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Ziprasidone use Associated with Sexual Hyperarousal

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To the Editor:

Sexual dysfunction is a common condition in patients taking antipsychotic medications, with a reported prevalence of 45-80% in men, and 30-80% in women[1]. Ziprasidone is an atypical antipsychotic with low rates of side effects. Ziprasidone induced spontaneous orgasm and priapism were reported in the literature[2,3]. Here, we report a case of increased sexual arousal after ziprasidone treatment.

A twenty-three-year-old, single, female patient was admitted to our clinic with persecutory and reference delusions (e.g., being followed by others, thoughts withdrawn out of her mind by others), and auditory and visual hallucinations (e.g., images that men want to be intimate with her). Her complaints were persistent for about one month. Her psychiatric examination revealed the following findings: appeared at her stated age, fair hygiene and grooming, she was cooperative, no psychomotor agitation or retardation, her speech had normal rhythm but rate was slow, thought content had delusions of reference and other Schneiderian first-rank symptoms (e.g., thought withdrawal), her perception was impaired with auditory and visual hallucinations, her reality testing was impaired, she was alert and oriented to time, place, person, and situation, her attention and concentration were diminished, and her judgment, awareness and insight were partially fair. Olanzapine 10 mg/day was started with a tentative diagnosis of schizophreniform disorder. The patient did not tolerate olanzapine treatment due to side effects such as sedation, dry mouth, and weakness. Therefore, the patient was switched to risperidone 2 mg/day treatment after one week. After one month of treatment with risperidone, the patient complained of psychomotor slowing and dysarthria. Subsequently, risperidone was switched to aripiprazole 10 mg/day, and the dose was increased to 20 mg/day later. Aripiprazole treatment caused an exacerbation in psychotic symptoms and was discontinued. The patient was then started on ziprasidone 40 mg/day, and the dosage was increased gradually. After increasing the ziprasidone dose to 60 mg/day, her psychotic symptoms diminished markedly, but she complained about increased sexual arousal which was prominent at nights. She described this feeling as intrusive and uncontrollable. She was experiencing this unpleasant side effect a few times a day and this was not reported to be associated with any feelings of sexual desire. No other symptoms suggestive of a manic/ hypomanic episode were present, and no other medical causes relevant for a hormonal change were found. The patient also said that she had neither expressed this type of sexual side effect with her previous antipsychotics, nor she had a similar period in her life previously. Ziprasidone was tapered slowly and quetiapine 300 mg/day treatment was initiated. Sexual side effects disappeared a few days after the discontinuation of ziprasidone. Unfortunately, the patient stopped taking quetiapine due to weight gain of approximately 9 kg in a month. She reported that her increased sexual arousal disappeared after the cessation of ziprasidone. The treatment was changed to haloperidol 10 mg/day and biperiden 4 mg/day. There was a significant

improvement in the patient's psychotic symptoms after this treatment.

The patient described this sexual side effect as unrelated to her visual hallucinations. This side effect emerged after her psychotic symptoms markedly diminished with ziprasidone treatment and was of continuous nature. The patient was unable to cope with this, and therefore felt that she had to keep away from other people which seemed to exacerbate her negative psychotic symptoms. The side effect disappeared totally after the discontinuation of ziprasidone.

Ziprasidone has been reported to cause sexual dysfunction at a much lower rate than other antipsychotics[2]. Sexual function is hypothesized to be affected by serotonin-dopamine balance. Dopamine has excitatory, and serotonin has inhibitory properties on sexual function[4]. 5-HT2 receptor antagonism of ziprasidone has been shown to facilitate dopamine release in the human cortex in preclinical studies[5]. This mechanism might be responsible for the possible sexual hyperarousal induced by ziprasidone. Although a case of spontaneous orgasm and a case of priapism were reported with the clinical use of ziprasidone[2,3], to the best of our knowledge, this is the first case report of increased sexual arousal with ziprasidone. Ziprasidone has the potential to cause sexual side effects. Psychiatrists should keep in mind that ziprasidone may have some sexual side effects including increased sexual arousal.

Keywords: *schizophrenia, sexual side effect, ziprasidone, sexual hyperarousal*

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