

“Management of Lily Intoxication under Covid-19 Restrictions”

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Cats affected by lily intoxication can be challenging cases. VVS have produced this advice sheet, to help vets navigate the decision-making process for lily intoxication cases during the challenges of COVID-19 restrictions.

General Considerations:

- Ingestion of any part of a lily plant results in nephrotoxicity in cats.
- Lily intoxication should be considered in any case of acute onset renal failure.
- If treated early the damage can be reversible.
- Lily pollen is commonly ingested from the coat when cats groom themselves and owners may not have noticed the cat in contact with the plant. Bear in mind that outdoor roaming cats may have encountered lily plants without the owner's knowledge.

Presenting Signs:

- Generally, cats will present with non-specific signs such as anorexia and lethargy.
- Vomiting is also regularly seen.

Diagnosis:

- Check baseline bloods, primarily to assess renal parameters and electrolytes. If electrolytes cannot be measured in-house then a sample should be sent externally.
- In any case of acute onset renal failure lilies should be suspected. There are of course many other causes, including other toxicities such as ethylene glycol toxicity. In the latter, neurological signs are often present and calcium oxalate crystals may be seen in the urine.

Treatment:

- If Lily pollen is still on the cat's coat, this should be quickly washed off. Sedation for this should be avoided due to the renal disease and vomiting frequently seen in these patients. Consider clipping fur, Elizabethan collars and pet shirts to prevent further ingestion if thorough washing not possible.
- Activated charcoal can be given (if the cat will take it) as this is an effective adsorbent for ingested toxins.
 - Dose: 1-4g/kg PO. This can be mixed with a small amount of food to make it more palatable.
- An intravenous (IV) catheter should be placed and Intra Venous Fluid Therapy (IVFT) given.
 - The rate will depend on the case, but a suggested starting dose is 5-6 ml/kg/hr.
 - It is essential that the cat is regularly checked for signs of volume overload:
 - Check weight twice a day.
 - Regular thoracic auscultation to check for development of crackles.
 - Regular checks of demeanour and to check for tachypnoea.
 - Regular checks to assess for development of serous nasal discharge.
- Urine output should be closely monitored.
 - Cats which develop anuria have a very poor prognosis. It is crucial that these cats are not volume overloaded. Frusemide can be given in an attempt to promote diuresis.
 - If the cat is truly anuric, euthanasia should be considered if referral for peritoneal dialysis is not possible. Even with peritoneal dialysis, the prognosis is unfortunately very poor (most cases in the literature have died or been euthanized despite intensive treatment) and current restrictions may mean referral for this is less appropriate.

Ongoing Monitoring:

- Renal parameters and electrolytes should be monitored daily.
- For cats that are vomiting, maropitant can be considered.
- IVFT can be stopped once renal values have normalised and the patient is eating. In some cases, the renal parameters will not normalise as chronic renal failure will develop. In these cases, ideally IVFT should be continued for a week to allow as much supportive care as possible.
- Renal parameters should be checked 24hours after stopping IVFT and at increasing intervals thereafter.

Specific Note re COVID-19

- This information sheet was published on 28/04/20. BVA and RCVS guidelines may be subject to regular change over the coming months. Please check for updates at:
BVA: <https://www.bva.co.uk/>
RCVS: <https://www.rcvs.org.uk/home/>
- Lily intoxication patients may require intensive nursing care and this often requires more than one staff member to be working in close proximity.
- Ensure that social distancing guidelines are maintained and/or that appropriate Personal Protective Equipment (PPE) is supplied to staff, to minimise transmission of COVID-19.
- If staffing levels or staff safety cannot be maintained to enable appropriate levels of care for the patient, then it may be necessary to consider alternative options, including referral
- Animal welfare should be a priority, but so should human safety in these challenging and unprecedented times. Look after yourself and your team, as well as your patient.

If you would like to speak to a VVS Specialist about any of your cases, please do not hesitate to contact us:

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VVS Specialists are here to help and can review clinical history and test results and advise you on your cases as and when you need support.

You may be working sole charge, but you are not alone.