Compulsive Sexual Behaviors Treated With Naltrexone Monotherapy

To the Editor: Compulsive sexual behaviors are excessive or uncontrolled sexual cognitions or behaviors that lead to clinically significant distress with undesired medical, social, occupational, legal, or financial consequences.[1] Typically, compulsive sexual behaviors are characterized by the failure to resist the urge for a given sexual behavior, which is frequently followed by feelings of guilt, regret, and self-reproach, leading to their inclusion in the spectrum of impulse control disorders.[2] The treatment of compulsive sexual behaviors is challenging, with reports[3] of varying success for several psychotherapeutic and pharmacologic interventions, including serotonin reuptake inhibitors, mood stabilizers, and antipsychotics. Evidence[4,5] suggests that naltrexone, an opioid antagonist classically used in the treatment of opioid dependence, could be an option for treatment of these conditions. The effects of naltrexone have been proposed to result from blockage of opioid receptors on γ-aminobutyric acid interneurons in the ventral tegmental area (VTA), thus inhibiting VTA dopaminergic neurons that are thought to underlie the reinforcing properties of the compulsive behaviors.[6] We report the case of a patient with compulsive sexual behaviors who was successfully treated with naltrexone monotherapy.

Case report. A 27-year-old man first presented to our outpatient psychiatry clinic for self-reported "sexual compulsions." The patient indicated spending a significant amount of time and money fantasizing about and hiring prostitution services, describing a particular fixation with "transvestite men." He considered himself heterosexual and described these sexual behaviors as "strange perversions," causing shame and disgust that he felt unable to control. The patient was referred for psychological assessment and completed the compulsion subscale of the Yale-Brown Obsessive Compulsive Scale-II[7] to assess the nature and severity of his sexual compulsions (Table 1). While the most distressing compulsion was intercourse with transvestite men, occurring at least once every 2 months, he also reported excessive viewing of pornography no less than 3 hours and up to 10 hours every day. Although a common compulsive sexual behavior, he did not report compulsive masturbation. The patient felt unable to control these behaviors and reported clinically significant depression and anxiety symptoms. He was taking fluoxetine 20 mg/d and attending a supportive psychotherapy program, but he reported no long-term benefit from these and prior treatments, including multiple antidepressants, mood stabilizers, neuroleptics, and other courses of psychotherapy. Irrespective of treatment optimization (fluoxetine 40 mg/d and aripiprazole 10 mg/d), symptoms were unchanged, and a trial of naltrexone (50 mg/d) was proposed.

After 2 months, the patient reported significant improvements in the reduction of sexual fantasies and control of sexual impulses. He had not engaged in intercourse with prostitutes, and he was very satisfied with his treatment. Since he attributed no benefit to the use of other medications, he had stopped taking them by his own initiative and had only been taking naltrexone for several weeks. He continued to attend psychotherapy. The naltrexone dose was increased to 100 mg/d. After 10 months of naltrexone monotherapy, sustained improvements were noted, and the patient reported one recurrence in use of prostitution services. He described a spontaneous attempt to stop naltrexone, but he resumed medication after only 2 days due to increased thoughts and urges related to sexual acts. A follow-up psychological assessment (Table 1) showed improvement in his depressive symptoms but an increase in anxiety. While the patient continued using pornography no more than 3 hours per day, he did not consider this behavior as problematic.

Table 1. Summary of the Patient's Psychometric Results Before and After 10 Months of Naltrexone Monotherapy

Scale	Before Naltrexone Treatment	After Naltrexone Treatment	Percent Change
BDI-II score	33	26	−21.2%
STAI-Y1 score	42	57	+35.7%
Y-BOCS-II, compulsions score	14	0	−100%

Abbreviations: BDI-II = Beck Depression Inventory-II (see Campos et al[8]); STAI-Y1 = State-Trait Anxiety Inventory-Form Y (see Silva and Campos[9]); Y-BOCS-II = Yale-Brown Obsessive Compulsive Scale-II (see Storch et al[7]).

There are other publications[4,6,10–12] reporting efficacy for naltrexone in cases of compulsive sexual behaviors. Raymond et al[4] reported 2 cases of improvement in sexual compulsions and psychosocial functioning with use of naltrexone to augment therapy with fluoxetine. Bostwick and Bucci[6] found similar results in a case of internet addiction with occasional sexual compulsive behavior in which the patient's sexual compulsions remitted after naltrexone was added to treatment with sertraline. Ryback[11] described an open-label study of naltrexone in 21 male adolescent sex offenders concomitantly treated with stimulants, antidepressants, mood stabilizers, antipsychotics, or other medications. Of those patients, 71% reported a significant reduction in sexual arousal, masturbation frequency, and sexual fantasies with naltrexone. In 9 of 10 patients, compulsive sexual behaviors reverted to baseline levels when naltrexone was administratively discontinued.[11] Grant and Kim[10] reported remission of stealing and sexual urges in a case of kleptomania with comorbid compulsive sexual behavior after treatment with high-dose naltrexone (150 mg/d), but it is unclear if the opioid antagonist was adjunctive to high-dose fluoxetine or used in monotherapy. The case described here adds to this literature since sexual compulsions were successfully treated using naltrexone monotherapy, which is consistent with the description by Kraus et al[12] of reduction in excessive internet pornography viewing after treatment with naltrexone monotherapy.

There is also evidence to support the use of naltrexone in the context of other disorders of the impulsive-compulsive spectrum, namely compulsive buying,[13] kleptomania,[10] pathological gambling,[5] alcoholism,[14] trichotillomania,[15] eating disorders,[16] and self-injury behaviors in borderline personality disorder.[17] In most cases, naltrexone is used to augment other treatments, such as antidepressants, but there is evidence, for example in alcoholism, that naltrexone monotherapy is equally effective as combination treatment, while reducing the likelihood of side effects or drug interactions.[14] Furthermore, naltrexone does not appear to interfere with sexual function and has even been proposed as treatment for erectile dysfunction.[18] However, there could also be advantages for combination treatment. Here, we found an increase of anxiety symptoms, which could be attributed to the interruption of treatment with fluoxetine or to a direct effect of naltrexone, as has been suggested in other studies.[19] In conclusion, while naltrexone monotherapy could be a well-tolerated, safe, and effective medication for sexual compulsions, randomized and controlled trials are necessary to confirm effectiveness and safety.

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