop shaking her hands and legs. She still wanted to masturbate at ED, but was stopped by her family. Under the impression of akathisia, she received intravenous lorazepam 2 mg and oral propranolol 20 mg. Her symptoms were subsided half an hour later. She was then discharged home at 11:30 p.m.

Comment

Our patient’s subjective suffering, restlessness, and inability to remain seated or lying are typical pictures of akathisia. Retrospectively, we suspected that her aggravation of mood and behavior symptoms was also related to akathisia. We overlooked the possibility of akathisia, making a wrong decision, and giving her the intramuscular injection with olanzapine 15 mg was a mistreatment to make her suffering. Kafka formulated that hypersexual disorder, differing from paraphilia, is
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...a sexual desire disorders with volitional impairment to induce adverse consequences [3]. He has also divided hypersexual disorder into sexual desire dysregulation, sexual addiction/impulsivity, and sexual compulsivity [3]. Under this classification, our patient belonged to the extreme case of sexual compulsivity.

The neurochemicals to mediate sexual desire include dopamine (DA), serotonin (5-HT), and endogenous opioids. DA stimulates sexual attention and desire [4]. Activation of 5-HT_{2A} receptor can impair sexual function, and olanzapine’s blockage on 5-HT_{2A} receptors may play a rôle to cause an increased libido [2], and sexual satiety [4]. Endogenous opioids mediate sexual reward [4]. Being an often under-diagnosed distressing symptom [5], akathisia is also considered as primarily a psychological symptom and not just a movement disorder [6]. In neurobiology, akathisia and sexual desire both have close connection with nucleus accumbens which is associated with behavior reward. Although the pathophysiological mechanisms between akathisia and hypersexuality overlap apparently, only few reports have directly mentioned akathisia with hypersexuality [7, 8]. Most articles about psychotropic-induced hypersexuality do not clarify the symptoms of akathisia.

In a series of five patients [9], Walters et al. have reported a successful case report of suppressing akathisia with opioid. One of their patients even received naloxone and had brief and severe reactivation of akathisia [9]. Trettler and associates gave naloxone to 88 opiate addicts under anesthesia. Many patients have suffered from psychomotor restlessness which is similar to akathisia [10]. From the data above, we suppose that endogenous opioid system is closely involved in modulating akathisia. Sexual behavior (e.g. masturbation or coitus) may arouse endogenous opioid system to relieve the distressing dysphoria and discomfort of akathisia. Before receiving the injection of olanzapine, our patient’s dose of propranolol was reduced from 40 mg to 20 mg per day, making akathisia more pronounced. Therefore, those sexual behaviors in our patient can be regarded as a kind of “self-medication” to overcome akathisia. Based on the observation of our patient and information from other reported cases, we suggest that clinicians need to pay attention to akathisia in the context of hypersexuality, to prevent adverse psychosocial consequences. (This case report was approved by IRB of Chi Mei Medical Center for publication. We also declare no conflicts of interest in writing this report.)

References


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