Background

A 36-year-old Burmese male was found unresponsive at his place of work with possible seizure-like activity. The patient received naloxone by Emergency Medical Services with no response. Upon ED arrival, the patient was tachycardic, hypertensive, with a Glasgow Coma Score of 3, and sluggishly reactive but equal pupils of 4 mm. He was subsequently intubated for airway support. During intubation, extensive dental decay and brown deposits were noted on his teeth. Laboratory testing revealed: Ethyl alcohol of 32.5 mg/dL, ammonia of 184 mmol/L, anion gap of 17 mmol/L, pH 7.3, and lactic acid level of 4.2 mmol/L. A small plastic bag was found in the patient’s pocket containing brown liquid and plant matter that was identified as kun-ya (Figure 1).

A common cultural tradition in most south Asian countries is the chewing of betel nut preparations (“betel quid,” “paan”, “kun-ya”) consisting of areca nut and slaked lime paste wrapped inside a betel leaf, often with cardamom, aniseed, cloves and sweetened grated coconut added to enhance flavor [1,2]. Arecoline, an active alkaloid found in areca nut, is a muscarinic agonist and a partial nicotinic agonist. The betel leaf itself contains a sympathomimetic alkaloid [3]. Acute toxicity is associated with euphoria, salivation, tachycardia, and bronchoconstriction. Arecoline may exacerbate bronchospasm in asthmatics [4]. Seizures may also occur given arecoline’s nicotinic effects. Areca nut is highly addictive and chronic use can produce areca nut chewer’s syndrome, which is characterized by oral cavity fibrosis, oral mucosa discoloration, and cancer [2,4]. Treatment of acute toxicity is supportive.

Figure 1: Cut betel or areca nut (Areca catechu) (red arrows) unwrapped from a betel nut leaf along with cloves (yellow arrow).

References


