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BMJ Case Reports Press Release

Mix-up over homemade herbal tea puts woman in life-threatening condition

A woman who mistakenly used foxglove instead of comfrey leaves to make a herbal tea was rushed to hospital in a life-threatening condition.

Writing in the journal **BMJ Case Reports**, doctors at King's College Hospital say the case highlights the need to be aware of accidental ingestion of the foxglove plant in patients who use herbal remedies.

The previously well 63-year-old woman arrived at the emergency department with vomiting, palpitations, and lightheadedness. She had no history of heart problems.

A friend had recommended her the herbal drink comfrey (*Symphytum officinale*) to help ease her insomnia. She had purchased a handful of comfrey leaves from a local market and brewed them into a tea. Her symptoms began several hours later.

Heart monitoring showed an irregular heartbeat, but standard blood tests were normal.

The National Poisons Information Service (NPIS) database did not have an entry for comfrey. However, the entry for foxglove

(Digitalis purpurea) states it may be confused with comfrey herbal tea.

In particular during Spring, it is very difficult to distinguish between the thick leaves of comfrey and foxglove (see figure 2). This case illustrates how this subtly can lead to mistaken identity, and near-fatal consequences.

A quick internet search suggested that the comfrey plant closely resembled the foxglove plant, which contains the organic forms of digoxin and digitoxin - active compounds that are frequently used in the treatment of irregular heart rhythm and heart failure.

Raised digoxin levels confirmed this and the patient was given an antidote. After five days of monitoring, her heart returned to normal rhythm and she was discharged home.

The patient was unable to find the original leaves she had purchased in the market but was advised to contact the seller to inform them of the mistake.

“Homemade herbal remedies on the surface may seem harmless,” write the doctors. “However, this case illustrates how limited knowledge of plants can be potentially fatal.”

They have also contacted the NPIS to recommend including the risk of accidental ingestion of Digitalis under the entry for comfrey.

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Notes to editors:

Case Report: Comfrey herbal remedy causing second-degree heart block: do not be outfoxed by digitalis

<http://casereports.bmj.com/content/2016/bcr-2016-216995>

Not much evidence behind advice to ‘drink plenty of fluids’ when unwell

Doctors often advise patients to 'drink plenty of fluids' and 'keep well hydrated' when unwell, but a new report calls for more research behind this advice.

Writing in the journal **BMJ Case Reports**, doctors explain the case of a 59-year-old woman who developed hyponatraemia - a condition that occurs when the level of sodium is abnormally low - from drinking too much water to help with a recurring urinary tract infection.

The patient was admitted to the Royal London Hospital Emergency Department, and was prescribed antibiotics and painkillers for her urinary tract infection. However, she became progressively shaky, muddled, vomited several times, and had significant speech difficulties.

Tests revealed hyponatraemia - her sodium level was 123 mmol/L (normal range 135-145) - which the doctors say was the cause of these progressively worsening symptoms, and can result from water intoxication.

The patient revealed that throughout the day, she had consumed several litres of water based on medical advice she recalled from previous similar episodes to ‘flush out her system’.

The condition is a medical emergency and requires prompt recognition and action. A mortality rate of almost 30% has been reported for patients with sodium levels of less than 125 mmol/L.

Doctors restricted her fluid intake to 1 litre over the following 24 hours, and by the following morning, she felt improved, her blood tests were normal, and she was discharged that day.

Fatal water intoxication has also been reported in endurance exercise, use of the drug MDMA, and anecdotally during university initiation activities as well as during water-based torture rituals.

This incident mirrors a previous case report, in which a woman developed hyponatraemia, and later died from drinking excessive amounts of water during an episode of gastroenteritis.

The doctors say it's very rare to develop water intoxication with normal renal function. However, some illnesses drive up levels of antidiuretic hormones, which reduce renal excretion of water. For these type of conditions, the doctors ask, should increased water intake be recommended?

They conclude: "There is a paucity of evidence behind the advice to 'drink plenty of fluids' in the management of mild infective illness. This needs to be addressed, especially considering the significant morbidity and mortality of acute hyponatraemia."

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Note to Editors

Case Report: When plenty is too much: water intoxication in a patient with a simple urinary tract infection

<http://casereports.bmj.com/content/2016/bcr-2016-216882>

Concerns over bodybuilders injecting natural oils

In **BMJ Case Reports** today, doctors are warning of the dangers associated with injecting natural oils to improve muscle definition following a serious complication experienced by an amateur bodybuilder.

The 25 year-old-man was referred to hospital because of pain and loss of function in his right arm over several months. An ultrasound scan showed a rupture in his triceps - a rare condition in young patients - and multiple cysts within the arm muscles.

He had taken up bodybuilding 4 years prior and attended the gym three times each week. He admitted to injecting coconut oil and other concerning practices to improve his muscular appearance.

He was using non-prescribed and self-administered insulin, vitamin B12 injections, steroids, and protein supplements. These practices resulted in numerous adverse reactions, including seizures, infections, and a range of conditions, some of which required surgery.

Surgery to repair the rupture in his arm was successful. However, he continues to practice unsafe techniques to achieve his desired body image, despite being advised about the potential future risks.

Steroid use among bodybuilders to bulk up muscles is well known. Other compounds may be used, including natural oils, such as sesame oil, walnut oil and paraffin. These are often less costly than other synthetic compounds and are an attractive option, particularly to amateur bodybuilders.

Use of natural oils for this purpose is well known among Arab and Middle Eastern communities and on internet sites, but there's not much information about the practice in medical literature.

“The few cases of natural oil self-inoculation formally reported are likely to be the tip of the iceberg,” explain the doctors. “We need to be aware of these cases to enable correct clinical diagnoses and also to recognise other self-abusive and potentially life-threatening practices which may be seen in conjunction.”

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Note to Editors

Case Report: Muscle mania: the quest for the perfect body
<http://casereports.bmj.com/content/2016/bcr-2016-217208>

Vietnam war veteran develops rare cancer after exposure to Agent Orange

A veteran with a rare type of cancer may have developed the condition after being exposed to Agent Orange during the Vietnam War, reveal doctors writing in the journal **BMJ Case Reports**.

The 69-year-old patient was admitted to hospital with a 1-year history of a painful and enlarging mass in his right thigh. Ultrasound and CT scans identified the mass, and a subsequent biopsy confirmed a rare malignant soft issue cancer, known as pleomorphic liposarcoma.

The cancer was removed during surgery and this was followed by a course of radiotherapy. The patient asked if the tumour was related to his exposure to Agent Orange while serving in the Vietnam War.

From 1963 to 1965, he was in frequent contact with forested areas that were sprayed with Agent Orange, a toxic chemical aimed at depriving the Viet Cong of crops and vegetation cover.

'Operation Ranch Hand' led to the deposition via helicopter, boats and trucks of 72 million litres of chemicals across the forested and rural areas of Vietnam for this sole purpose. The bulk of these chemicals was Agent Orange which included TCDD - a toxic chemical that has been recognised to have the potential to cause cancer.

Doctors from Sinai Hospital in Baltimore, Maryland, USA, say the link between the veteran's cancer and a wartime toxin exposure is possible.

The patient's cancer, pleomorphic liposarcoma, is the rarest type of liposarcoma cancer and has a high rate of local recurrence and ability to spread to other parts of the body.

“There has been no well-established precipitating factor for liposarcomas,” they explain. “However, clinicians should have a high degree of suspicion for persistent and evolving soft tissue masses, especially in patients with a previous military background. This should prompt the search for a possible toxin exposure.”

They continue: “The patient was educated about his diagnosis and was counselled about the unfortunate side effects with which Agent Orange has been associated. He continues to be monitored for disease recurrence and will continue to do so for years.”

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Note to Editors

Case Report: Wartime toxin exposure: recognising the silent killer

<http://casereports.bmj.com/content/2016/bcr-2016-217438>

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