

## FOCUS

## Feline Intestinal Carcinoma &amp; Carboplatin Chemotherapy

Feline colonic adenocarcinoma (locally invasive, highly metastatic) requires wide surgical excision (subtotal colectomy), which may be followed by systemic chemotherapy. Carboplatin, a platinum-based alkylating agent, is relatively safe in cats.

This study assessed the safety and efficacy of subtotal colectomy followed by carboplatin chemotherapy. Medical records of 18 cats with colonic adenocarcinoma were reviewed. Clinical presentations included weight loss ( $n = 14$ ), inappetence ( $n = 12$ ), vomiting ( $n = 8$ ), diarrhea ( $n = 13$ ), and tenesmus ( $n = 13$ ). Subtotal colectomy was performed in all cats and surgical margins were judged to be complete; however, nodal metastasis was noted in 6 cats. Carboplatin was administered postsurgically at a median dose of  $200 \text{ mg/m}^2$  (range,  $200\text{--}245 \text{ mg/m}^2$ ) IV q4wk for a median of 5 doses/cat. There were no treatment delays from myelosuppression or GI toxicity. Adverse effects included mild neutropenia and mild or moderate thrombocytopenia. Cats were restaged 6 months after receiving carboplatin, sooner if signs recurred. Results showed a median disease-free interval of 251 days (range, 37–528 days) and median survival time of 269 days (range, 40–533 days). Weight loss at initial presentation was a positive prognostic predictor of disease-free interval, whereas nodal and distant metastasis were negative prognostic factors of median survival. Carboplatin was concluded to have minimal toxicity and be a reasonable adjunct to surgical treatment.

## ■ Commentary

Intestinal carcinomas are the second most common primary GI tumor (behind lymphoma) and the most common colonic tumor. Adenocarcinoma is best treated with subtotal colectomy and adjuvant chemotherapy. GI lymphoma is usually best treated with chemotherapy alone; surgery may be indicated if obstruction or perforation is evident. Ultrasound-guided fine-needle aspiration and cytology can provide a safe, minimally invasive way to distinguish these cancers and should be considered before aggressive therapy.

Median survival in this study evaluating surgery and carboplatin was similar to that in a previous study in which cats were treated with surgery and doxorubicin (251 days versus 280 days).<sup>1</sup> Doxorubicin and carboplatin have different mechanisms of action, and cross-resistance is not expected. Therefore, to maximize treatment efficacy, it would be reasonable to consider using both drugs on an alternating basis when treating cats with colonic adenocarcinoma.—Dennis Bailey, DVM, DACVIM (Oncology)

## ■ ■ Source

A review of 18 cases of feline colonic adenocarcinoma treated with subtotal colectomies and adjuvant carboplatin. Arteaga TA, McKnight J, Bergman PJ. JAAHA 48:399-404, 2012.

1. Malignant colonic neoplasia in cats: 46 cases (1990-1996). Slawinski MJ, Mauldin GE, Mauldin GN, Patnaik AK. JAVMA 211:878-881, 1997.

## ■ ■ ■ For More

For more information on carboplatin and other chemotherapy options, see **Commonly Used Chemotherapy Drugs: Part 1** by Dr. Antony Moore at [cliniciansbrief.com/common-chemo-drugs-1](http://cliniciansbrief.com/common-chemo-drugs-1)

MORE ►

## COMFORTIS®-Cats (spinosad)

## Chewable Tablets

Before using COMFORTIS chewable tablets, please consult the product insert, a summary of which follows:

**Caution:** Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

**Indications:**

COMFORTIS kills fleas and is indicated for the prevention and treatment of flea infestations (*Ctenocephalides felis*), for one month, on cats and kittens 14 weeks of age and older and two pounds of body weight or greater.

**Dosage and Administration:**

COMFORTIS is given orally once a month, at the minimum dosage of  $22.5 \text{ mg/lb}$  ( $50 \text{ mg/kg}$ ). Administer COMFORTIS with food for maximum effectiveness. If vomiting occurs within an hour of administration, redose with another full dose. If a dose is missed, administer COMFORTIS with food and resume a monthly dosing schedule.

**Contraindications:**

There are no known contraindications for the use of COMFORTIS.

**Warnings:**

Not for human use. Keep this and all drugs out of the reach of children.

**Precautions:**

Use with caution with concomitant extra-label use of ivermectin. The safe use of COMFORTIS in breeding, pregnant, or lactating cats has not been evaluated.

**Adverse Reactions:**

In a well-controlled US field study, which included a total of 211 cats (139 treated with COMFORTIS and 72 treated with an active topical control once a month for 3 treatments), no serious adverse reactions were attributed to the administration of COMFORTIS. The most frequently reported adverse reaction in cats was vomiting.

## Percentage of Cats (%) with Adverse Reactions

	Month 1		Month 2		Month 3	
	COMFORTIS (n=139)	Active Topical Control (n=72)	COMFORTIS (n=135)	Active Topical Control (n=69)	COMFORTIS (n=132)	Active Topical Control (n=67)
Vomiting	14.4	1.4	14.8	1.4	13.6	4.5
Lethargy	3.6	0	0.7	0	1.5	1.5
Anorexia	2.2	0	0.7	0	2.3	1.5
Weight Loss	1.4	0	0	0	3	0
Diarrhea	1.4	1.4	0.7	2.9	2.3	1.5

Over the 3-month (3-dose) study, vomiting occurred on the day or the day after at least one dose in 28.1% (39/139) of the cats treated with COMFORTIS and in 2.8% (2/72) of the cats treated with the active topical control. Three of the 139 cats treated with COMFORTIS vomited on the day of or the day after all three doses. Two cats that received extra-label topical ivermectin on Day -1 of the field study developed lethargy on Day 1 after COMFORTIS administration on Day 0.

For technical assistance or to report an adverse drug experience, call Elanco at 1-888-545-5973. Additional information can be found at [www.comfortis.com](http://www.comfortis.com). For a complete listing of adverse reactions for spinosad reported to the Center for Veterinary Medicine, see Adverse Drug Experience Reports under <http://www.fda.gov/AnimalVeterinary/SafetyHealth/ProductSafetyInformation>

**Effectiveness:**

In a well-controlled laboratory study, COMFORTIS began to kill fleas 30 minutes after administration and demonstrated 98% effectiveness within 4 hours. COMFORTIS kills fleas before they can lay eggs. In a separate well-controlled laboratory study, COMFORTIS demonstrated 100% effectiveness on the first day following treatment and >90% effectiveness on Day 30.

If a severe environmental infestation exists, fleas may persist for a period of time after dose administration due to the emergence of adult fleas from pupae already in the environment. In a field study conducted in households with existing flea infestations, flea count reductions of 97.5% were observed one month after the first treatment and 99.3% after three monthly treatments with COMFORTIS. Cats with pre-existing signs of flea allergy dermatitis showed improvement in erythema, papules, scaling, alopecia, dermatitis/pyodermitis, and pruritus as a direct result of eliminating the fleas.

**Storage Information:**

Store at  $20$  to  $25^\circ\text{C}$  ( $68$  to  $77^\circ\text{F}$ ), excursions permitted between  $15$  to  $30^\circ\text{C}$  ( $59$  to  $86^\circ\text{F}$ ).

**How Supplied:**

COMFORTIS is available in four tablet sizes for use in cats: 90, 140, 270 or 560 mg. Each tablet size is available in color-coded packages of 6 tablets.

NADA #141-277, Approved by the FDA

Manufactured by Elanco Animal Health, A Division of Eli Lilly and Company, Indianapolis, IN 46285

EP085610AMA

V01-07-2012