



# WINN Feline Foundation

*For the Health and Well-being of All Cats*

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## FINAL REPORT:

### **Treatment for visceral pain with the new NNK-1 receptor antagonist "maropitant" in cats**

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The investigators examined effects of two parameters on the amount of inhalant anesthetic drug required to maintain the anesthetic state during surgery. During surgical procedures like ovariohysterectomy (spay), the abdominal organs are manipulated. Notably, the ovaries and uterus are touched and moved, which can cause pain. This pain can affect the amount of anesthesia needed in order to prevent the pain sensation for the cat. However, extraneous factors may affect the levels of anesthesia needed as well. Some can actually decrease the amount of anesthetic drug needed to maintain the pain-free state. Since the goal of any anesthetic is to use the minimal amount needed to maintain the state, it is important to know how certain factors affect the drug level required.

The parameters they evaluated were pregnancy – as many cats presented for spaying are pregnant; and the use of an antiemetic drug, maropitant – many anesthetics can cause nausea and vomiting, thus it is important to know if these medications affect the amount of anesthetic drug needed.

The investigators found that both parameters, pregnancy and the use of the anti-emetic drug decreased the amount of anesthetic required. This finding indicates that levels of anesthesia needed during spaying can be decreased in cats that are pregnant, as well as in cats receiving this anti-emetic drug. Additionally, in terms of the antiemetic drug, these findings may indicate that this drug is also useful in awake cats as an analgesic. Its apparent ability to minimize the pain of surgical manipulation could indicate that it will be useful as a pain medication for cats. This drug has very few side effects, and is approved for use in cats; thus, this study has added a safe drug to the choices available for treating pain in cats.

As an aside, this study allowed the spaying of cats that likely would not have been possible otherwise, including feral and homeless cats.

*Summary prepared by Melissa Kennedy DVM, PhD, DACVIM*

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