Poisoning following Ingestion of *Narcissus Tazetta* Bulbs by Schoolchildren

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**KEY WORDS**: *Narcissus tazetta*, toxic plants, poisoning, bulb

**PATIENT DESCRIPTION**

A group of 10 children aged 10–11 years together with their guide presented at the emergency department in February 2010 suffering from vomiting after ingestion of the Narcissus bulb, which had been mistakenly identified as the bulb of a garden onion. All the children had been perfectly healthy prior to this incident. Eight of them vomited within half an hour after eating the Narcissus bulb. Two children had no complaints at all. Physical examination was normal in all the children. Vital signs including temperature, blood pressure and pulse were normal. No swelling of lips or mouth and no dyspnea or other respiratory manifestations were noted. One child had slight diffuse tenderness in the upper abdomen. Laboratory tests (electrolytes and kidney function) were normal. The eight children were treated with intravenous normal saline and the whole group was kept for 4 hours for observation in the emergency department. The 22 year old guide vomited once and suffered abdominal pain. Her vital signs and laboratory tests were normal. She was treated in the emergency department with intravenous normal saline and metoclopramide hydrochloride. Once their condition improved the whole group was discharged to their homes.

**COMMENT**

*Narcissus tazetta* [Figure] is a geophyte, a plant whose secondary parts on the ground die and only a storage organ lives underground. The *Narcissus tazetta* belongs to Amaryllidaceae, a family with a brown bulb [2]. The flowers have a strong smell that attracts insects. It is widely grown in the Mediterranean region and thrives in two habitats – valleys and mountains. The mountain Narcissus grows in rocky mountainous areas and flourishes during November and December. The valley Narcissus grows in ponds and swamp margins, flourishing from January to March.

Materials derived from plants of the family Amaryllidaceae are known to have healing properties. For example, oil produced from *Narcissus poeticus* was used in ancient Greece for the treatment of cancer. Components of these plants (such as narciclasine) are presently being investigated for activity against cancer cells. These components derived from the plants are also used in Alzheimer’s disease as inhibitors of the enzyme acetyl-choline esterase [3]. They are being investigated for other healing purposes as well.

However, along with the healing ability of Narcissus, there is also the danger of poisoning. All parts of this plant are poisonous especially if large amounts are consumed. A review of the literature produced a few reports of poisoning from eating the Narcissus bulb, but these referred to other species of Narcissus and not *Narcissus tazetta* [4]. In addition to vomiting, previously described reactions were respiratory symptoms and contact dermatitis [5].

Patients may be asymptomatic or present with nausea and severe vomiting, diarrhea, nervous symptoms such as trembling, and convulsions. Death can result from ingestion of the bulb. Irritant dermatitis can also occur when the needle-sharp calcium oxalate crystals, distributed in the outer layers of many Narcissus bulbs, pierce the hands of those handling them. The wheals are characteristic of the disorder “bulb fingers,” a symptom suggestive of histamine...
release. Pre-hospital treatment includes ceasing contact with the plant immediately and strict washing of hands, and eye irrigation in cases where patients rubbed their eyes with contaminated hands.

In the emergency department the treatment for poisoning is primarily symptomatic in nature. Airway, breathing and circulation must be ensured, followed by supportive therapy including removal of any remaining toxin by gastric decontamination. Gastric lavage is unlikely to be effective. Gastrointestinal decontamination by activated charcoal may be beneficial by reducing the absorbed poison dose, only if administered within the first hour. Dosing for adults is 1 g/kg (30–100 g) per os and 1–2 g/kg (15–30 g) per os for children. This treatment is a general recommendation and is not specific to Narcissus poisoning. Administration of activated charcoal is contraindicated in vomiting patients [1,2].

In conclusion, it is necessary to recognize the symptoms of poisoning by Narcissus, a common plant in our region, especially since the bulb of this plant strongly resembles the garden onion.

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References
5. Goncalo S, Freitas JD, Sousa L. Contact dermatitis and respiratory symptoms from Narcissus pseudonarcissus. Contact Dermatitis 1987; 16 (2): 113-16.

Capsule

‘Watch’ stops unnecessary heart attack deaths

It looks like a watch but it’s a sophisticated blood-oxygen heart rate monitor. About half the people at risk of death from cardiac or pulmonary arrest could gain the chance to live, once Israeli entrepreneur Leon Eisen’s new Oxitone device goes to market some time this year. Using two optical sensors and another special high-tech tool, Eisen developed the world’s first “watch” that can just about tell when your time may be up. With all the technology out there – personal monitoring devices, crocodile clips for your finger, even those panic buttons – nothing helps if the user is not able to mobilize these devices in time. And many patients may not be able to read the signs that cardiac arrest is imminent. That’s why Eisen developed a wearable watch-like mobile device – synched with Bluetooth, Android or iPhone devices – that takes minute-by-minute readings of heart rate and oxygen levels in the blood. Oxitone was recently chosen from 400 applicants by GE Healthcare’s Start-Up Health Academy Entrepreneurship Program.

Israel High-Tech & Investment Report

Pan-viral specificity of IFN-induced genes reveals new roles for cGAS in innate immunity

The type I interferon (IFN) response protects cells from viral infection by inducing hundreds of interferon-stimulated genes (ISGs), some of which encode direct antiviral effectors. Recent screening studies have begun to catalogue ISGs with antiviral activity against several RNA and DNA viruses. However, antiviral ISG specificity across multiple distinct classes of viruses remains largely unexplored. Schoggins et al. used an ectopic expression assay to screen a library of more than 350 human ISGs for effects on 14 viruses representing 7 families and 11 genera. The authors show that 47 genes inhibited one or more viruses, and 25 genes enhanced virus infectivity. Comparative analysis revealed that the screened ISGs targeted positive-sense single-stranded RNA viruses more effectively than negative-sense single-stranded RNA viruses. Gene clustering highlights the cytosolic DNA sensor cyclic GMP-AMP synthase (cGAS, also known as MB210) as a gene whose expression also broadly inhibits several RNA viruses. In vitro, lentiviral delivery of enzymatically active cGAS triggers a STING-dependent, IRF3-mediated antiviral program that functions independently of canonical IFN/STAT1 signaling. In vivo, genetic ablation of murine cGAS revealed its requirement in the antiviral response to two DNA viruses, and an unappreciated contribution to the innate control of an RNA virus. These studies uncover new paradigms for the preferential specificity of IFN-mediated antiviral pathways spanning several virus families.

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Eitan Israel

“Several excuses are always less convincing than one”

Daffodil 'Falconet', Tazetta Daffodil 'Falconet', Spring Bulbs, Spring Flowers. Previous Next. Brightly colored and strongly fragrant, multiple award-winner Narcissus 'Falconet' bears cheerful clusters of 3-8 flowers per stem, adorned with deep yellow, overlapping petals and bright orange-red cups in mid spring. Because of its strong stem and sweet scent, this Tazetta Daffodil makes excellent cut flowers. This perennial bulb is a recipient of the prestigious Award of Garden Merit of the Royal Horticultural Society and the highly coveted Wister Award of the American Daffodil Society. Easily grown in average, medium moisture, well-drained soils in full sun or part shade. Keep the soil moist during the growing season, but reduce watering after foliage begins to die back. Narcissus Tazetta Art Print by Kathleen Stephens. All prints are professionally printed, packaged, and shipped within 3 - 4 business days. Choose from multiple sizes and hundreds of frame and mat options. Paperwhite flowers (Narcissus papyraceus) are commonly grown as indoor plants during the winter. Learn about forcing paperwhites to bloom indoors. Narcissus 'Silver Chimes' - tazetta daffodil bulbs. Buy tazetta daffodil bulbs Narcissus Silver Chimes - Clusters of nodding blooms: 10 bulbs: £5.99 Delivery by Crocus. Winter Flowers Daffodil Flower Daffodil Bulbs Spring Flowers Daffodilis Flower Garden Yellow Flowers Wholesale Flowers Bulb Flowers. Narcissus papyraceus 'Ziva' - paperwhite - tazetta daffodil bulbs. Narcissus tazetta (Chinese sacred lily). plant details. my notes. Botanical name. Narcissus tazetta. Other names. Bunch-flowered daffodil, Chinese sacred lily, French daffodil, Polyanthus daffodil, Polyanthus narcissus, St Joseph's staff. Get expert info and easy to follow monthly care reminders for the plants in your garden by signing up for a free Shoot account. Sign up for free.