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Q: What is kava?

A: Kava, or kava kava, is an herbal drug native to the Pacific islands from the kava plant (*Piper methysticum*; Mount Sanai, 2023). The root of the plant is traditionally used to create a drink with sedative effects and kava-drinking is considered important in some Pacific Islander cultures. Kava extracts are also exported for use in Western societies where pharmaceutical and herbal supplement companies extract the active ingredients in kava, kavalactones, to produce an herbal drug with anxiolytic effects. In the early 2000s, safety concerns over risks of hepatotoxicity led to temporary bans in several countries. A 2007 report by the World Health Organization (WHO) concluded that hepatic adverse reactions are rare and associated with excessive dose, drug interactions, and other factors such as excessive alcohol intake or pre-existing liver disease. A systematic review of herbal supplements, including kava, highlighted concerns with indefinite use, as they found some type of liver injury in 98% of cases but most patients (83%) made a full recovery once the herb was withdrawn (Ballotin et al., 2021). Both the WHO report and this systematic review recommend pharmacological standards that addresses issues around quality, dosage, preparation, and duration of use.

Q: What are the potential mechanisms of action underlying kava?

A: Kavalactones are responsible for the clinical effects of kava. The exact mechanism of action by which kavalactones exert their anxiolytic effect is unknown but it is thought that kavalactones potentiate gamma-aminobutyric acid (GABA) type A receptors, reducing the release of excitatory neurotransmitters and limiting neuronal uptake of dopamine and norepinephrine (Chua et al., 2016; Ooi, Henderson, & Pak, 2018).

Q: Are kava recommended as a treatment for GAD in the Military Health System (MHS)?

A: There is no VA/DOD clinical practice guideline (CPG) on the treatment of GAD.

The MHS relies on the VA/DOD CPGs to inform best clinical practices. In the absence of an official VA/DOD recommendation, clinicians should look to CPGs and authoritative reviews published by other recognized organizations and may rely on knowledge of the literature and clinical judgement.

Q: Do other authoritative reviews recommend kava as a treatment for GAD?

A: No. No other authoritative reviews include recommendations on the use of kava for GAD.

Other recognized organizations publish CPGs or conduct systematic reviews and evidence syntheses on psychological health topics using grading systems similar to the VA/DOD CPGs. These include the American Psychiatric Association, American Psychological Association, and the United Kingdom's National Institute for Health and Care Excellence. Additionally, Cochrane is an international network that conducts high-quality reviews of healthcare interventions.

Q: Is there any recent research on kava as a treatment for GAD?

A: Zhang et al. (2022) performed a network meta-analysis comparing “all possible medicinal herbs for the treatment of anxiety” in patients with diagnosed or subthreshold anxiety. Twenty-nine trials were included in the analysis and allowed for the comparison of twelve medicinal herbs, including kava, to one another and to both active and inactive control groups. Overall, kava produced a significant anxiolytic effect and was slightly better tolerated than active drugs (e.g., benzodiazepines, SSRIs). However, for patients diagnosed with GAD, kava did not significantly reduce symptoms over time. An RCT by Sarris, et al. (2020) found similar results wherein an analysis of 171 patients with GAD showed that participants were equally likely to experience symptom remission with kava or placebo. Tests for liver functioning more frequently showed abnormalities for individuals in the kava group, though these abnormalities did not rise to the level of liver damage.

Q: What conclusions can be drawn about the use of kava as a treatment for GAD in the MHS?

A: The recent evidence for kava indicates that it is not an effective treatment for GAD. Caution is advised for those with pre-existing liver conditions or who otherwise may have impaired hepatic functioning due to kava’s potential to adversely impact liver functioning. More research using standardized plant components and levels of kavalactones is needed to better understand the safety profile of kava. It is important to note that kava is considered a psychoactive substance and Department of Defense Instruction 1010.04 prohibits improper use of any psychoactive substance (Office of the Under Secretary of Defense for Personnel and Readiness, 2014).

References

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