Preface

Toxicology

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Guest Editors

The last issue of *Veterinary Clinics of North America: Small Animal Practice* devoted to toxicology was published in March of 1990. Since that time, several toxicants traditionally of concern to the small animal practitioner such as strychnine, organophosphorus and carbamate insecticides, and lead are less frequently encountered as causes of intoxication in pets. For example, the introduction and marketing of newer, safer, and more conveniently administered insecticides such as fipronil, imidacloprid, the macrolide endectocides, and nitenpyram for use on pets, combined with increasing concern about both the health and environmental impacts and limited availability of organophosphorus and carbamate insecticides, has led to a lower incidence of intoxication from the latter chemicals.

However, the potential for intoxication from newly introduced chemicals and better diagnosis of previously unrecognized intoxications have significantly changed and expanded what toxic etiologies should be included on differential lists. Two major factors have contributed to the profession’s enhanced ability to recognize and document small animal intoxications. The establishment of dedicated animal poison control centers allows for the recognition of new and emerging toxicants by tabulating and comparing large volumes of call-related data over an extended period of time. In addition, the increasing sophistication of veterinary toxicology analytical laboratories has greatly enhanced our ability to detect and quantify a broad array of chemical substances from both antemortem and postmortem samples.

While this issue of *Veterinary Clinics of North America: Small Animal Practice* reviews several traditional toxicants, many new toxicants, along with appropriate management of intoxicated animals, are discussed. The first two chapters of this issue are devoted to treatment of intoxicated
animals. Chapter One discusses approaches to decontamination and Chapter Two discusses several newer antidotal agents that have become available in recent years. Chapter Three is devoted to a discussion of how to perform a proper exposure assessment so that appropriate case management can occur. Chapter Four focuses on the collection and submission of fluid, tissue, and environmental samples to assist in the diagnostic process. Chapters Five through Eight focus on naturally-occurring toxins including herbs and dietary supplements, household and ornamental plants, mushrooms, and mycotoxins. The discussion of herbs and dietary supplements is especially timely given the increasing popularity of complementary and alternative medical modalities in veterinary medicine.

Hazards associated with prescription and over-the-counter (OTC) human and veterinary medications are discussed in Chapters Nine and Ten. It is always interesting to see the incidence of pet intoxications parallel the popularity of human prescription and OTC drugs. For example, the number of pets exposed to and intoxicated by amphetamine derivatives used to treat attention deficit hyperactivity disorder in children has increased in conjunction with their increasing use in human medicine.

Insecticides and rodenticides account for the greatest number of animal intoxications, although the overall incidence of intoxication from insecticides is undoubtedly lower today than a decade ago due to the introduction of newer and safer products. Several of the newer insecticides are discussed in Chapter Eleven. As a group, the anticoagulant rodenticides are likely to be the most commonly encountered toxicant in practice. However, with early diagnosis and appropriate treatment, most intoxicated animals will make a full and complete recovery. The anticoagulant rodenticides and other, chemically diverse rodenticides such as cholecalciferol, bromethalin, strychnine, and zinc phosphide are discussed in Chapter Twelve.

The highly qualified authors come from both poison control center and diagnostic laboratory backgrounds. Hopefully, this edition of the Veterinary Clinics of North America will provide a valuable, updated resource for the small animal practitioner with the dual goals of successfully preventing and treating the intoxicated pet.

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