

## **HERBCLIP**

## FiLE: Angel's trumpet (*Brugmansia candida* syn. *Datura candida*)

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## RE: Poisoning from Angel's Trumpet

Greene, G.S., Patterson, S.G., & Warner, E. Ingestion of Angel's Trumpet: An Increasingly Common Source of Toxicity. *Southern Medical Journal*, Vol. 89, No. 4, April 1996, pp.365-369.

Angel's Trumpet (*Brugmansia candida* or *Datura candida*) is a common ornamental shrub in Florida and other southeastern states. It grows eight to fifteen feet tall, has ovate leaves and bears large, fragrant, white to pink, vertically hanging, trumpet-shaped blossoms from spring to late fall. All parts of the plant are poisonous. The plant is related to jimsonweed (*D. stramonium*), which produces identical toxic effects. The Florida Poison Control Center normally gets six to eight reports of (mostly accidental) poisoning annually due to consumption of angel's trumpet, but in the last few years the number of cases has escalated. In 1994 there were 85 reported cases of angel's trumpet poisoning. These cases are mostly due to adolescents and young adults using the plant for recreational purposes. This article examines three case histories of individuals with angel's trumpet poisoning and describes the typical clinical pathology of the condition.

One case history involved a 25-year-old male brought to the emergency department by police. He had been found at a bus stop hallucinating and periodically exhibiting combative behavior. He had a slightly elevated oral temperature, a rapid pulse (tachycardia), and appeared flushed, with dry mucous membranes. His pupils were dilated to seven mm and nonreactive to light. Bowel sounds were absent and upon catheterization, his bladder released two liters of urine. Gastric lavage yielded seeds, leaves, and pieces of flowers. His symptoms and mental status steadily improved and he was released after 36 hours.

The symptoms of this case are typical of angel's trumpet poisoning. The pharmacologically active compounds in the plant are tropane alkaloids: atropine, scopolamine, and hyoscyamine. The concentration of these compounds varies according to plant part and condition of the plant, but typically ranges from 0.25 percent to 0.70 percent. On analysis angel's trumpet contains an average of 0.20 mg of atropine and 0.65 mg of scopolamine per blossom. These substances have many legitimate

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ABC does not authorize the copying or use of the original articles. Reproduction of the summaries is allowed on a limited basis for students, colleagues, employees and/or customers. Other uses and distribution medicinal uses. The recommended therapeutic dose of scopolamine or atropine is 0.5 mg for an adult. Although survival of much larger doses is common, fatalities have occurred with as little as 10 mg of scopolamine.

The active compounds in angel's trumpet block the action of acetylcholine at nerve synapses, leading to anticholinergic poisoning. The mnemonic "hot as a hare, dry as a bone, blind as a bat, red as a beet, and mad as a hatter" is a valid description of anticholinergic poisoning. Symptoms develop in five to ten minutes of ingestion of tea (the most common method of poisoning), and one to three hours after consumption of leaves and flowers. A low dose may cause decreased salivation and sweating (leading to hyperthermia later), increasing doses result in mydriasis (dilation of the pupils), with loss of sensitivity to light (accommodation), tachycardia, and arrhythmias. Urine retention, stasis of the gut, and confusion and agitation develop as the dose escalates. Even higher doses bring on delirium, hallucinations, seizures, and ultimately coma. Patients seldom remember events after ingestion of the plant or tea.

Treatment of poisoning consists of removing the anticholinergic compounds from the gastrointestinal tract and providing a supportive, nonstimulating environment for recovery. Sedatives and phenothiazine (antipsychotic agents) are contraindicated, as they may exert additional anticholinergic activity and aggravate the condition, leading to death. Patients typically recover in 48 to 72 hours with no sequelae (abnormal conditions resulting from the intoxication). Left untreated, a severe case of poisoning may result in flaccid paralysis, convulsions, coma, and death from respiratory failure.

Although many young people learn about the plant from "word of mouth," the authors express concern that the rash of angel's trumpet poisonings may be due to publicity in the news media. Stories about poisonings may unwittingly promote the use of angel's trumpet for a "cheap high" by providing pictures of the plant and describing methods of ingestion used by victims. The authors suggest that news media emphasize the toxicity of angel's trumpet while down-playing identification and means of ingestion. *—Leela Devi, MSN, RN* 

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