Case 011: Attempted suicide.

Authors: Thomas YK Chan MD, PhD, FRCP
        David C Chung MD, FRCPC
Affiliation: The Chinese University of Hong Kong

A 68 year-old woman was known to be receiving drug treatment for osteoarthritis, chronic constipation, and allergic rhinitis. She became unhappy in the last few months because of limited mobility from knee pain. On the day of admission she was found lying unconscious on the kitchen floor besides an empty bottle of household cleaner. On arrival in hospital her Glasgow Coma Scale was 6/15. Her blood pressure was 94/52 mmHg; heart rate 108 beats/min and regular; respiratory rate 24/min with shallow breaths. A strong smell of Dettol was noted in her breath and crackles could be heard over her left lung.

1. What is Dettol?

Dettol is a household disinfectant and accounts for ~ 10% of all self-poisoning in Hong Kong. It contains 4.8% chloroxylenol (a phenolic derivative), 9% pine oil, and 12% isopropyl alcohol – all of which can depress the central nervous system. Chloroxylenol also has a corrosive action on the mucous membrane of the gastrointestinal tract, especially if a large amount of undiluted Dettol has been ingested.

2. What are the effects of swallowed Dettol in attempted suicide?

- All the active components of Dettol are central nervous system (CNS) depressants that can cause drowsiness and even coma.
- It has a corrosive action on gastrointestinal (GI) mucosa that can lead to mild but self-limiting upper GI hemorrhage.
- Irritation of mucosa around the glottis can lead to airway obstruction, the onset of which can be delayed for many hours.
- Swallowed Dettol can be aspirated into the lungs as well, leading to bronchospasm, pneumonia, adult respiratory distress syndrome (ARDS), and sudden cardiorespiratory arrest.
- Renal toxicity from chloroxylenol has been reported when a large amount of Dettol is swallowed.
- Hepatotoxicity has also been reported.

3. What are the danger signs in this patient?

- Loss of protective gag reflex in a comatose patient can increase the risk of aspiration.
- Relative hypotension and tachycardia may be due to hypovolemia from sequestration of fluids in the GI tract or upper GI bleed.
- Tachypnea and crackles are early signs of pulmonary aspiration.
4. What laboratory investigations should be ordered in this patient?

Laboratory investigations should cover all the potential complications mentioned in Question 2 and should include:

- Complete blood counts.
- PT, APTT, and INR.
- Plasma electrolytes.
- Renal function tests.
- Liver function tests.
- Drug screen for possible co-ingestion of other drugs.
- Chest x-ray.
- Abdominal x-ray, including views to check fluid levels.

5. Should gastric lavage be done on patients who have ingested Dettol?

The practice of gastric lavage in Dettol ingestion is somewhat controversial:

- For accidental ingestion of a mouthful or less, gastric lavage is not necessary and most patients do not need hospitalization.
- For ingestion of a large amount in attempted suicide, most physicians would recommend gastric lavage to remove unabsorbed Dettol, particularly when other drugs are also ingested. However, it has been shown that gastric lavage can increase the risk of pulmonary aspiration, a major cause of morbidity and mortality. It is recommended that lavage should be performed through a wide bore tube. Narrow bore nasogastric tube is too easily blocked by semi-solids or half-digested solids. Measures to protect the airway during lavage, including tracheal intubation, should also be given priority.

6. How else should Dettol poisoning be treated?

Treatment is largely supportive. CNS depression is a sign a large amount has been swallowed. Patient should be admitted into a monitored bed for observation. Be vigilant about the possibility of pulmonary aspiration. Patient should be nursed in the lateral (recovery) position and tracheal intubation may have to be considered. Also be aware that airway obstruction can be a late manifestation.

Further Readings


