Accidental fatal poisoning with *Colchicum autumnale* due to mistaken identification: a case report

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The Poison Information Centre's objective is to provide adequate advice quickly so as to reduce the incidence of illness, damage to health and death as a result of severe cases of poisoning. Our centres are staffed with internationally trained and highly experienced doctors and nurses working in the fields of emergency medicine, anaesthesia and intensive care.

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Objective

Until the middle of last century use of wilde edible plants was common in Estonia (1). In last decades populations knowledge in plants is decreased but with rising trends of healthy nutrition wild plants are gathering popularity again. There are trends of „fashion plants" which are recommended by social media as „super foods" and often used by people who have no wider knowledge about herbs. The trend plant for last years has been *Allium Ursinum* – wilde garlic. The law in Estonia allows to sell only selfgrown wild garlic, not picked in forest, but there is no actual control measures and nothing to stop people to collect *Allium ursinum* for their own use. There have been case reports from many places in Europe about poisonous plants mistaken for *Allium ursinum* including *Colchicum autumnale* and *Veratrum album*. (2,3). This paper presents a case report of fatal poisoning due to *Colchicum autumnale* mistaken for *Allium ursinum*.

Case report

Man 69 and woman 66 y. were hospitalised after eating homemade wild garlic pesto in the previous evening. Some hours later both had developed severe gastrointestinal symptoms but did not contact any health care facility. On the next day called ambulance and were admitted to North Estonia Medical Centre ER. Wife felt better and was later referred home. Husbands condition deteriorated, he had signs of hepatic failure and cytolysis. Poison Information Centre was contacted. Admitted to ICU, transferred to internal medicine ward next day. Became delirious, agitated, body temperature 38°C. Day five developed pancytopenia. Day seven transferred back to ICU: hypotonia, hypoxia, increasing multiorganfailure. Mental status deteriorated. Mechanical ventilation, dialysis, vasopressor treatment were started. Despite agressive treatment the patient deceased day nine.

Results

14.05.2017	Plant thought to be Allium ursinum eaten by 2 people. G/I symptoms in 2-3 hours
15.05.	M 69 hospitalised due to persistent vomiting to internal medicine department. Cytolysis in blood samples
17.05.	Hepatic failure, admitted to ICU
18.05.	Back in internal ward. 10 pm delirious, T 38˚C. No microbial growth in blood and urine samples
20.05.	Pancytopenia, CRV 230, PCT 41
22.05.	Hypotonia, tachycardia, hypoxemia. Lac 4. Petechias on lower abdomen, icterus, haemorrhagies in the eyes. Back to ICU, norepinephrine infusion started
23.05.	Deteriorates, multiorgan failure, bone marrow supression, started mechanical ventilation and renal dialysis. Norepinephrine 0,5 µg/kg/min
24.05.	Death at 10 am
Post mortem	Toxic gastroenteritis and colitis, toxic bone marrow injury, toxic liver injury, cytolysis of splenic parenchyma, acute kidney injury, lung oedema, cerebral oedema, ascitis.

Fig 1. Patsient contition changes 14.05. – 24.05.2017

Convallaria maialis, *Allium ursinum*, *Colhicum autumnale* (from the left)

Discussing the eaten plant both victims were sure it was not wild garlic. Both *Convallaria maialis* and *Colchicum autumnale* which have leaves remotely similar to *Allium ursinum* grew in the same garden. Developed symptoms and description of the plant did fit *Ctochicum autumnale* poisoning.

Activated charcoal is known to bind colchicine (4), but due to often late onset of symptoms and unawareness of victims about danger in case of mistaken plants can not be used in time on many cases.

Conclusions

After the fatal accident several articles and blog posts were published both by Estonian Poison Information Centre and botanists to rise awareness about dangerosly similar looking plants and toxicity of *Colchicum autumnale*. Considering the gaps in general populations botanical knowledge it would be more useful in the future for Poison Information Centre to follow the wild plant trends on social media and identify and introduce to public the potential mistaken identification dangers for popular plants.

References

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5. Photo: Georg Kõrre / Eesti Meedia / Scanpix 2017