

Long-Term Buprenorphine Treatment for Kratom Use Disorder: Case Series

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What is Kratom?

Kratom (*Mitragyna speciosa*) is a herbal supplement available in multiple forms, including leaves, powder, extract, pills, and capsules.



Most importantly, Kratom is composed of:

- **Mitragynine:** a partial agonist at the mu-opioid receptors and an antagonist at the kappa-opioid receptors.
- **7-hydroxymitragynine:** an opioid receptor agonist at the mu-opioid receptors and antagonist at the kappa-opioid receptors

Background

Opioid overdose death rates have been increasing in the past few years, accounting for 47,600 American deaths in 2017.

More recently, there has been an increased use of alternative substances, including Kratom, which can also produce central nervous system effects.

Opioid agonist therapy with buprenorphine, a partial mu-opioid receptor agonist, has been identified as an effective treatment modality for many illicit substances.

- However, current literature includes only a few, small (sample sizes 1-2 patients) case reports regarding treating Kratom use disorder with buprenorphine.

The Problem

Increasing reports of Kratom use in the United States due to: legal status, addictive potential, increasing popularity, comparable price, accessibility, use for pain and withdrawals

Regular Kratom users become dependent, and/or experience cravings and withdrawals.



<5 grams
Energized



5 - 15 grams
Euphoric



>15 grams
Sedated

The purpose of this case series is to further explore the efficacy of buprenorphine treatment for individuals with Kratom use disorder, using a larger sample size.

Methodology

Patients were included in this case series if they identified Kratom as their primary substance of use and were subsequently treated with buprenorphine/naloxone (Suboxone).

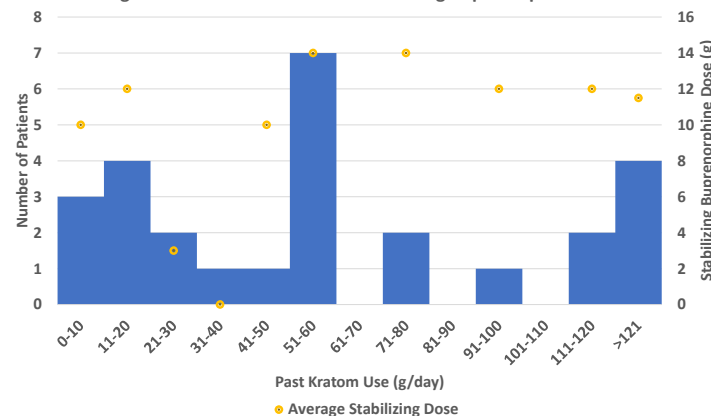
Target variables analyzed for each patient included:

- ✓ Length and dose of past Kratom use
- ✓ Duration of ongoing treatment/current treatment status
- ✓ Initial stabilizing buprenorphine dose
- ✓ Current daily buprenorphine dose (as of March 2020)
- ✓ Current outpatient appointment frequency (as of March 2020)
- ✓ Urine definitive drug test results (as of March 2020)

Results

Figure 1: Summary	Min	Max	Average
Age (years)	24	53	36
Past Kratom Dose (grams/day)	0.06	857.1	92
Length of Kratom use (months)	1	300	58.5
Length of Treatment (months) For patients currently in treatment	4.5	22	*Most patients are seen every 2 weeks

Figure 2: Past Kratom Use and Stabilizing Buprenorphine Dose



Results

28 patients were identified with Kratom as their primary substance of misuse:

- On average, patients used 92 grams of Kratom per day before seeking treatment
 - History of Kratom use ranged anywhere from 1 month to 25 years
- 20 out of 28 patients are still receiving treatment
 - 6 patients were lost to follow-up due to missed appointments
 - 1 tapered down to 0.25mg of buprenorphine and self-discharged
 - 1 moved out of town
- No correlation between past kratom use and initial stabilizing buprenorphine dose.

Conclusion

- ✓ Largest case series exploring buprenorphine treatment for Kratom use disorder.
- ✓ Findings suggest that buprenorphine can be an effective treatment option.
 - 71% retention rate
 - No cases of precipitated withdrawals when starting buprenorphine treatment
- ✓ Treatment should be tailored to each individual patients
- ✓ The findings can help inform medical providers of treatment options amidst the opioid epidemic.

References

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