

**APPA 2021 Spring Meeting Medical Student/Resident Poster Presentation**

**Abstract 21-1-05**

**Title:** Tianeptine: a street drug with severe opiate-like withdrawal leading to suicidal ideation

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**Learning Objectives:**

1. Recognize the signs and severity of Tianeptine withdrawal in two patients.
2. Differentiate between withdrawal symptoms of Tianeptine and traditional opioids.

**Introduction:** Tianeptine is considered an atypical antidepressant that exerts its effects via antagonism of mu and delta-opioid receptors, and may increase dopamine release. Some literature has shown that Tianeptine also modulates NMDA and AMPA receptors, while other studies have reported no measurable affinity for these receptors. This medication is closely regulated in various regions including Latin America and Europe but has not been approved for prescription usage in the United States. Due to the lack of regulations along with the loss of the drug's patent in 2012, Tianeptine has been available over the counter, online, and in many gas stations where it is marketed as "Tianna", "Tiamex" and "Zaza". In this paper, we discuss two patients who presented to the hospital with suicidal ideations associated with Tianeptine withdrawal.

**Case 1:**

A 37-year-old male with a PMH of depression and substance abuse of over 15 years presented to the ED due to suicidal ideation (SI) for one week, with plans to overdose on heroin. He had a history of one previous suicide attempt 5 years ago via Clonazepam overdose. The patient acknowledged overwhelming thoughts of fear and depression but denied self-harm or any psychotic symptoms. On mental status examination, he appeared slightly unkempt with decreased eye contact, psychomotor retardation, and depressed mood and affect.

Patient was recently kicked out of halfway house due to abuse of an over the counter "Tianna capsule". The patient stated he had been taking these pills on and off for 3 years, with daily usage over the past three months. He reported starting out taking 5 pills per day and progressed to 30-35 pills per day. The patient described the effects of Tianeptine as "similar to an opiate high", in which he feels carefree, has a sense of euphoria, and experiences improved sleep. He reported craving Tianeptine more than any other drug including heroin. He described his withdrawal symptoms as depression, body aches, insomnia, and restless legs, then he, later on, began experiencing gastrointestinal dysfunction including vomiting, diarrhea, and decreased appetite. He endorsed experiencing visual hallucinations in which he could view and interact with a hologram projection of his cell phone while closing his eyes.

The patient was started on Buprenorphine 0.3 mg tid for 3 days along with Baclofen 10 tid for 3 days. This regimen improved his symptoms significantly, and he was referred to an outpatient substance abuse program and discharged from the hospital after 4 days. He was given a prescription for venlafaxine 75 mg daily along with Quetiapine 100 mg qhs.

## Case 2:

A 23-year-old male with a past medical history of substance abuse, anxiety, and depression presented to the emergency department with suicidal ideations with thoughts of cutting his wrists or obtaining a gun. He denied homicidal ideations or any other symptoms of psychosis. On mental status examination, he appeared slightly unkempt with decreased eye contact, psychomotor retardation, and depressed mood and affect. He reported consuming 12 ounces of vodka earlier in the day and lab results revealed a blood alcohol level of 277mg/dL.

The patient reported he has been struggling with substance abuse for the past three years, and recently started using Tianeptine about three months ago. He first learned of this drug while in recovery and was able to purchase Tianeptine from local gas stations. The first time he used Tianeptine, he took 3 pills and experienced feelings of euphoria lasting approximately 30-60 minutes. He described a sense of warmth and calmness, similar to taking an opioid, but the effects were much shorter acting. After about one week of daily use, he built up a tolerance and was taking about 15 pills every morning with effects lasting up to 2-3 hours. One week prior to admission, the patient stopped taking Tianeptine due to financial limitations and began experiencing withdrawal symptoms within 36 hours. Symptoms included intense muscle aches, an overwhelming sense of depression, rhinorrhea, nausea, and insomnia with associated restless legs.

The patient was started on Buprenorphine 0.3mg tid for 4 days, Baclofen 10 mg tid for 4 days, and Gabapentin 300mg TID for 3 days. By day four, there was a noticeable improvement in symptoms and the patient was discharged from the hospital with an outpatient psychiatric referral. He was prescribed Quetiapine 100mg qhs, venlafaxine 75 mg tid, and vortioxetine 10 mg daily.

**Discussion:** Tianeptine withdrawal should be suspected in patients presenting with opiate withdrawal symptoms with a negative urine drug screen for opiates. Severe depression, restless legs, and visual hallucinations may be additional symptoms of Tianeptine withdrawal compared to opioids. This could be due to the increase in dopamine release that occurs with Tianeptine administration, plausibly resulting in decreased dopamine during withdrawal. Many patients may be taking Tianeptine over the counter without realizing its addictive nature, so it is important to identify and educate patients about the risks associated with Tianeptine use.

## References:

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