

CLINICAL SIGNIFICANCE OF NUTRITIONAL ISSUES

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Abstract

Along with disease prophylaxis and risk-based quarantine protocols, comprehensive pathology and nutritional programs are cornerstones of a holistic preventive health program for zoological collections. Unfortunately, the accepted “normal” for accredited and “modern” institutions includes a scenario that regularly exists whereby the clinical veterinarian(s) also serve as the primary pathologist and nutritionist on site. Although tissues need to be sent to pathologists for final histological evaluation, all veterinarians go through the same basic training in pathology and so can usually pass as efficient prosectors and recognize many gross necropsy findings. Where nutrition is concerned, however, the level of training in veterinary schools is fairly minimal and/or is often focused on production animal operations. Even where pet nutrition is concerned, the level of knowledge gained in veterinary school does not translate well across the numerous taxa encountered by zoological veterinarians. Consequently, most clinicians are significantly outside their “comfort zone” when it comes to prescribing diets to the collection, particularly when deficiencies, excesses, and imbalances arise.

Still, even when nutritionists or nutrition-focused staff exist, clinical veterinarians play an important role in nutritional management, particularly in the area of food safety/toxicity, but also as part of a larger team charged with constant monitoring of animal body condition and health. Understandably, clinicians approach most nutritional issues from the consequence or outcome side of things, working backwards through treatment to prevention. In comparison, husbandry and nutritional staff have a default ability to be more proactive by addressing potential behaviors (e.g. aggression, stress, competition) and food type/presentation challenges (e.g. calories, vitamins, minerals, fats, browse, fiber) at the onset of exhibit design and diet creation.

Even with the best planning, not all outcomes can be predicted and invariably nutritional issues will arise. Though there may be tendency (or desire) to put the responsibility of resolution in the clinical veterinarians’ court, success where active cases/issues are concerned and prevention of future cases is better served if all stakeholders are involved. In addition to the common suspects (husbandry, nutrition, and veterinary staff), point individuals from finance, public relations, administration, horticulture, and facilities may be required or appropriate in addressing a particular issue. On the other end of the spectrum, prevention, both nutrition and veterinary staff should be involved in exhibit design and collection planning to comment on potential issues related to maintenance of a particular species. This is often of paramount importance where mixed species exhibits and/or reproductive populations are concerned.