ADVANCES IN FELINE NUTRITION 1: COMMERCIALY AVAILABLE BEEF AND HORSEMEAT-BASED RAW MEAT DIETS FOR CAPTIVE EXOTIC FELIDS

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ABSTRACT

The predominant diet types fed to captive exotic felids are raw meat supplemented with vitamins and minerals, raw meat-based commercial diets, and whole prey. There is a paucity of information on the nutritive value of many of the dietary options. In the US, commercial raw-meat based diets are the main diet type fed (Pearson, et al., 2005). Reported values for apparent digestibility of raw meat diets are highly variable (DM: 66-89%, CP: 73-96%, fat: 73-99%) (Barbiers, et al., 1982; Crissey, et al., 1997; Edwards, et al., 2001; Wynne, 1989). Data can vary due to diet composition, species examined, housing conditions, etcetera. It is expected that dietary ingredient and nutrient composition for these dietary types vary overtime, and examination of contemporary diets is needed. The objective of our studies was to examine commercially available raw meat based diets for captive exotic felids. Study I was designed to evaluate differences due to species in nutrient digestibility and fecal characteristics of a raw beef-based diet (Vester, et al., 2008). We utilized five large exotic captive felid species, including bobcats, jaguars, cheetahs, Indochinese tigers, and Siberian tigers. Study II was designed to examine the differences in nutrient digestibility and fecal characteristics between commercially available beef- and horsemeat-based diets. We utilized domestic cats, and large captive exotic felid species, including cheetahs, Malayan tigers, jaguars, and Amur tigers (Vester, et al., 2010). In both studies, diets were highly digestible, and differences were noted between species for nutrient and energy digestibility and fecal characteristics. In study II, differences were noted for nutrient digestibility and fecal characteristics between diets, however, differences cannot be attributed to protein source alone, as the ingredient composition, including fiber source differed between diets. Few interactions between diet and species were noted. These data indicate that species should be considered when feeding captive exotic felids. And the differences in nutrient and energy digestibility between species should be taken into consideration for caloric feeding recommendations. The differences seen between diets indicate that one diet may not be appropriate for all species. Further research is needed to determine the impact of individual dietary components (ie., protein source, fiber source, etcetera).

REFERENCES


