HUMAN PSYCHOPHARMACOLOGY
Hum. Psychopharmacol. Clin. Exp. **14**, 583–585 (1999)

Naltrexone Treatment in Kleptomanic Patients

PINHAS N. DANNON*, IULIAN IANCU and LEON GRUNHAUS
Chaim Sheba Medical Center, Anxiety Disorders Clinic, 52621 Tel Hashomer, Israel

Kleptomania is an impulse control disorder and that can be treated with the combination of pharmacotherapy and psychotherapy. The most common drug regimens include antidepressants, especially SSRIs and mood stabilizers. However, the low efficacy rates with these drugs urge research for new treatment regimens. Natrexone, an opioid receptor antagonist, which has been used in the treatment of substance abuse and impulse control disorders, may be also useful in the treatment of kleptomania. In this study we report two kleptomanic patients successfully treated with naltrexone.

KEY WORDS — impulse control; kleptomania; SSRIs; naltrexone

INTRODUCTION

Kleptomania is an impulse control disorder, characterized by a recurrent failure to resist impulses to steal objects that are not needed for personal use or for monetary value. An increasing sense of tension immediately before committing the theft, and a feeling of pleasure, gratification or relief at the time of the act are the other diagnostic criteria for kleptomania (DSM-IV; APA, 1994). In ICD-10 kleptomania is defined by repeated failure to resist impulses to steal objects that are not required for personal use of monetary gain. The objects may instead be charged, given away or hoarded (WHO, 1992).

Hudson and Pope (1990) proposed a relationship between kleptomania and mood disorders. McElroy *et al.* (1989, 1995) and Hollander and Wong (1995) propose that kleptomania is not only an impulse control disorder, but that it is also related to obsessive-compulsive spectrum disorders (i.e. eating disorders, compulsive buying, pyromania, pathological gambling, and trichotillomania).

The most common therapeutic intervention used in kleptomania is a combination of pharmacological and psychological treatments (Dannon *et al.* 1997). Pharmacological treatment of kleptomania is based on antidepressants and/or mood stabilizers. Selective Serotonin Reuptake Inhibitors (SSRIs), fluoxetine, fluvoxamine, paroxetine and clomipramine, have already demonstrated efficacy in kleptomanic patients (McElroy *et al.* 1989, 1995; Hollander and Wong, 1995). However, Kindler *et al.* (1997) reported emergence of kleptomania due to SSRI treatment. Finally, kleptomania has been shown to respond to electroconvulsive therapy (ECT) in three cases (McElroy *et al.*, 1995).

Naltrexone is a long acting, competitive opioid antagonist principally of Mu-, but also of Kappa- and lambda-opioid receptors in the central nervous system used mainly in the treatment of alcohol and opiates dependencies (Volpicelli *et al.*, 1995; Kim, 1998). Some case reports and open label studies imply the possible use of naltrexone in impulse control disorder, like pathological gambling (Crockford and el-Guebaly, 1998), and trichotillomania (Christenson, 1995), as well as in the obsessive compulsive spectrum disorders such as bulimia and anorexia nervosa (Marazzi *et al.*, 1995; Kim, 1998).

In this report we present the case histories of two patients who received naltrexone for the treatment of kleptomania (as monotherapy or as an augmentation to paroxetine) and improved significantly while on this agent.

CASE 1

Ms G, a 32 year-old mother of twins, was sent to our outpatient clinic due to a history of obsessive-compulsive disorder. She also reported depressive symptoms such as insomnia, severe fatigue,

*Correspondence to: P. N. Dannon, Chaim Sheba Medical Center, Anxiety Disorders Clinic, 52621 Tel Hashomer, Israel. Tel: +9723-530-3332. Fax: +9723-535-3807. E-mail: dannon @ibm.net

CCC 0885–6222/99/080583–03$17·50

hyperphagia, depressive mood and suicidal thoughts. Ms G was married to an alcoholic and the relationship was problematic since the beginning of the marriage. The patient's husband had left the home a few months before.

Ms G was given paroxetine up to 60 mg/d and she partially responded to the drug treatment. The patients also received a psychological intervention with dynamically oriented psychotherapy. After a gradual improvement in her mood and obsessive-compulsive symptoms, she began to talk about her 'biggest problem'. The patient described kleptomanic behaviour from the age of 16, such as stealing small amounts of food (i.e. a tomato or an apple) from grocery stores. She also revealed that after her stressful urge to steal something, a sense of shame and guilt appeared after the act. She used to throw the stolen food into the garbage.

Lithium was added to the paroxetine treatment, but the patient developed vomiting and diarrhoea. Although the blood lithium level was 0.5 meq/l, the medication was stopped and valproic acid was added as a treatment for the impulsive behaviour. The patient did not complain about side effects, however 60 mg/d parotextine and 1200 mg/d valproic acid (with blood level of 82 meq/l) for 8 weeks could not abate the kleptomanic behaviour.

A course of cognitive behaviour therapy was started instead of the dynamically oriented psychotherapy. This 5 week-twice weekly intervention did not interrupt the kleptomanic behaviour either. Then, 50 mg/d naltrexone was added to the paroxetine treatment and in a 1-week period the patient responded well and stopped stealing. Three months later the patient completed the cognitive behaviour therapy course, divorced from her husband and returned to her parents home. She and her family reported a full remission during the 10-month follow-up.

CASE 2

Mr N, a 34 year-old, divorced, engineer requested a consultation with a psychiatrist after 6 months of problem-oriented psychotherapy due to problems with his family. On the first visit he complained about his impulsive character and his gambling behaviour. When playing cards, he knew that he could lose, but he felt the excitement and his heartbeat made him continue. He continued to gamble and has lost great amounts of money. He also said that he felt the same when he stole razors from supermarkets. He always threw the razors aways after stealing them, because of feelings of guilt. Also, when he stole things, he felt the heart beat and enjoyed the act.

The patient was diagnosed as suffering from a combination of impulse control disorders: pathological gambling and kleptomania. He started to receive paroxetine 10 mg/d. Mr N stopped the treatment after 5 days because of nausea, headaches and anxiety and after that, two more trials with fluoxetine and clomipramine were interrupted due to side effects. Addition of lorazepam to these drugs also failed. The patient did not agree to try mood stabilizer treatment such as lithium and valproic acid and cancelled the psychotherapy sessions with his psychotherapist. After 1 month of treatment interruption, the patient called the psychiatrist and asked for a reevaluation. After the reevaluation the patient agreed to receive naltrexone. Naltrexone was started 25 mg/d for the first 2 weeks. The patient complained of dizziness and headaches, but he was willing to continue the naltrexone treatment. The naltrexone dose was gradully increased to 100 mg/d; after 2 weeks on 100 mg/d of naltrexone the patient reported a partial remission. He first stopped stealing razors and after 2 months of naltrexone treatment the patient could control his gambling behaviour. He reported 9 months of full remission at his last visit at the anxiety disorders clinic.

DISCUSSION

We report our experience with naltrexone in two kleptomanic patients. Both of them experienced an improvement in the kleptomanic behaviour after naltrexone administration, and a remission was attained in both cases. A low profile of side effects was noted. Although kleptomania has been reported to respond to several drugs (i.e. SSRIs, mood stabilizers) and ECT, the rate of response is moderate and in several cases these treatments could even increase impulsivity and increase the kleptomanic behaviour (Kindler *et al*., 1997). Thus, additional therapies are needed with better efficacy and a safer profile of side effects.

Recent studies suggests that opioid antagonists may reduce urges and thus might be useful in the treatment of impulse control disorders such as pathological gambling (Kim, 1998). In a similar vein, in kleptomania naltrexone may reduce the urge-related symptoms and decrease the problematic behaviour of kleptomania. Several possible pathophysiological explanations could underlie the

efficacy of naltrexone in kleptomania. Naltrexone inhibits dopamine release in the nucleus accumbens through the disinhibition of GABA input to the dopamine neurons in the ventral tegmental area (Kim, 1998). Naltrexone may reduce the urge symptoms through its action in the ventral tegmental area–nucleus accumbens–medial orbital frontal cortex circuit in impulse control disorders (Volpicelli *et al*., 1995). Finally, naltrexone probably reduces both urges and the subjective experience of pleasure seen in impulse control disorders.

More studies, especially with controlled designs, are required to confirm our preliminary findings. Moreover, the evaluation of newer opioid antagonists in impulse control disorders may provide further insight into the pathophysiology and clinical management of impulse control disorders.

REFERENCES

APA (1994). *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition. American Psychiatric Association, Washington DC.

Christenson, G. A., Faber, R. J., de Zwaan, M., Raymond, N. C., Specker, S. M., Ekern, M. D., Mackenzie, T. B., Crosby, R. D., Crow, S. J. and Eckert, E. D. (1994). Compulsive buying: descriptive characteristics and psychiatric comorbidity. *J. Clinical Psychiatry*, **55**, 5–11.

Crockford, D. N. and el-Guebaly, N. (1998). Naltrexone in the treatment of pathological gambling and alcohol dependence. *Canadian Journal of Psychiatry*, **43**, 86.

Dannon, P. N., Lepkifker, E., Iancu, I., Ziu, R., Matar, M. and Kotler, M. (1997). Kleptomania: an irresistible urge to steal: A review of the literature. *Acta Psychiatrica Belgica*, **97**, 95–101.

Hollander, E. and Wong, C. M. (1995). Obsessive-compulsive spectrum disorders. *Journal of Clinical Psychiatry*, **56**(suppl.4), 3–6.

Hudson, J. I. and Pope, H. G. (1990). Affective spectrum disorders. *American Journal of Psychiatry*, **147**, 552–564.

Kim, S. W. (1998). Opioid antagonists in the treatment of impulse-control disorders. *Journal of Clinical Psychiatry*, **59**, 159–164.

Kindler, S., Dannon, P. N., Iancu, I., Sasson, Y. and Zohar, J. (1997). Emergence of kleptomania during treatment for depression with serotonin reuptake inhibitors. *Clinical Neuropharmacology*, **20**, 126–129.

Marrazzi, M. A., Bacon, J. P., Kinzie, J. and Luby, E. D. (1995). Naltrexone use in the treatment of anorexia nervosa and bulimia nervosa. *International Clinical Psychopharmacology*, **10**, 173–176.

McElroy, S., Keck, P. E., Pope, H. G. and Hudson, J. I. (1989). Pharmacological treatment of kleptomania and bulimia nervosa. *Journal of Clinical Psychopharmacology*, **9**, 358–360.

McElroy, S., Keck, P. E. and Phillips, K. A. (1995). Kleptomania, compulsive buying, and binge-eating disorders. *Journal of Clinical Psychiatry*, **56**(suppl.4), 14–26.

Volpicelli, J. R., Clay, K. L., Watson, N. T. and O'Brien, C. P. (1995). Naltrexone in the treatment of alcoholism. *Journal of Clinical Psychiatry*, **56**(suppl.7), 39–44.

WHO (1992). *The ICD-10 Classification of Mental and Behavioural Disorders*. WHO, Geneva.

