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Secondary nutritional hyperparathyroidism in Bengal cats

Dear Editor

We would like to bring to the attention of your readers and the general veterinary community an increasing number of Bengal kittens (seven within the past year) that have presented with pathological fractures, particularly vertebral fractures, as a result of secondary nutritional hyperparathyroidism.

Clients of affected cats report they have been advised to feed pure meat diets (eg, raw meat, cooked chicken) at the time of acquiring these kittens. Such diets are deficient in calcium and phosphate and have completely inappropriate calcium:phosphate ratios to support normal bone growth (Freeman and Michel 2001, Taylor and others 2009, Hutchinson and others 2012).

Our experience has been that kittens fed such unbalanced and incomplete diets are being presented with multiple pathological fractures following a relatively minor trauma. In these cases the bone mineral density is decreased on radiographs; however, it should be noted that radiography is not as sensitive as CT at detecting more subtle changes.

Some of these kittens have had an improvement in their clinical signs with strict rest, and normalisation of bone mineral density following dietary change to a balanced and complete diet designed for growth. Sadly, however, a number of kittens have been euthanased due to the severity of their clinical signs related with the pathological fractures.

We would welcome colleagues highlighting the importance of feeding complete and balanced diets to pets, particularly growing animals, such as Bengal kittens. They are welcome to contact us if they require further advice on a case that they think may have secondary nutritional hyperparathyroidism.

Yours Sincerely,

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Freeman, L.M., Kichel, K. E. (2001) Evaluation of raw food diets for dogs. *Journal of the American Veterinary Medical Association* 218, 705-709

Taylor, M.N., Geiger, D.G., Saker, K.E., Larson, M.M. (2009). Diffuse osteopenia and myelopathy in a

puppy fed a diet composed of an organic premix and raw ground beef. *Journal of the American Veterinary Medical Association* 234, 1041-1048

Hutchinson, D., Freeman, L.M.m McCarthy, R., Anastasio, J., Shaw, S.P., Sutherland-Smith, J. (2012) *Journal of the American Veterinary Medical Association* 241, 477-483