

Kratom Induced Catatonia

Mehreen Khan, MD, MHA; Sara Elchehabi, DO; Malik Farooq, MD; Cheryl Hurd, MD, FAPA; Dustin DeMoss, MD, FAPA John Peter Smith Health Network, Fort Worth, Texas

INTRODUCTION

Kratom, also known as Mitragyna speciosa is a tropical tree, commonly used traditionally in parts of Africa and Southeast Asia (Eggleston, 2019). Due to its opioid properties, it is known to be used for fatigue, chronic pain, diarrhea, cough, and opioid withdrawals (Warner, 2016).

CASE

We present a case of a 28-year-old female with past medical history of traumatic brain injury secondary to a motor vehicle accident in 2014, major depressive disorder in remission presented to the emergency department with agitation and altered mental status.

The patient's presentation started two weeks ago with increasing restlessness and aggression. Other symptoms included indecent exposure in public and shouting obscenities.

Day 1:

The patient was difficult to arouse, not following commands, eyes significant for horizontal nystagmus, notable tremors in right hand, diaphoretic warm skin, and ankle clonus. Vitals were grossly unremarkable.

No significant electrolyte or hemodynamic instability. The toxicology workup was unremarkable.

The patient was started on intravenous fluids.

Follow up Day 2:

No change in altered mental status. On examination, the patient was now clenching her jaw and mild drooping of eyelids. Ativan challenge for catatonia was initiated and the patient was given 1 mg IV Ativan. The patient responded after two doses and became alert and oriented, however had a significant deficit in memory from the events prior to admission. Further history obtained revealed excessive use of Kratom for the last two years to help with pain and anxiety.

Follow up Day 3:

Examination revealed dilated pupils but otherwise unremarkable examination.





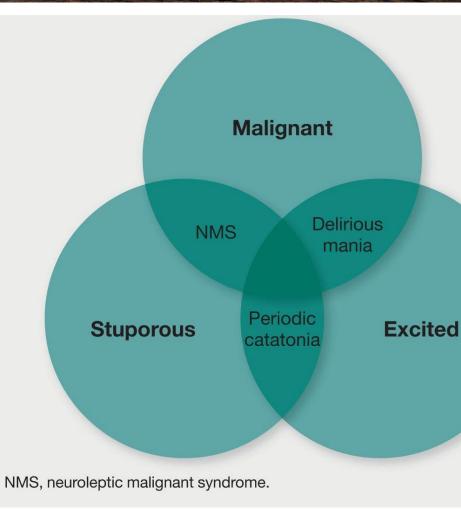


Figure 1 and 2: Kratom plant, formulations <u>www.sccmo.org</u> Figure 3: Differentials for Catatonia <u>www.psychiatrictimes.com</u> Fig 2

Fig 3

RESULTS

Centered in Care Powered by Pride

Patient made full recovery and followed up in behavioral health outpatient. Patient continued to have depressive and anxiety symptoms but denied any psychotic symptoms.

Patient was treated with antidepressants and anxiolytic medications.

DISCUSSION

Differentials included substance-induced catatonia, serotonin syndrome, opioid withdrawal. Given the patient's sudden recovery from the Ativan challenge, catatonia is most likely the cause of the patient's condition. Kratom has shown increased psychotic behaviors in case reports and catatonia can occur in patients with underlying psychiatric conditions (Leong, 2019).

Catatonia is a behavioral syndrome marked by the inability to move normally and can present as hypokinetic or akinetic behavior, diminished response to voice, sudden outbursts in excitement which may suddenly alternate with stupor. It may also include mutism, posturing, behavioral mannerisms, stereotype, or staring (Fink, 2009).

The diagnosis of catatonia often relies on the recognition of its sometimes unusual symptoms. Subtypes include stuporous, excited and malignant. In this case, patient resembled stuporous catatonia which includes motor immobility, staring, mutism, rigidity, withdrawal and refusal to eat. It is important to differentiate these symptoms from similar presentations such as brain lesions, parkinsonism, neuroleptic malignant syndrome, status epilepticus etc.

REFERENCES

1. Eggleston W, Stoppacher R, Suen K, Marraffa JM, Nelson LS. Kratom Use and Toxicities in the United States. Pharmacotherapy. 2019 Jul;39(7):775-777. doi: 10.1002/phar.2280. Epub 2019 Jun 13. PMID: 31099038.

2. Fink, M., & Taylor, M. A. (2009). The Catatonia Syndrome. *Archives of General Psychiatry*, *66*(11), 1173. doi:10.1001/archgenpsychiatry.2009.141

3. Leong Bin Abdullah MFI, Singh D, Swogger MT, Rahim AA, Vicknasingam B. The prevalence of psychotic symptoms in kratom (Mitragyna speciosa Korth.) Users in Malaysia. Asian J Psychiatr. 2019 Jun;43:197-201. doi:

10.1016/j.ajp.2019.07.008. Epub 2019 Jul 5. PMID: 31302592.
4. Warner ML, Kaufman NC, Grundmann O. The pharmacology and toxicology of kratom: from traditional herb to drug of abuse. Int J Legal Med. 2016 Jan;130(1):127-38. doi: 10.1007/s00414-015-1279-y. Epub 2015 Oct 28. PMID: 26511390.