

Toxic Times



Welcome to the latest edition of Toxic Times. Inside you will find some useful information on the toxic effects of vitamin D and NSAIDs in animals and our regular look at seasonal plants, including bluebells and ivy, which pose a poisoning threat.

In addition, we have launched a new revealing feature entitled 'Meet the Team'. Our light-hearted profile of a different VPIS team member in each edition, will give you the opportunity to learn a little about the person on the other end of the phone!

If you are visiting BSAVA, remember to drop by the VPIS stand (Stand 422) to say hello and find out a little more about ToxBBox: our exciting joint collaboration with Vets Now.



Happy Easter!



Ivy Poisoning in Rabbits



Dogs and cats that eat ivy (*Hedera helix*) commonly develop hypersalivation, vomiting or diarrhoea. In more severe cases haematemesis or bloody stools may appear. Even then poisoning is rarely severe. However, in other animals, such as rabbits, ingested ivy can cause more serious effects and may even result in fatalities.

Ivy grows widely in UK woodlands, gardens, parks and is a popular house and conservatory plant. Both leaves and fruits contain triterpenoid saponins, from which the irritant hederin is formed. Allergic reactions can take place and may be due to allergens such as falcarinol.

After ingestion, the onset of effects in rabbits is often rapid, but in some cases has been delayed by up to 3 days. In past VPIS referrals, signs have included inappetence, diarrhoea, abdominal tenderness and colic, as well as muscle fasciculation, twitching, paralysis, and convulsions. Fatal cases are documented. Recovery can take up to 36 hours; convulsions or paralysis are poor prognostic indicators.

In humans and dogs, contact with ivy has caused allergic contact dermatitis, conjunctivitis, ocular oedema, pruritic erythema and rashes.

Note that "Poison Ivy" is a different plant - *Rhus radicans*.

By Nick Sutton

Vitamin D

Vitamin D compounds (calciferol, calcipotriol, calcitriol, cholecalciferol, tacalcitol, alfacalcidol and paricalcitol) are present in a wide variety of products. Examples include vitamin supplements, cod liver oil, rodenticides and feed additives. In human medicine their common uses are psoriasis treatments and vitamin D deficiencies. Veterinary uses include control of hypocalcaemia in cats and dogs with renal impairment. However, all vitamin D compounds are potentially toxic to cats and dogs.

Vitamin D compounds are vital for calcium homeostasis. Excess causes depositions of calcium which can lead to cell injury and necrosis. In addition, hypercalcaemia results in vasoconstriction leading to severe ischaemic tissue damage.

Toxic signs are variable in onset. Calcipotriol, calcitriol and tacalcitol may produce signs within 6 hours. Signs of weakness and lethargy, depression, polyuria and polydipsia, profuse vomiting and diarrhoea are classic. As calcium concentrations rise there may be ataxia, arching of the back, muscle spasms, and twitching. Laboratory analyses can help confirm diagnoses. Fatal cases do occur, especially in dogs following ingestion of human psoriasis creams.

Prognosis should be guarded if clinical signs are severe or advanced, but effective treatments are available though animals may need protracted care in some instances.

By Karen Sturgeon

Raisins and Chocolate - an Easter Reminder



Each year, between March and April, the number of enquiries concerning dried grapes (raisins, sultanas and currants) and chocolate increase dramatically. Around this time dogs, and occasionally cats, treat themselves to hot-cross buns and chocolate eggs, making Easter a potentially hazardous time of the year for pets.

Grapes, raisins, currants and sultanas can cause renal failure in dogs, while chocolate can act as a stimulant causing excitability, tremor, twitching, tachycardia and convulsions.

For more information, or if you would like to discuss a case, call the VPIS on 020 7188 0200.

By Nick Sutton



TOXBOX

Intrigued? This is an exciting new service resulting from a collaborative partnership between VPIS and Vets Now.

Visit the VPIS stand (Stand 422) at the BSAVA Congress to find out what this is all about! Details will also be available on the VPIS website in due course.



Bluebells

Bluebells (*Hyacinthoides non-scripta*) are native to Britain and Ireland and grow in woods and hedgerows. Italian and Spanish bluebells (*Hyacinthoides italica* and *Hyacinthoides hispanica*) have become naturalised and all are widely cultivated in gardens and parks. These plants are bulbous perennials with blue to violet-blue flowers seen from April to June. The fruits are ovoid capsules that ripen from May to July and contain 1 to 3 seeds.

All parts of these plants contain scillarens, which are cardiac glycosides similar to those in foxglove (*Digitalis* species). Toxic signs are gastrointestinal and cardiac, however cardiac glycosides in plants are poorly absorbed from the gut and severe poisonings are rare.

Poisoning has been reported in horses and ruminants that have grazed bluebells. Signs in these animals include depression, dehydration, abdominal discomfort, bloody diarrhoea, bradycardia or tachycardia, hypothermia, respiratory depression and recumbency. Cases in pets are rare. Signs commonly reported are vomiting, diarrhoea and abdominal discomfort. There is a risk of cardiac arrhythmias should significant quantity be ingested. Treatment is generally supportive with rehydration as appropriate, and monitoring of the ECG following significant ingestions. Most cases in companion animals are mild and respond to supportive care.

By Nicola Bates

Non Steroidal Anti-inflammatory Drugs (NSAIDs)

NSAIDs are used to treat inflammatory pain or used as a simple analgesic. Many are available as over-the-counter medications. Although sometimes used in veterinary medicine, NSAIDs can be potentially toxic to all animals, but particularly to dogs where they can cause severe gastric ulceration and acute renal failure.

Most NSAID enquiries reported to the VPIS involve ibuprofen, diclofenac, naproxen and the veterinary NSAIDs carprofen and meloxicam**.

NSAIDs reduce production of prostaglandins which control gastric acid production, gastric mucous and bicarbonate secretion and gastric mucosal blood flow. In the kidneys, prostaglandins are vital for renal homeostasis.

Effects develop quickly and include persistent vomiting, haematemesis, diarrhoea, and abdominal tenderness.

Weakness and depression are often noted, though some

animals show signs of pain. Gastric ulceration can occur without other clinical effects. Renal impairment is usually delayed for up to 5 days. Dehydrated or renal-impaired animals may be at greater risk.

Treatment involves decontamination (emesis, activated charcoal) and gastroprotective therapy. Classically, H2 receptor antagonists and sucralfate were the mainstays of drug therapy. However, proton pump inhibitors such as omeprazole are very effective at providing long duration inhibition of gastric acid secretion. Misoprostol, a synthetic prostaglandin analogue, can also be used in the early stages of management, but should not be used in pregnant animals. Hydration is important, and renal function may need monitoring.

By Leonard Hawkins

**Some NSAID preparations contain xylitol, which can be toxic in dogs – contact VPIS for more information.



VMIS - Veterinary Medicines Information Service

What is the dosing of drug X in cats?

This dog seems to have developed some unusual signs after its owner gave it drug Y. Is this a recognised adverse reaction or coincidental and unrelated? Should I report it?

Do you find yourself wanting to know more detail about some of the drugs you use in practice?

Especially when you are out of the surgery or out-of-hours?

The VPIS has long had an extensive collection of veterinary drug handbooks, pharmacopoeias and

databases which its staff can use to try to answer enquiries about pharmacokinetics, dosing and administration queries, adverse reactions and the like. Many of these sources originate from other countries in Europe or further afield, and may not be readily available in the UK.

You can always contact VPIS for such advice and our experienced specialists will do their best to answer your queries, and will provide details of where the information provided was sourced. Our standard case-credit charges will apply to such enquiries.

www.vpisuk.co.uk

Don't forget that you can manage your VPIS account, top-up your credits and even print off practice personalised client invoices directly from the VPIS website; www.vpisuk.co.uk

The website also enables you to:-

- Find information on common poisonings
- Print your registration certificate for RCVS and other inspections
- Download past newsletters and press releases
- Access poison related publications and reference material
- Link to other veterinary association and charity websites
- Source supply of medicines used in the management of poisonings, including details of ToxBBox

Meet the Team

This is a new feature to introduce the VPIS team to service users. Put a face to the voice on the phone!



Name:
Alexander Campbell

Job Title:
Head of Service, VPIS

How long have you worked for VPIS?
Since it started and before! I joined Guy's Poisons centre in 1988, and managed setting up VPIS as a subscription service in 1992. You may know me as the voice of the greetings message when you call!

What do you most like about your job?
Talking! Seriously, I like those tricky enquiries requiring speedy hunting to find the best sources on which to base the case-specific advice we aim to give. It's good to see the follow-ups and know the animal survived and that the caller was satisfied!

What do you most dislike about the job?
1) Night shifts! 2) Calls about antifreeze in cats.

What is your most memorable VPIS telephone enquiry?
So many! It has to be the call about a barn owl that ate some "magic mushrooms".

What is the silliest thing you have said down the phone?
Hello, Poisons – please hold –me!

Do you / did you have a pet / pets?
Had a rabbit - 4 weeks after I got him he went to the vets and never re-emerged – very traumatic. The vet is still VPIS registered! My late father rescued animals all the time so we had many - dogs, cats, guinea-pigs, and geese.

What are your hobbies / other interests?
Choral singing, opera & classical music, theatre, travel and eating & drinking....

Favourite food?
Anything except pineapple.

Favourite music?
Songs by Richard Strauss

Where is the most unusual place you have ever visited?
Aldabra

Favourite quote:
I do not believe in miracles. I have seen too many.