

Corresponding address: N.A. Uvais

Department of Psychiatry, Iqraa International Hospital and Research Centre, Calicut, India

Phone: +9562685573

E-mail address: druvaisna@gmail.com

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Declaration of interest:

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## Acute Urinary Retention Related with Sublingual Buprenorphine Administration



To the Editor,

Suboxone, a sublingual tablet consisting of buprenorphine/naloxone is an effective and well-tolerated treatment option in the opioid dependence<sup>1</sup>. Rate of urinary retention with buprenorphine is less than 1%, particularly with intrathecal and epidural delivery<sup>2</sup>. However, it is rare with sublingual administration.

We decided to write this report after our observation of a 20-year-old male patient, who was admitted to AMATEM (Alcohol and Substance Treatment and Education Center) clinic with the diagnosis of opioid addiction. The patient had a 2-year-history of abusing heroin. His use was progressed to daily intravenous pattern within 6 months. His medical history was not significant. In his urine analysis, benzodiazepine and opioid levels were over the normal range. In order to prevent fatal drug interactions between suboxone and benzodiazepine, suboxone treatment was not started on until benzodiazepine vanished in urine sample. As a result, suboxone treatment could be started on the seventh day of admission. The initial dose was 4 mg/1 mg, titrated up to 8 mg/2 mg on day 2. Since the patient complained of inability to urinate and suprapubic

discomfort on day 4, urethral catheterization was performed with 16" Foley catheter and 2000 cc urine was drained. The microscopic examination of the urine was normal and urine culture was negative. Result of the urine drug screen was also negative. The serum creatinine level was in normal range. He denied any previous urinary symptoms. Urology was consulted and Suboxone treatment was stopped. The patient was observed with catheter for three days without trouble. After removal of catheter, the patient was able to complete a trial void. No further urological complaint of the patient was present after discontinuation of suboxone treatment. After the event, the patient refused a retrial of buprenorphine and detoxification was completed with symptomatic treatment.

It is known that one of the significant adverse events related with opioids is urinary retention. Although urinary retention mechanism is not completely known, it was shown in the literature that both mu and delta opioid receptors are involved in bladder realization and impaired sensations by inhibiting the sensory input at the level of the dorsal horn and periaqueductal gray matter (PVG)<sup>3</sup>. As being a partial agonist of  $\mu$ -opioid receptor, buprenorphine may cause diminishing of bladder sensations and delay in urination threshold, thus increasing compliance and bladder capacity via  $\mu$ -opioid receptor activation. The mode of opioid delivery also appears to play a role in the risk of urinary retention; which is found higher with intravenous and epidural administration<sup>4</sup>. However, urinary discharge problems associated with sublingual buprenorphine are rarely reported. The first case was a 66-year-old male patient reported by Murray \*. Recently, acute urinary retention after sublingual buprenorphine administration of a 49-year-old male patient with a past history of benign prostatic hyperplasia (BPH) has been reported<sup>5</sup>. In our case; unlike others, the patient is rather young and has no risk of BPH. Management of acute urinary retention in patients without BPH involves Foley catheterization to allow the offending agent time to be excreted. Immediate catheterization is recommended; otherwise the bladder may excess its functional capacity. This information is important for physicians who prescribe buprenorphine to monitor for acute urinary retention and treat appropriately.

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**Neslihan Altunsoy<sup>1</sup>,  
Asli Enez Darcin<sup>2</sup>,  
Nesrin Dilbaz<sup>3</sup>**

<sup>1</sup>Boylam Psychiatric Hospital, Ankara - Turkey

<sup>2</sup>Istanbul Kanuni Sultan Suleyman Training and Research Hospital, Psychiatry Department, Istanbul - Turkey

<sup>3</sup>Üsküdar University, Istanbul - Turkey

Corresponding address: Neslihan Altunsoy

Özel Boylam Psikiyatri Hastanesi, Ankara, Türkiye

Phone: +90-505-939-0167

E-mail address: drneslihanaltunsoy@gmail.com

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## Risperidone and Lithium for Pathological Laughing



To the Editor,

Pathological laughing and crying (PLC) is a situation that emerges as exaggerated and inappropriate laughing or crying episodes or both of them. It suddenly appears without any stimuli<sup>1</sup>. We diagnosed a case with pathological laughing who was previously treated with sufficient dose and duration of clomipramine, sertraline, and aripiprazole. However, no response was obtained from these treatments until choosing lithium and risperidone.

The case was a 21-year-old female graduated from high school; married, housewife with one child. She presented to our clinic with the complaints of four years duration and were unable to control involuntary laughing attacks and anxiety attacks. All these resulted in boredom, restlessness, irritability, with additional causes to family and social problems. Her neurological and psychiatric examination was not remarkable. She was laughing during the interview and examination. She used to laugh at times, but there was no sign of manic thought content during her laughing episodes. She was even laughing in times that she did not feel good. She did not have any medical disease nor reported use of any illicit drugs. There was no history of psychiatric or neurological illness in the family history. Magnetic resonance imaging (MRI) of the brain and electroencephalography (EEG) tests were evaluated as normal. Routine blood tests were normal, as well. The detailed background history of the patient did not show any signs of bipolar disorder with manic or hypomanic episodes. There were no impulse control problems pointing any pathological disorder. Treatment with clomipramine did not provide any positive response despite adequate time and dose. Afterwards, the treatment was replaced with sertraline. Despite of adequate dose and duration, there was just a partial response. Aripiprazole was then added to the treatment. Despite of adequate dose and duration, there was only a