



NEW YORK CITY DEPARTMENT OF HEALTH
AND MENTAL HYGIENE
Mary T. Bassett, MD, MPH
Commissioner

2015 HEALTH ADVISORY # 43

Death Associated with Purported Aphrodisiac 'Stone' Can Cause Serious Poisoning and Death

- **An illegally sold OTC aphrodisiac derived from toad venom and known as Piedra China has been implicated in the death of a 39-year-old NYC man. The product is also known by the names Rock Hard, Love Stone, or Piedra.**
- **Physicians should call the New York City Poison Control Center at (212) POISONS (764-7667) 24 hours a day about any patients with a clinical picture resembling digoxin overdose, a history of ingested aphrodisiacs or OTC male-enhancement products.**
- **Physicians should be sure to ask the patient for a detailed description of the product.**

Please Distribute to All Clinical Staff in Emergency Medicine, Primary Care, Family Medicine, Internal Medicine, and Cardiology

November 5, 2015

Dear Provider,

The New York City (NYC) Poison Control Center (PCC) notified the NYC Department of Health and Mental Hygiene (DOHMH) that a 39-year-old man died after ingesting an aphrodisiac called Piedra China. He presented to the emergency department within 2 hours of the ingestion with vomiting and diaphoresis. Shortly after arrival, he became bradycardic with heart block. A serum potassium was 4.6 mEq/L and digoxin level was 1.45 ng/mL. The PCC determined that the patient had ingested a product containing bufadienolides and bufotenin that was intended for topical use and derived from toad venom. The patient acutely deteriorated and had cardiac arrest. He was treated with a total of 33 vials of digoxin-specific Fab over the next 2 hours.

Following each bolus of digoxin-specific Fab, he showed improvement with return of spontaneous circulation. Unfortunately, despite aggressive care, the patient continued to degenerate into ventricular fibrillation and the patient died.

Based on this clinical presentation, the product likely contains the venom of certain toad species (*Bufo* spp.). Ingestion or dermal absorption of *Bufo* venom can cause symptoms of digitalis poisoning including dysrhythmias, heart block, hypotension, and vomiting. The toxicologic mechanism is essentially identical to that of digitalis glycosides, in that cardiac glycosides from *Bufo* inhibit sodium-potassium ATPase activity. Because the complex venoms from *Bufo* species contain multiple other toxins they are used for several non-cardiac purposes in traditional medicines (e.g. Chinese), as aphrodisiacs, and hallucinogens. Although toxic levels in blood or serum have not been established, the skin of one toad appears to be sufficient to cause death or significant toxicity in humans.

Products containing *Bufo* venoms are not legal in the United States and FDA considers any over-the-counter aphrodisiac to be mislabeled. The aphrodisiac Piedra China involved in this case, is intended for topical application but this is not self-evident.

Be highly suspicious if a patient presents with a clinical picture resembling digoxin overdose and reports the use of aphrodisiacs or OTC male-enhancement products. Contact the NYC Poison Control Center if you know or suspect that a patient has ingested a product containing toad venom at 1-800-222-1222.

If you or your patients suspect a poisoning, call the NYC Poison Control Center 24 hours a day at (212) POISONS (764-7667); Spanish-speaking callers, call (212) VENENOS (836-3667).

Sincerely,

Mark Su, MD MPH
Director, NYC Poison Control Center