

LOOK FOR THESE RESPECTED COMMENTATORS IN THIS ISSUE:

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New Analgesic for Pain in Cats

There are no FDA-approved analgesics for treating chronic pain in cats. The disparity in treatment options between dogs and cats has led to the evaluation of novel therapies that have been described in humans, dogs, and rodents.

Nerve Growth Factor (NGF), a peptide hormone essential for the survival of sensory and sympathetic neurons during development, is expressed at the site of injury and inflammation in adults. NGF causes sprouting of nerve endings into the site of inflammation, has been detected in neuromas, and is a major factor promoting pain and hyperalgesia. Monoclonal antibodies that neutralize NGF have been found to be effective analgesics in rodent models, humans with osteoarthritis, and dogs with degenerative joint disease.

This study used an experimental in vivo model for inflammation. Kaolin, which produces predictable swelling and lameness that resolves on its own in 7 to 14 days, was injected into the right rear foot pad of cats under sedation.

Cats ($n = 30$; 1 died under sedation) were divided into 2 groups; 1 group received 2 mg/kg anti-NGF SC and the other group received phosphate-buffered solution. The data supported the hypothesis that neutralization of NGF in cats that received anti-NGF may provide analgesia, as it reduced lameness scores

in the experimental group. However, it did not, as in other studies, reduce the inflammatory pyrexia and swelling secondary to the kaolin injection. The model did not allow for long-term evaluation of the injection as an analgesic. Studies of cats with degenerative joint disease will be important in determining the duration of efficacy of anti-NGF.

Commentary

This new class of analgesics has clinical importance in dogs and cats and potentially in horses and other domestic species with chronic inflammatory conditions. Unfortunately, there is a deficiency of evidence-based therapies for treating all forms of pain in cats and a lack of FDA-approved therapies. Future product development relies heavily on the recommendations of therapies by general practitioners. This highlights the importance of learning about and discussing these new potential options.—*Heather Troyer, DVM, DABVP, CVA, CVPP*

Source

Gearing DP, Huebner M, Virtue ER, et al. In vitro and in vivo characterization of a fully felinized therapeutic anti-nerve growth factor monoclonal antibody for the treatment of pain in cats. *J Vet Intern Med.* 2016;30(4):1129-1137.

There is a deficiency of evidence-based therapies for treating all forms of pain in cats.

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