

Ask The Pharmacist

10-13-2016

Question:

Ever heard of kratom?

Answer:

This is an interesting topic of much debate lately with the Drug Enforcement Administration (DEA) recently announcing plans to ban kratom in the United States by making the herbal supplement a Schedule I Controlled Substance where it would join other drugs such as heroin, ecstasy, and LSD. Today the substance is on the DEA's "drugs of concern" list, and despite its addictive properties and the DEA's position that kratom has a high potential for abuse with no currently accepted medicinal use, it is legal in most states.

Kratom (*Mitragyna speciosa*) is a tree-like plant indigenous to Southeast Asia, the leaves of which can produce either a stimulating effect or an opioid-like analgesic and euphoric effect depending on the amount used. The active ingredients in kratom are mitragynine and 7-hydroxymitragynine which work on the same receptor as most opioid agonists (mu-receptor) thus producing analgesic and opioid-like effects, and these ingredients are the ones that would fall under Schedule I regulation if the DEA's intended action goes through. Kratom's dose-dependent effects have led to its use for various conditions such as fatigue, chronic pain, and management of opioid withdrawal symptoms. People also use kratom for anxiety, cough, depression, to improve mood, sexual performance, and to enhance physical endurance. Kratom is typically ingested orally in the form of extract, fresh leaves (chewed), or dried plant material brewed as tea or packed into gelatin capsules. Kratom may also be smoked, but this is a less common delivery method.

Kratom is currently regulated in the U.S. as a dietary supplement under the Federal Food, Drug, and Cosmetic Act and may be purchased in smoke shops and on the Internet. However, the U.S. Food and Drug Administration (FDA) recently issued an import alert in late July related to kratom instructing agencies to detain shipments containing this substance. The FDA explained that kratom is a new dietary ingredient and cites potential toxicity and a lack of evidence of safety or history of use that would establish kratom to be reasonably expected to be safe as a dietary ingredient.

Further supporting concerns related to the use of kratom is a July 2016 report from the Centers for Disease Control and Prevention (CDC) that indicates the number of calls to poison control centers pertaining to this substance increased tenfold with 26 calls in 2010 to 263 calls in 2015, where 49 of the overall cases were considered to be life-threatening. The report essentially concluded that "[k]ratom use appears to be increasing in the United States, and the reported medical outcomes and health effects suggest an emerging public health threat" (CDC MMWR 65(29);748-749).

How does this impact workers' comp? Kratom remains highly investigational and controversial, and there is a lack of evidence for safety or effectiveness associated with its use. Routine urine drug screens do not detect the substance (Le D, Goggin MM, Janis GC. *J Anal Toxicol.* 2012; 36:616-625), and providers should be aware that kratom may be responsible for unexplained stimulant or depressive symptoms. Providers should also consider the potential for drug-to-drug interactions when kratom is used with other CNS depressants (such as opioids, benzodiazepines, alcohol) or other drugs that are metabolized through the cytochrome P450 system in the liver leading to higher drug levels in the body and potentially dangerous effects; e.g., acetaminophen (Tylenol®), diazepam (Valium®), omeprazole (Prilosec®), carisoprodol (Soma®), methadone, tramadol (Ultram®), amitriptyline (Elavil®).

References:

Natural Medicines Comprehensive Database (by subscription) at natrualmedicines-therapeuticresearch.com. Accessed September 27, 2016.
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www.cdc.gov/mmwr/volumes/65/wr/mm6529a4.htm
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