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Does mad honey show up on a drug test

Mad honey is a type of honey that is legal to consume but should be eaten in moderation due to its potent side effects. It contains grayanotoxins, which can affect the nervous system and cause symptoms like dizziness, nausea, and vomiting. The production of mad honey is limited, making it expensive and rare. It is found at high altitudes, including 3500 meters above sea level in regions such as Nepal and Turkey. While it may be legal to sell or buy, it must comply with local regulations and safety standards. The effects of mad honey can vary depending on the individual's tolerance and the amount consumed. Consuming too much can lead to lethal poisoning. It is recommended to choose a reputable source when buying mad honey to ensure quality and safety. The onset of its effects usually occurs within a few hours of consumption. Authentic mad honey comes from specific plants, such as rhododendron and azalea flowers, which contain grayanotoxins. Bees collect the nectar of these flowers to produce mad honey. However, overharvesting can harm bees, so proper harvesting techniques are essential. Mad honey is not widely available in some countries, including North Korea, Australia, and New Zealand. While it may be hallucinogenic due to its grayanotoxin content, mad honey has potential health benefits and is used in traditional medicine in Nepal. However, excessive consumption can lead to adverse effects. In moderation, mad honey can be a unique and exciting experience for those who try it. Mad honey from Nepal offers unique flavors and potential health benefits. Three types commonly found are Himalayan Cliff honey, wild honey, and mad honey itself. Wild honey can sometimes be confused with mad honey due to its natural variations. Honey hunters in Nepal collect honey from wild hives often in challenging conditions. Rhododendron honey is another type, but not all of it is mad honey nor poisonous. The difference between wild and mad honey lies in the content of Grayanotoxin and where it's sourced. Mad honey, collected by Apis Laboriosa bees feeding on rhododendron flowers, can induce a high or altered state when consumed in large quantities. Its legality varies by country; for instance, it's illegal in New Zealand, Australia, and South Korea. Mad Honey: Understanding its Medicinal Properties, Risks, and Effects Some cultures have traditionally used mad honey for its potential medicinal properties, including wound healing and gastrointestinal disorders. However, scientific evidence supporting these claims is limited due to a lack of comprehensive research. Consuming excessive amounts of mad honey can be hazardous and may lead to dangerous side effects. It is crucial to follow dosage instructions carefully to avoid overconsumption. Furthermore, grayanotoxins present in mad honey can interact with certain medications, such as blood pressure medications. Therefore, individuals taking prescription drugs are advised to consult with a healthcare professional before consuming mad honey. Mad honey has a unique taste that is often described as bitter or slightly metallic. While it can be purchased from specialized vendors online and in some physical stores, its limited availability makes it less accessible for recreational use. The effects of mad honey can vary depending on the quantity consumed, typically lasting a few hours. Pregnant or breastfeeding women should avoid consuming mad honey due to potential risks to the developing fetus or nursing baby. Additionally, individuals with known allergies to bee products may need to exercise caution when consuming mad honey. In conclusion, while mad honey has been used for various purposes, it is essential to consume it responsibly and be aware of its potential side effects and interactions with medications. Consulting with a healthcare professional is recommended for any concerns or questions about mad honey consumption. Mad Honey Intoxication: A Brief Overview Mad honey intoxication occurs when individuals consume honey contaminated with grayanotoxins, leading to symptoms such as dizziness, blurred vision, nausea, vomiting, and general weakness. The treatment involves symptomatic care, including intravenous infusions of atropine sulfate and fluids, and in cases of complete atrioventricular block, temporary pacemaker implantation. Despite being rare, fatalities can occur due to arrhythmias caused by mad honey ingestion. Honey has been used as a folk medicine for thousands of years and is rich in antioxidants, anti-inflammatory, and antimicrobial properties. Tutin Honey Poisoning: A Toxic Form of Mad Honey Grayanotoxins, also known as rhodotoxins or acetylandromedols, are diterpenes found in the nectar and pollen of Rhododendron plants. These toxins are extracted by honey bees and can be present in commercial honey, particularly from the Coraria species of shrubs. Mad honey, a type of contaminated honey, has been reported in various countries including New Zealand, China, Turkey, Philippines, Korea, Indonesia, Japan, Nepal, Austria, Germany, Brazil, and North America. The toxins are more toxic during spring and can cause intoxication, irritate the throat, and lead to severe health complications. Mad honey is also known as bitter honey due to its sharp taste and has been used for various purposes, including alternative medicine for hypertension, diabetes, flu, gastrointestinal disorders, arthritis, and viral infections. However, it contains high levels of antioxidants and phenolic acids, which have been reported to have antiradical bioactivities. Despite the potential benefits, mad honey is highly toxic and can cause death if consumed in large quantities. The use of mad honey as an aphrodisiac has gained popularity globally, but its sale was banned in South Korea due to reports of intoxication cases. Despite this ban, illegal imports continue, posing a risk to consumers. Mad honey intoxication has been documented worldwide, with its origins possibly linked to the Black Sea region of Turkey or Nepal. A table listing recent cases (2010 onwards) shows that mad honey is still widely consumed in various countries. Cases of mad honey poisoning have been reported as far back as 401 BC by Xenophon, an Athenian military commander and author. King Mithradates IV used it as a weapon against Pompey the great in 67 BC. Although mad honey poisoning isn't typically classified as a cholinergic toxidrome, it does exhibit some cholinergic toxicity and can affect the cardiovascular system. Symptoms of mad honey intoxication can be severe but are rarely fatal. A case study from Southeast China reported that 25.8% of patients who consumed contaminated honey with pollen from T. hypoglaucom died. Common symptoms include bradycardia, hypotension, and fainting. In severe cases, it can lead to coma, exhaustion, blurred vision, tachycardia, and even hyperthermia (malaria-like). The toxins in mad honey attach to sodium ion channels, modifying their function and blocking the transmission of action potentials. Grayanotoxin is a key component of mad honey's toxicity. It binds to voltage-dependent sodium channels in excitable cells, including muscles and nerves, leading to changes in membrane permeability and ultimately causing bradycardia, hypotension, and respiratory depression. The toxin's mechanism involves binding to the sodium channel, preventing its inactivation, elevating membrane permeability, inhibiting repolarization, and moving the membrane potential towards hyperpolarization. This prolonged depolarization acts like a cholinergic agent, leading to severe symptoms but rarely death. The malfunction of nodes is caused by a decreased action potential.74,75 Skeletal muscle sodium channels are more sensitive to grayanotoxin than cardiac muscle channels.76 This membrane effect links the observed responses in nerves, muscles (skeletal and heart), and the central nervous system.50 Muscarinic effects have also been reported for grayanotoxin. A study showed that atropine reversed respiratory depression and bradycardia caused by grayanotoxin, while a selective M2 receptor antagonist only reversed bradycardia.54 This suggests that grayanotoxin's effect on the heart is mediated through the M2 receptor, leading to cardiotoxicity.77,78 Smaller doses of toxins are required for respiratory depression and bradycardia when injected intravenicularly compared to intraperitoneally, indicating central nervous system involvement. After vagotomy, no bradycardia was observed, suggesting the role of vagal pathways.55,77,79 Different types of grayanotoxin have different effects; only some lead to poisoning/intoxication/toxic effects. Grayanotoxin I affects both atrioventricular conduction and the sinoatrial node.70,80 Grayanotoxin II is less toxic than I and III and leads to suppression of natural heartbeats by hyperpolarizing cells via elevating sodium permeability in the sinoatrial node.81 Grayanotoxin III causes arrhythmia through triggered activity within 15 minutes in feline cardiac Purkinje fibers.25,27 The increase in stimulation frequency or calcium concentration enhances after-potentials and triggered activity. Conversely, increasing potassium concentration or verapamil blocks this activity. Arrhythmias are due to the oscillatory form of after potential triggered by grayanotoxin III.83,126 Grayanotoxin III intoxication has no fatalities; patients recover within a day with complete recovery after 3-4 days of treatment.84 Symptoms last less than a day as metabolism and excretion occur within 24 hours.85 There is a linear relation between toxic effects and the amount of mad honey ingested, but distribution varies with honey leading to different intoxication levels in patients.38,40,41,55,85 The majority Mad honey poisoning; a review of 18 cases, effects on males aged 40-60 years. Mad honey, which is high in grayanotoxin, has been reported to cause intoxication and symptoms in both males and females. However, the prevalence of mad honey poisoning/intoxication is significantly higher in males than in females. Consumption of as little as one teaspoon of mad honey can lead to poisoning, with symptoms including vomiting, nausea, nodal rhythms, and second-degree heart block. Males are more susceptible to the toxin due to various factors, such as hypertension and higher use of mad honey as a sexual stimulant. The level of intoxication also depends on the amount of mad honey consumed, grayanotoxin concentration in the honey, and season of production. Long-term consumption may lead to desensitization of Na+ channels in excitable cells, reducing intense symptomatic presentation. Hospitalized cases of mad honey intoxication have been reported, with most being due to cardiac manifestations of grayanotoxin. Bradycardia and hypotension are the most common physical findings, often accompanied by symptoms such as dizziness, vomiting, and syncope. The afferent cardiac branches in vagus nerves are stimulated, leading to tonic inhibition of vasomotor centers and reduced sympathetic output. The reduction in blood supply to the coronary artery bed due to bradycardia and hypotension can lead to myocardial infarction/ischemia, as reported by several studies. The patient may present with chest heaviness or tightness and ST changes on ECG, mimicking acute coronary syndromes. ### 18% grayanotoxins can cause arrhythmias like atrioventricular block, nodal rhythms, or sinus bradycardia due to direct stimulation of vagal nerves. This leads to decreased sympathetic output and sinus node inhibition.44 According to Eller and Hochegger,39 the cardio-inhibitory effect of grayanotoxins can cause bradycardia, vasodilation, and continued hypotension through the Bezold-Jarisch reflex. Sinus bradycardia and atrioventricular block are common cardiac rhythm disorders in mad honey intoxication, with severity dependent on dose/concentration.55 Different symptoms like hypothermia, heart block, asystole, and Wolff-Parkinson-White syndrome have also been reported.28,34,51,96 One pediatric case of mad honey intoxication reported sinus bradycardia.97 Table 5 shows cases of rhythm disorders in patients with more than two cases until 2004. Sinus bradycardia, brady-arrhythmia, atrial fibrillation, nodal rhythm, and AV block were common findings. Apart from cardiovascular effects, patients may experience gastrointestinal, respiratory, and neurological symptoms like dizziness, diaphoresis, light-headedness, and blurred vision.53,55,70,75,86,95,98 Some cases also presented excessive salivation, convulsions, and altered antioxidant enzyme systems.51,96 Mad honey intoxication caused by grayanotoxin III, a condition where no reports exist in humans; however, it has been observed in rats that received an intravenous injection of mad honey. In this study, the researchers noticed a significant decrease in blood pressure and heart rate when 200 µg kg−1 mad honey was administered to rats compared to those receiving less or more of the toxin. Mad honey intoxication is diagnosed clinically through symptoms such as bradycardia, hypotension, nausea, vomiting, syncope, and other similar symptoms that are also observed in grayanotoxin intoxication. The main difference lies in the fact that commercial honey samples typically contain very low levels of the toxin due to its widespread distribution. In order to confirm a diagnosis, thin layer chromatography and paper electrophoresis can be employed as standard procedures for detecting grayanotoxin in honey samples, with gas or liquid chromatographies also being used because the toxin has low vapor pressure and is heat-sensitive. Mad Honey Poisoning: A Rare but Life-Threatening Condition In China, a total of 31 cases of mad honey poisoning were reported, with 14 males and 17 females affected. The majority of patients consumed wild honey, while 20 consumed farmed honey. The mortality rate was 18.2% for those who consumed wild honey, significantly higher than the 30.0% for those who consumed farmed honey. The symptoms of mad honey poisoning typically appear within 29 hours after ingestion and can last for a day if left untreated. In severe cases, patients may experience dizziness, mild hypotension, and bradycardia. Treatment involves symptomatic relief with saline infusion and atropine administration, which is crucial in managing symptoms such as bradycardia and hypotension. However, the use of antiplatelet therapy is not recommended due to reduced oxygen delivery to the heart. In severe cases, temporary cardiac pacing may be necessary to wash out toxins from the system. Monitoring patients for six hours can stabilize their condition without requiring hospital admission, according to recent studies. Mad honey poisoning occurs when grayanotoxins extracted from Rhododendron plant species are ingested through contaminated honey. The symptoms and signs of this condition have been reported globally, including in Turkey, China, and other countries. Despite the severity of the condition, no fatalities have been reported in recent medical literature. Treatment for mad honey poisoning involves close surveillance, cardiac monitoring with supportive care, intravenous infusion of atropine sulfate, and intravenous saline infusion. Researchers have published numerous studies on the medicinal properties and health benefits of honey. A temporary pacemaker may be used in some cases, but otherwise, there are no reported conflicts of interest. Funding for research has been provided by various organizations, including the Chinese Scholarship Council and King Fahd University of Petroleum & Minerals. A comprehensive review of 13 studies on the effects of honey was conducted, covering topics such as its antibacterial properties, anti-inflammatory activity, and potential cancer-fighting abilities. The researchers noted that the health benefits of honey are attributed to its chemical composition, including flavonoids, phenolic acids, and ellagic acid. Studies have shown that honey has antimicrobial, antioxidant, and anti-inflammatory properties, making it a potential treatment for various diseases, including skin disorders, wounds, and cancer. Additionally, researchers have investigated the effects of different floral sources on the quality and potency of honey. The studies also highlighted the importance of considering the origin and processing methods of honey when evaluating its medicinal properties. Overall, the research suggests that honey has significant health benefits and may be a valuable natural remedy for various conditions. Note: I've removed some references to specific papers and condensed the text to make it easier to read while maintaining the main points. Hashempour M. A, Tavakolinehad Z, Arabzadeh S. A, Iranmanesh Z, Nassab S. A. 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M, Meliponini biodiversity and medicinal uses of pot-honey from El Oro province in Ecuador. Emir. J. Food Agric. 2015;27:502-506. Omotayo E. O, Siti S. A. **The Dark Side of Honey** certain types of honey, known as "mad" or "mountain" honey, contain toxic compounds called grayanotoxins that can cause serious health problems. These honeys are produced from the nectar of Rhododendron flowers and can be found in certain parts of the world. **Studies on Mad Honey** Research has shown that mad honey consumption can lead to various cardiovascular issues, including: * Abnormal heart rhythms (e.g., atrioventricular block, junctional rhythm) * Heart attacks * Sudden cardiac death In some cases, the toxic compounds in mad honey have caused patients to experience symptoms such as syncope (fainting), shortness of breath, and chest pain. **Honey's Antihypertensive Effect** However, another study found that consuming a type of honey called "mad" honey actually lowered blood pressure in spontaneously hypertensive rats. This effect was attributed to the reduction of oxidative stress in the kidneys. **Importance of Proper Identification** It is essential to properly identify and differentiate between mad honey and other types of honey to avoid accidental consumption and its associated health risks. Overall, while some studies have explored the potential benefits of certain honeys, others have highlighted the dangers of consuming the wrong type of honey. Mad honey poisoning has been reported in several cases worldwide, including Hong Kong, Nepal, and other countries. The symptoms of mad honey poisoning can be similar to those of acute myocardial infarction (heart attack), hypotension, bradycardia, convulsions, erectile dysfunction, and even atrial fibrillation. The toxin responsible for mad honey poisoning is grayanotoxin, a compound found in the Rhododendron japonicum plant. Ingestion of mad honey can cause serious health effects, including seizures, hypothermia, and liver damage. Several case reports have been published documenting cases of mad honey poisoning, including reports of patients experiencing rare symptoms such as erectile dysfunction and atrial fibrillation. Some studies have investigated the effects of mad honey on blood glucose and lipid levels in rats with streptozotocin-induced diabetes. Additionally, researchers have identified bioactive compounds from Rhododendron ponticum L. leaves that exhibit anti-inflammatory and antinoceptive properties. The article also mentions various references to studies published in reputable journals, including PubMed, Google Scholar, and the Journal of Ethnopharmacology. The text consists of a collection of scientific studies and reports related to Rhododendron honey, also known as "mad honey," which has been used in traditional medicine for centuries. The studies focus on the antibacterial, antifungal, antioxidant, and antimicrobial properties of Rhododendron honey, as well as its potential effects on human health. Some studies have investigated the chemical composition of Rhododendron honey, including its phenolic content, total phenolic content, and amino acid composition. Others have explored the potential cardiovascular risks associated with consuming mad honey, such as cardiac problems and inferior myocardial infarctions. Additionally, there are reports on the toxicity of grayanotoxins, a group of compounds found in Rhododendron flowers that can be fatal if ingested in large quantities. These reports highlight the need for caution when using traditional medicine and emphasize the importance of proper identification and dosing. Overall, the studies suggest that Rhododendron honey has potential health benefits, but also highlights the risks associated with its use, particularly in large quantities or without proper medical supervision. Mad Honey Poisoning: Clinical Events and Related Studies This article summarizes various studies on the effects of grayanotoxins, a type of toxic compound found in certain types of honey, on humans. The studies cover a range of topics, including the clinical events associated with mad honey poisoning, the site of action of these toxins, and their effects on cardiac and nervous systems. One study reported a single-center experience with 19 patients who experienced various clinical events after consuming mad honey, including atrioventricular block, hypotension, bradycardia, and syncope. Another study investigated the effects of grayanotoxin-I on the electrical activity of frog sciatic nerve and found that it can affect threshold intensity and compound action potential. Other studies examined the effects of grayanotoxins on cardiac and nervous systems in various animal models. For example, one study demonstrated that alpha-dihydro-grayanotoxin-II can affect the electrical activity of the rabbit sino-atrial node, while another study found that grayanotoxin III can induce arrhythmias in feline cardiac Purkinje fibers. Additionally, this article discusses the historical and cultural significance of mad honey in medicine, as well as its potential uses and risks. Mad honey poisoning, also known as "sauvagine" intoxication, is a rare but potentially life-threatening condition caused by consuming honey contaminated with grayanotoxin, a toxic compound found in Rhododendron simsii flowers. The clinical presentation can vary widely, from non-ST-segment elevation myocardial infarction to acute heart attacks, complete atrioventricular block, and even seizures. Studies have investigated the effects of grayanotoxin on the cardiovascular system, including its effects on cardiac function, blood pressure, and heart rate. Research has also explored the mechanisms by which grayanotoxin causes poisoning, including its interaction with sodium channels in the heart. The clinical relevance of mad honey poisoning is significant, as it can lead to serious complications, including death. Understanding the effects of grayanotoxin on the body and developing effective treatments are crucial for preventing and treating this condition. References: * Campagna et al. (2003) - Clinical relevance of the Bezold-Jarisch reflex * Akinci et al. (2008) - An unusual presentation of mad honey poisoning: acute myocardial infarction * Yildirim et al. (2008) - Clinical presentation of non-ST-segment elevation myocardial infarction in the course of intoxication with mad honey * Dursunoglu et al. (2007) - A case with complete atrioventricular block related to mad honey intoxication * Sogut et al. (2009) - Mad honey poisoning: a case report and review of the literature The toxic effects of grayanotoxins, found in mad honey, have been extensively studied in various animal models and human cases. Mad honey, also known as manuka honey, has been linked to several cases of severe cardiovascular complications, including atrial fibrillation, complete atrioventricular block, and syncope (fainting). These incidents have occurred in individuals who consumed mad honey, which is believed to contain grayanotoxins. The grayanotoxins are thought to cause the toxic effects by affecting the heart's electrical conduction system. Researchers have conducted several studies to investigate the relationship between mad honey consumption and cardiovascular complications. In some cases, the toxins were detected through pollen analysis or other laboratory tests. A review of 31 cases from southwest China reported fatal cases of honey poisoning, with symptoms including bradycardia (slow heart rate) and severe hypotension. Mad honey is native to parts of Asia, particularly Turkey, where it has been used for centuries in traditional medicine. However, the toxin content can vary greatly depending on the region, altitude, and time of year. The risk of poisoning from mad honey consumption is particularly high for individuals who do not know about its toxic potential. The grayanotoxins are a type of lectin that can cause cardiac arrhythmias, including atrial fibrillation and ventricular tachycardia. In some cases, the toxins have been linked to other health issues, such as bradycardia and syncope. Overall, mad honey has been associated with several severe cardiovascular complications, highlighting the importance of proper identification and treatment of this toxic plant. You can continue to enjoy these freedoms as long as you abide by the license terms. To give credit where it's due, you must acknowledge the source, link back to the original license, and clearly indicate if any modifications were made. 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