

Treatment of Oleander Poisoning with V285

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Introduction

Poisoning with toxic plants, because of the high rate of mortality, has its own significance in veterinary medicine. Oleander (*nerium oleander*) one of the highly toxic plants, originally was a Mediterranean and Asian plant and now is widely distributed in the world. It grows rapidly, and consequently needs frequent pruning. All parts of oleander are toxic to animals and human beings, although it is said that the seeds are more toxic than the other parts. Most common manifestations of oleander poisoning are cardiac rhythm disturbances, arrhythmias or dysrhythmias. Cardiac glycosides, such as poison of oleander, are responsible for these signs and act pharmacodynamically similar to digitalis.

In this study, efficacy of V285 (vinegar) on calves experimentally poisoned with oleander was evaluated. This treatment has had good results in previous experimental studies.

Materials and Methods

Six calves of both sexes aged between five to nine months were selected for experiment. Powdered dry leaves in a single lethal dose were administered orally to the group and treatment with vinegar was carried

out. The vital signs of the animals were examined carefully, at the time of experiments and ECGs of animals were monitored. Blood samples were then submitted to the laboratory for extraction of oleander toxins. Toxins were then studied and assayed by UV spectrometer model PU8750. A 0.5-litre dose of Philips vinegar was administered orally every hour after poisoning, up to four doses.

Results and Conclusions

Absorption of oleander toxin in the early hours of the experiment produced bradyarrhythmias, probably due to its direct effect on the heart and the vagal effects of cardiac glycosides. As poisoning progressed, more absorption of toxin occurred and concentration of the new chemical complexes in the blood become adequate to produce tachyarrhythmias. In almost all cases where ventricular tachycardia occurred, ventricular fibrillation consequently followed and caused death in a few minutes. Vinegar had no effect, against poisoning in five calves, while one that did not show tachyarrhythmias survived. Further investigation into treatment with vinegar should be performed to obtain additional information on this potential antidote.