

## **Improved Symptoms of Kleptomania with 50 MG Daily of Naltrexone: A case review**

### **Introduction**

With an estimated prevalence of about 0.6% of the general population, kleptomania describes unsuccessful attempts to resist the impulse to steal items which more often than not are not of value to the perpetrator [1,2]. In addition, there is an elevated level of tension prior to and a sense of satisfaction after the act of theft [4]. It is reported that about 4% to 24% of shoplifters may actually have kleptomania, classified as an impulse control disorder in DSM-V kleptomania is rarely talked about or brought to a physicians' attention because of the associated stigma and patients come in contact with the law more often than they would a mental health professional [1,2,3,4,7]. The exact pathophysiology of kleptomania is poorly understood and no formal treatment is reported [1,2]. We present a patient fulfilling DSM-V criteria for kleptomania with comorbid major depression who did very well on what is considered a low dose naltrexone but not on antidepressant alone.

### **Case presentation**

Patient is a 58-year-old Caucasian female hair stylist who met the Diagnostic and Statistical Manual of Mental Disorder [DSM-V] diagnostic criteria for kleptomania and Major Depressive Disorder [MDD]. Both were already very significant with legal complications of kleptomania when she was in her 30s and reported trying several medications and Cognitive Behavioral Therapy [CBT] without success. It took her a very long time to access mental health care because of "shame, because I have had it since I was a teenager" she felt then and took a lot of courage to talk to a psychiatrist in her 30s. She reported having tried Fluvoxamine, Paroxetine and Fluoxetine. Response to 300 mg daily of immediate release Fluvoxamine and 60 mg daily of Paroxetine for several months at a time was poor, she however showed significant improvement in depression on 80 mg daily of Fluoxetine as shown by a change in the Hamilton Depression Rating Scale [HAM-D] from 40 to 5 over a 6-week period. She did not report any change in the core symptoms of kleptomania as evidenced by a steady rating on the Kleptomania Symptoms Assessment Scale [K-SAS] of 37 and 34 respectively on 2 different occasions while on treatment. After discussing with patient, she agreed to commence naltrexone and was started on 50 mg daily. Liver function test was within normal limits and stayed normal throughout the duration of treatment. Mild nausea was the only reported side effect which abated after a couple of days. About 3-4 weeks on patient reported an improvement in the urge to steal and stealing behavior for the first time in her life. Taking a dollar out of husband's pocket was the only reported behavior in the last year. K-SAS score dropped to less than 11 and the Global Assessment of Function rose from a 51 to 80. She is currently stable and doing well and maintained the same job since commencing naltrexone.

### **Discussion**

Patients with kleptomania have an irresistible and distressful urge to steal insignificant items, behavior is mostly impulsive rather than preplanned, hence its DSM-V classification under the disruptive, impulse control and conduct disorder [1,2]. Commoner in females and though begin in adolescent years could linger into adulthood as seen in our patient [3]. About 3.8% of patients with major depression have comorbid kleptomania as seen in our patient [3]. Reported to be more prevalent in patients with mood disorders as seen in our patient, also occur frequently in patients with obsessive compulsive disorder, eating disorder and social phobia [4]. The exact pathophysiology is not understood, but could be as a result of the reward and dopaminergic systems. Genetics is reported to play a significant role and its neurobiology appears to be similar to that of substance use disorders and addiction hence, the efficacy seen with naltrexone [1,2,5,6]. Some authors believe these patients steal to appease their opioid system, this way "self-medicating" anxiety and depression [1,2]. No formal or approved pharmacotherapy have been reported, but anecdotal use of tricyclics, lithium, clomipramine, trazodone, Second Generation Antipsychotics [SGA], valproate and SSRIs have been documented in literatures [1,2,3]. Several SSRIs and behavioral therapy were used in our patient for several years without any appreciable symptomatic improvement. Studies have shown significant improvement in core symptoms of kleptomania [and some urge impelled disorders like pathological gambling and self-injurious behaviors] albeit with higher doses of naltrexone [1,2,3]. Several studies also showed significant improvement in core symptoms of kleptomania with medium to high dose naltrexone and one study did show a reduction of symptoms in greater than 75% and complete abatement of symptoms in about 40% of patients treated with naltrexone [3], our case is relevant because this patient showed significant improvement in symptoms on just 50 mg of naltrexone. The mean effective dose as far as we know is about 148 mg per day, most patients tolerated it well and most commonly

reported side effects was nausea as seen in our patient [7]. We believe naltrexone was effective via its ability to reduce urges in the reward circuitry. It antagonizes the mu-opioid reward system which modulates reward, pleasure and pain. Naltrexone also inhibits dopaminergic neurons in the ventral tegmental area which plays a huge role in reward system also [3,6]. The GABA system has been implicated in impulse related disorders and also believed to play a role in kleptomania, and like any other impulse control disorder abnormalities of the serotonergic system may also play a role [3,4]. This could explain the high comorbidity with major depression as seen in our patient [4].

Though reported models of kleptomania include behavioral addiction, affective spectrum, attention deficit hyperactivity and obsessive and compulsive models, the addictive model has drawn a huge attention from recent research because of favorable response to naltrexone [8]. One double blind, placebo controlled study demonstrated statistically significant reduction in stealing urges and behavior in kleptomania [9]. Physician should consider naltrexone alongside psychotherapy in the treatment of kleptomania, this appears to be very effective even in low dose and tolerable with normal liver function throughout the treatment period in our patient. Further large scale, controlled and randomized including comparative studies are required.

**Conflict of interest: None to report**

**Sponsorship: None**

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