

## Other full case

## Bitter pill to swallow: a case of accidental poisoning with digitalis purpurea

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## Summary

While digitoxicity secondary to therapeutic use is frequent, due to its distinctive appearance and unpleasant taste accidental ingestion of digitalis purpurea (foxglove) is uncommon. This report relates the case of two previously healthy individuals who inadvertently consumed significant quantities of digitalis in its plant form. Both men presented in first-degree atrioventricular block and had digoxin levels of 4.9  $\mu\text{g}/\text{litre}$ , but were otherwise stable and made unremarkable recoveries with repeated dose activated charcoal.

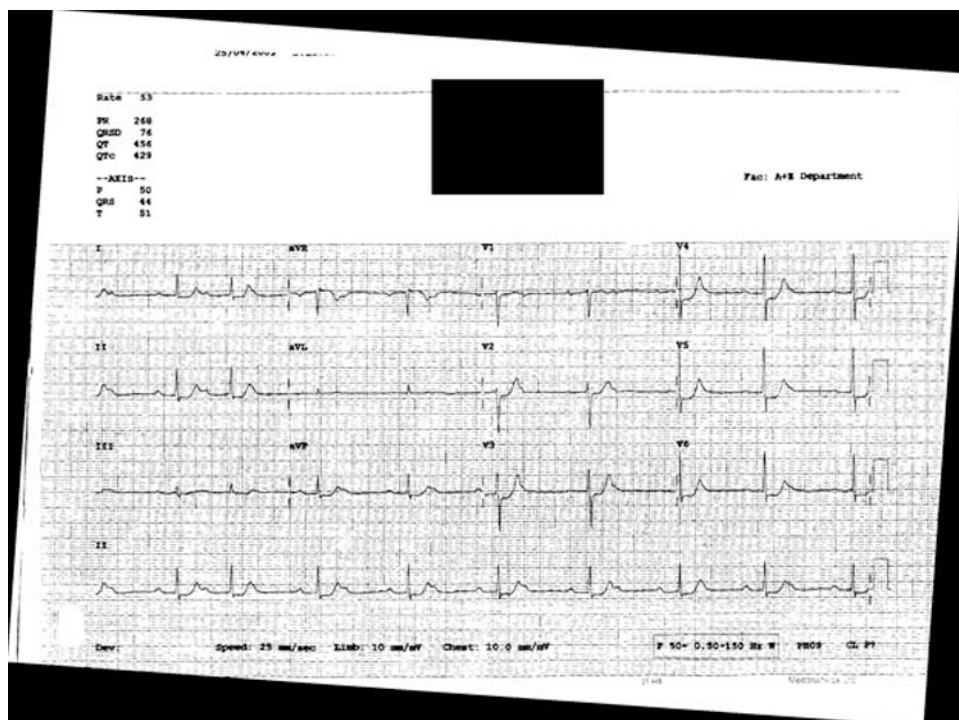
## BACKGROUND

This case demonstrates how seasonal variation in plant appearances can be contributory in case of poisoning, in addition digoxin levels were recorded which is often not the case in reports of plant poisoning.

## CASE PRESENTATION

While digitoxicity secondary to therapeutic use is frequent,<sup>1</sup> due to its distinctive appearance and unpleasant taste accidental ingestion of digitalis purpurea (foxglove) is uncommon. This report relates the case of two previously healthy individuals who inadvertently consumed significant quantities of digitalis.

The patients, both male, one 51 years old and the other his 28-year-old friend who was visiting from Iraq, presented to the emergency department with abdominal pain and vomiting. The previous evening they had eaten a meal that included boiled 'cabbage' that the younger man had picked in Edinburgh, believing it to be the same plant that he was accustomed to eating in Iraq. Both had become unwell with abdominal pain and vomiting a few hours after the meal and had vomited all night before presenting. There was a third guest at the dinner party who had remained well; she had not eaten the cabbage due to its bitter taste, and the older of the two men admitted that he had found it barely palatable, but had eaten it out of politeness.



**Figure 1** Admission electrocardiograms (ECGs) showing widespread ST depression and first-degree heart block.

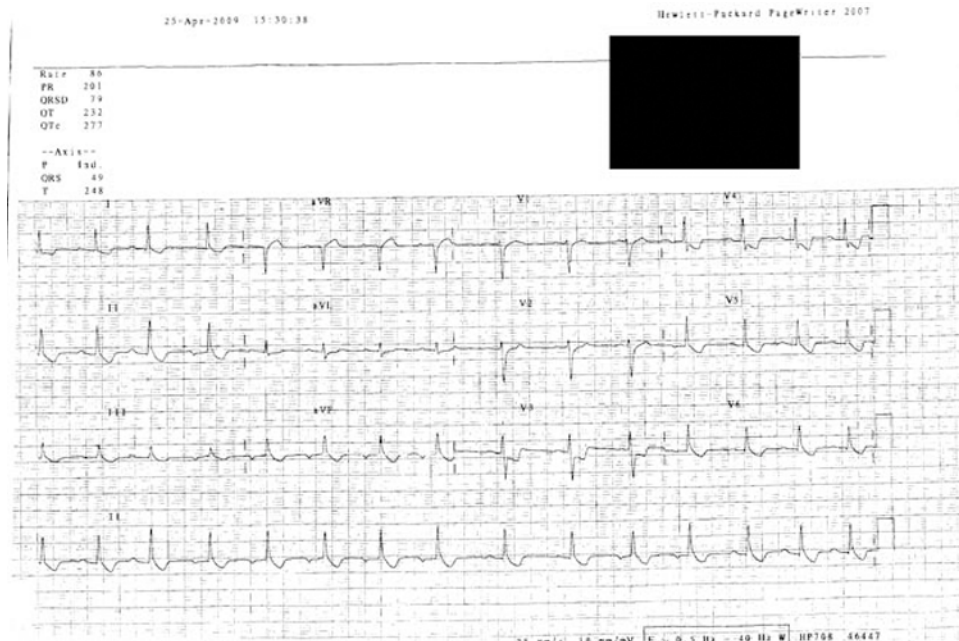


Figure 2 Electrocardiogram (ECG) of the younger man.

### INVESTIGATIONS

On arrival in the emergency department, both patients were haemodynamically stable, with examination being unremarkable. The electrocardiograms (ECGs) for both men (figures 1 and 2) showed widespread ST depression, with first-degree heart block and PR intervals of 201 and 260 in the younger and older patient, respectively. This led us to suspect digitalis effect, and digoxin assays were 4.9 µg/litre in both men.

### OUTCOME AND FOLLOW-UP

The patients were given repeated dose activated charcoal, placed on cardiac monitors and admitted to the toxicology ward where they stayed for 2 days until their digoxin levels fell back into the therapeutic range. They did not develop any higher degree of heart block nor arrhythmia.

### DISCUSSION

This case illustrates how seasonal variance can make it difficult to identify offending agents in plant poisoning, and there have been several reports of digitalis having been mistaken for comfrey and thus consumed as a herbal tea,<sup>2</sup> and as a salad leaf.<sup>3</sup> With digitalis being out of bloom at the time, in contrast to its usually immediately recognisable appearance it was non-descript, and indeed we were unable to identify from our many reference picture books the sample of the leaves brought in to the department by the patients.

As neither patient developed any higher degree of atrio-ventricular block nor arrhythmia, acting upon the recom-

mendations of the national poisons information bureau (TOXBASE) it was not deemed appropriate to administer digi-bind.

### Learning points

- ▶ Seasonal variation in the appearances of toxic plants can be a contributory factor in poisoning.
- ▶ An electrocardiogram (ECG) is an essential basic investigation in poisoning with an unknown agent.
- ▶ With foxglove being a ubiquitous plant across the UK, digitalis poisoning should be considered among the differentials in anybody presenting with abdominal pain and vomiting following ingestion of an unidentified plant. This is the most common initial manifestation,<sup>2 3 4</sup> and should prompt further investigation with ECG and possible serum digoxin levels.

**Competing interests** None.

**Patient consent** Obtained.

### REFERENCES

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Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Mitchell A. Bitter pill to swallow: a case of accidental poisoning with digitalis purpurea. *BMJ Case Reports* 2010;10.1136/bcr.01.2010.2633, date of publication

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