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Adolescent kleptomania treated with naltrexone A case report

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■ **Abstract** Kleptomania, an often secret inability to resist the impulse to steal objects not needed for personal use or their monetary value, is an underrecognized disorder that is unknown to many clinicians. Kleptomania has gone virtually unmentioned in the adolescent literature, despite the fact that kleptomania often has its onset during adolescence. This report presents a

case of an adolescent with kleptomania who responded to naltrexone. The clinical features of kleptomania are reviewed, as are available data on the treatment of this distressing and often disabling disorder.

■ **Key words** Kleptomania – Adolescence – Naltrexone – Opioid antagonists

Introduction

Kleptomania is an often secret psychiatric disorder that has been described worldwide for almost two centuries [16]. Yet this distressing and often debilitating disorder is still underrecognized and unknown to many clinicians. Of note, kleptomania has received virtually no mention in the adolescent psychiatric literature, despite preliminary evidence that its onset usually occurs during adolescence [6, 18].

Kleptomania is currently classified by DSM-IV as an impulse-control disorder. Kleptomania is defined by three essential features: 1) failure to resist an impulse to steal unneeded objects; 2) an increasing sense of tension or arousal before committing the theft; and 3) an experience of pleasure, gratification or release at the time of committing the theft [1]. In addition, the symptoms must not be better accounted for by another mental disorder (e. g., conduct disorder, eating disorder, attention deficit hyperactivity disorder).

Although long presumed to be a rare disorder, it has been argued that kleptomania may be more common than realized because it is a secret disorder [16]. Preliminary data suggest that it may frequently occur among patients with mood disorders, obsessive compulsive dis-

order, eating disorders, and social phobia [17]. However, kleptomania often goes undiagnosed and untreated. Reasons for this appear to include shame about the symptoms and reluctance to reveal themselves and clinicians' lack of familiarity with kleptomania.

Although a number of therapeutic strategies have been proposed for the treatment of kleptomania, no formal drug studies for kleptomania are found in the literature. A small number of case reports of adult patients cite improvement using tricyclic antidepressants [16], selective serotonin reuptake inhibitors (SSRIs) [4, 13, 15], electroconvulsive therapy [16], lithium [2] or valproate [10]. In this report, we describe a case of adolescent kleptomania, without comorbidity, who was successfully treated with the opioid antagonist naltrexone.

Case report

Susan is a 13-year-old Caucasian female who was brought to an impulse control specialty clinic by her mother for her repeated acts of stealing. Susan had started stealing approximately five years earlier. Initially, she would take candy from her two older sisters or money from her parents, usually to buy candy or toys. During the five years, however, Susan began stealing

from neighbors' homes, often taking peculiar items that even she could not explain (e. g., empty bottles, a hammer, sprinkler, dog leash). Susan also started stealing from school. At one time she had seven basketballs in her room, all of which she had taken from school although she had never used them. Susan's repeated thefts from classmates (e. g., notebooks, socks, pens) had left her socially isolated and without friends. Other than the stealing behavior, Susan exhibited no other behavioral symptoms.

Susan described her problem as "horrible – I can't control it and no one believes me. They all think I'm bad. Maybe I am. I try to stop myself. I don't even want the stuff." Susan reported having urges to steal almost every day. When an urge occurred, she also reported having no ability to resist it. Susan did not know what triggered her urges. In fact, she reported often waking up in the morning and wanting to steal something. As a result of the stealing, Susan avoided almost all social interactions and, despite having been an excellent student throughout school, she began failing courses at school.

Prior to being seen in our clinic, Susan had been tried on several antidepressants over the last five years (a two-month trial of fluoxetine 60 mg/day, a four-month trial of citalopram 40 mg/day, a four-month trial of fluvoxamine 250 mg/day) all without a change in her kleptomania symptoms. Susan's previous psychiatrists had not mentioned the diagnosis of kleptomania to either Susan or her parents. Instead, they had diagnosed her as being depressed and angry. Also prior to our initial evaluation, Susan had undergone weekly cognitive-behavioral therapy for 10 weeks, again without any change in her kleptomania symptoms.

The patient's developmental history was unremarkable. Her medical history included a tonsillectomy at age five years. No other significant illnesses were reported. Susan's family history was devoid of any known psychiatric illnesses. Physical examination was also unremarkable. An evaluation for sexual or physical abuse or neglect was negative.

Susan was evaluated by the first author, and kleptomania was diagnosed in a clinical assessment using DSM-IV criteria. Based on a two-hour diagnostic interview, the patient did not meet criteria for major depressive disorder, bipolar disorder, conduct disorder, oppositional defiant disorder, or an eating disorder. As part of the initial visit, the diagnosis of kleptomania was discussed with Susan and her parents. No other symptoms that were consistent with other impulse control disorders were reported.

After Susan and her parents were informed about possible side effects, she consented to the off-label use of the medication. Susan was informed that the goal of the medication was to decrease her stealing behavior. Baseline liver function tests (LFTs) were performed, and Susan was started on naltrexone 12.5 mg/day. Susan's

weight was 44.5 kg. After five days and without apparent change in symptoms, the dose was increased to 25 mg/day. Susan reported feeling a reduction in her urges to steal and a decrease in the anticipatory anxiety she felt before stealing. Susan felt she could finally resist her urges to steal more easily. After two weeks on 25 mg/day and still reporting symptoms, the naltrexone was increased to 50 mg/day. After two weeks on 50 mg/day, Susan reported that she was able to go without stealing for the entire two-week period, something she had been unable to do for approximately five years. Susan denied side effects from the medication, except for mild nausea the first three days after starting the medication.

The first author met with Susan once each week for forty-five minutes per visit to discuss changes in symptoms. Susan was compliant with medication. Although quite embarrassed about her behavior, Susan was always forthcoming with information regarding her stealing behavior. In fact, she kept a daily journal of frequency of urges, intensity of urges, and items stolen. Supportive therapy was provided to Susan during these medication follow-up visits. Susan's parents were also seen each week separately from Susan to provide details concerning stealing behavior. No other significant events in the family were reported during the time of medication adjustment. No other psycho-social interventions were offered.

After four weeks on 50 mg/day, Susan's parents discontinued treatment because they were on vacation and ran out of medication. Within two days of stopping the medication, Susan reported that her urges to steal returned with the same intensity they had prior to treatment. Susan was restarted on her medication immediately after returning from the vacation. After three days of restarting the medication, Susan's symptoms again went into remission. Prior to this medication, Susan had never had a remission of her symptoms for approximately the last five years. Susan has been on naltrexone 50 mg/day for 22 weeks since reinstatement of her medication. She has not experienced a return of her kleptomania symptoms and the dose has not been adjusted.

Discussion

Two points make this case of interest to clinicians. First, adolescents who steal may be suffering from kleptomania, not simply a behavioral disturbance. This diagnostic distinction is important because patients with kleptomania suffer intense shame and distress secondary to their illegal activity. Adolescents with kleptomania need to know that, although their actions are not acceptable, they are not "bad" people; instead, they have a mental illness. The distinction between an extremely maladaptive pattern of behavior and a true compulsion, however, is

often difficult to make. Given the social, personal, and legal repercussions of disorders such as kleptomania [6], a diagnosis of kleptomania must always be made cautiously.

Although no series of adolescents with kleptomania have been published, this case suggests that the clinical features of kleptomania in adolescence may be similar to those in adults. Although adolescents may exhibit their first signs of kleptomania by stealing items they want (as Susan did with the candy), patients with kleptomania will also steal items they do not want or need (Susan progressed to stealing unnecessary items) [6, 16]. It is the lack of control over the behavior, not the items stolen, that characterizes kleptomania. In this respect, again Susan's presentation is consistent with that seen in adults: feeling a loss of control over behavior, frequent urges to steal, and shame and guilt after the act of stealing [6, 16].

The second important point for clinicians is that, at least in this case, the symptoms of kleptomania were treatable. Susan had failed three separate trials of antidepressant treatment and one course of cognitive-behavioral therapy. Although various antidepressants and mood stabilizers have been effective in reducing the symptoms of kleptomania in adults [10, 15, 16], there have been no systematic studies of pharmacotherapy in either adults or adolescents with kleptomania. Thus, the failure of these previous trials may be due to the insufficient evidence we have concerning dosage and length of medication trial when treating kleptomania.

Naltrexone, an opioid antagonist, is approved by the United States Food and Drug Administration for the treatment of alcoholism. Naltrexone has been effective in reducing the frequency and amount of drinking when 50 mg/day of naltrexone is combined with supportive therapy [3, 19]. Naltrexone is only available in 50 mg tablets and so dosing is once daily. Naltrexone has a half-life of approximately eight to ten hours.

Naltrexone may be effective in treating kleptomania behavior because of its ability to reduce urges. The essential feature of kleptomania is the failure to resist an impulse that is harmful to the self or others. Naltrexone has been effective in treating urge-driven disorders such as pathological gambling [8, 9], alcoholism [3, 19, 21],

borderline personality disorder with self-injurious behavior [20], and cocaine abuse [5]. Preclinical and clinical studies demonstrate that the underlying biological mechanism of urge-based disorders may involve the processing of incoming reward inputs by the ventral tegmental area-nucleus accumbens-orbital frontal cortex (VTA-NA-OFC) circuit [7, 11, 12]. This circuit then influences behavior by modulating animal and human motivation (e. g., urges, cravings). Dopamine may also play a major role in the regulation of this region's functioning [7, 11, 12].

Urges linked to the experiencing of reward and pleasure represent clinical targets in impulse-control disorders. Studies of naltrexone in the treatment of pathological gambling have also demonstrated efficacy in reducing urges [8, 9]. The primary pharmacological action of naltrexone within the central nervous system is the antagonism of the mu-opioid receptor, the site at which beta-endorphins, morphine and heroin act as endogenous and exogenous agonists. The mu-opioid system is involved in the processing of reward, pleasure and pain. The effects of naltrexone across these diagnostic categories may be due to the drug's modulation of dopamine function within the VTA-NA-OFC via the antagonism of opioid receptors in the VTA [7, 14]. Because of naltrexone's relatively short half-life, it is not surprising, therefore, that Susan's urges returned within only two days of discontinuing the medication.

The present case report suggests that naltrexone may be effective in treating kleptomania. Although stealing may be common in adolescents, kleptomania should be diagnosed when a patient describes urges to steal that seem uncontrollable. Susan's description of her urges to steal and the unwanted items she stole are consistent with that seen in adult kleptomaniacs at our clinic [6]. To make the diagnosis, it is often necessary to inquire about kleptomania symptoms; adolescents may be reluctant to divulge details because of self-consciousness and shame. Although much remains to be learned about kleptomania, it is important that it be recognized and treated in adolescents, who may be particularly vulnerable to the development of this often secret and under-recognized disorder.

References

1. American Psychiatric Association (1994) Diagnostic and statistical manual of mental disorders (DSM-IV). 4th ed. APA, Washington, DC
2. Burstein A (1992) Fluoxetine-lithium treatment for kleptomania. *Journal of Clinical Psychiatry* 53:28–29
3. Chick J, Anton R, Checinski K, Croop R, Drummond DC, Farmer R, Labriola D, Marshall J, Moncrieff J, Morgan MY, Peters T, Ritson B (2000) A multicentre, randomized, double-blind, placebo-controlled trial of naltrexone in the treatment of alcohol dependence or abuse. *Alcohol and Alcoholism* 35:587–593
4. Chong SA, Low BL (1996) Treatment of kleptomania with fluvoxamine. *Acta Psychiatrica Scandinavica* 93:314–315
5. Corrigan WA, Coen KM (1991) Opiate antagonists reduce cocaine but not nicotine self-administration. *Psychopharmacology* 104:167–170

6. Grant JE, Kim SW (2002) Clinical features and associated psychopathology of 22 patients with kleptomania. *Comprehensive Psychiatry* (in press)
7. Kim SW (1998) Opioid antagonists in the treatment of impulse-control disorders. *Journal of Clinical Psychiatry* 59:159–164
8. Kim SW, Grant JE, Adson D, Shin YC (2001) Double-blind naltrexone and placebo comparison study in the treatment of pathological gambling. *Biological Psychiatry* 49:914–921
9. Kim SW, Grant JE (2001) An open naltrexone treatment study in pathological gambling disorder. *International Clinical Psychopharmacology* 16:285–289
10. Kmetz GF, McElroy SL, Collins DJ (1997) Response of kleptomania and mixed mania to valproate. *American Journal of Psychiatry* 154:580–581
11. Koob GF (1992) Drugs of abuse: anatomy, pharmacology and function of reward pathways. *Trends in Pharmacological Science* 13:177–184
12. Koob GF, Bloom FE (1988) Cellular and molecular mechanisms of drug dependence. *Science* 242:715–723
13. Kraus JE (1999) Treatment of kleptomania with paroxetine. *Journal of Clinical Psychiatry* 60:793
14. Matthews RT, German DC (1984) Electrophysiological evidence for excitation of rat ventral tegmental area and dopamine neurons by morphine. *Neuroscience* 11:617–625
15. McElroy SL, Keck PE, Pope HG, Hudson JI (1989) Pharmacological treatment of kleptomania and bulimia nervosa. *Journal of Clinical Psychopharmacology* 9:358–360
16. McElroy SL, Pope HG, Hudson JI, Keck PE, White KL (1991a) Kleptomania: a report of 20 cases. *American Journal of Psychiatry* 148:652–657
17. McElroy SL, Hudson JI, Pope HG, Keck PE (1991b) Kleptomania: clinical characteristics and associated psychopathology. *Psychological Medicine* 21:93–108
18. McElroy SL, Keck PE, Phillips KA (1995) Kleptomania, compulsive buying, and binge-eating disorder. *Journal of Clinical Psychiatry* 56:14–26
19. O'Malley SS, Jaffe AJ, Chang G, Schottenfeld RS, Meyer RE, Rounsaville B (1992) Naltrexone and coping skills therapy for alcohol dependence. A controlled study. *Archives of General Psychiatry* 49:881–887
20. Sonne S, Rubey R, Brady K (1996) Naltrexone treatment of self-injurious thoughts and behaviors. *Journal of Nervous and Mental Disease* 184:192–195
21. Volpicelli JR, Watson NT, King AC, Sherman CE, O'Brien CP (1995) Effect of naltrexone on alcohol "high" in alcoholics. *American Journal of Psychiatry* 152:613–615