

MASTOCITOMA EN EL GATO

NOEMÍ DEL CASTILLO MAGÁN

LV, PHD, ACREDITADA GEVONC AVEPA

NOEMIDELCASTILLOM@GMAIL.COM



Surbatan
centro asistencial
veterinario





GENERALIDADES

- Presentación como 3 síndromes diferentes:
 - Cutáneo
 - Esplénico/ visceral
 - Intestinal
- Etiología desconocida
- No relacionada con virus
- Tinciones: Giemsa, Toluidina
- Heparina, histamina

MASTOCIMA CUTÁNEO

- Segundo tumor cutáneo en el gato (20% de los tumores cutáneos)
- 8-9 años, Siamés
- Normalmente:
 - Solitario
 - Elevado
 - Firme
 - Bien delimitado
 - Sin peplo
 - Dérmico
 - 0,5-3 cm
 - Ulceración $\frac{1}{4}$
 - Menos frecuente: placas pruriginosas
- 20% presentación múltiple
- Localización:
 - Cabeza, cuello
 - Tronco, extremidades y otros



MASTOCIMA CUTÁNEO

■ Presentaciones:

- Mastocítica (similar a MTC canino): 10 años
 - Compacto (50-90%):
 - Comportamiento benigno
 - Metástasis raras
 - Difuso (anaplásico):
 - Alto IM
 - Pleomorfismo nuclear y celular
 - Infiltración de tejido subcutáneo
 - Metástasis: ganglios linfáticos abdominales
- Histiocítica (puede regresar espontáneamente en 4-24 meses): 2-4 años

• **TABLE 20-7** Histologic Classification of Mast Cell Tumors in Cats

| TYPE | SUBTYPE | MICROSCOPIC DESCRIPTION |
|-------------|-------------------------------|---|
| Mastocytic | Compact (well-differentiated) | Homogeneous cords and nests of slightly atypical mast cells with basophilic round nuclei, ample eosinophilic cytoplasm, and distinct cell borders. Eosinophils conspicuous in only half of cases. |
| | Diffuse (anaplastic) | Less discrete, infiltrated into subcutis. Larger nuclei (>50% cell diameter), 2-3 mitoses/HPF. Marked anisocytosis, including mononuclear and multinucleated giant cells. Eosinophils more commonly observed. |
| Histiocytic | | Sheets of histiocyte-like cells with equivocal cytoplasmic granularity. Accompanied by randomly scattered lymphoid aggregates and eosinophils. Granules lacking in some reports, others report granules readily demonstrable. |

Feline cutaneous mast cell tumours: a UK-based study comparing signalment and histological features with long-term outcomes

Journal of Feline Medicine and Surgery
2015, Vol. 17(6) 486–493
© ISFM and AAFF 2014
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1098612X14548784
jfms.com


Kirsty Melville¹, Ken C Smith¹ and Melanie J Dobromylskyj²

Abstract

Feline cutaneous mast cell tumours (MCTs) are the second most common skin tumour in cats; but, unlike in dogs, there is currently no histological grading system for this type of tumour. This study recorded the signalment and anatomical location from a total of 287 records from MCTs submitted to a UK commercial diagnostic laboratory. Questionnaires to submitting practices were used to obtain follow-up data, and the histological features of 86 tumours were evaluated from 69 cats with a known outcome. Twelve of the 69 cats (17.4%) died of MCTs, with significantly lower survival times. The median age of cats presenting with MCTs was 11 years (range 5 months–19 years), with no sex or neutered status predilection. Some pedigree breeds were more susceptible to MCTs, particularly the Siamese, Burmese, Russian Blue and Ragdoll. The head was the most common site in younger cats, compared with the trunk in older cats. The number of tumours had no effect on survival. A new subcategory of well-differentiated MCTs with prominent multinucleated cells is described, and three of the five cats with this novel form died from MCT-related disease. There was an association between mitotic index and survival time. However, there was no significant association between histological type and survival.



MASTOCIMA CUTÁNEO

- Sintomatología:
 - Prurito intermitente, eritema
 - Autotraumatismo
 - Ulceración
 - Síndrome de Darier
 - Regresión espontánea (presentación histiocítica)
- Diagnóstico:
 - Citología
 - Biopsia:
 - Bien diferenciado mastocítico
 - Pleomófico mastocítico
 - Atípico o histiocítico
 - Ecografía



MASTOCIMA CUTÁNEO

- Tratamiento:
 - Cirugía:
 - Potencialmente curativo
 - Los márgenes no son tan importantes como en el perro
 - Metástasis después de cirugía 0-22%
 - Radioterapia:
 - Si cirugía incompleta
 - Quimioterapia:
 - Indicada:
 - Tumores anaplásicos
 - IM elevado

Periocular cutaneous mast cell tumors in cats: evaluation of surgical excision (33 cases)

Keith W. Montgomery,* Alexandra van der Woerd†, Susette M. Aquino,† John S. Sapienza‡ and Eric C. Ledbetter*

Abstract

Objective To describe feline periocular cutaneous mast cell tumor (CMCT) clinical features, rates of local tumor recurrence and metastases, and cat survival time following surgical excision.

Animals studied Thirty-three cats with periocular CMCTs.

Procedures Medical records of cats diagnosed with periocular CMCTs were reviewed; cats were included if CMCTs were surgically excised and the diagnosis confirmed by histopathology. The appearance, size, location and histopathology findings of CMCTs were recorded. Rates of local recurrence, metastasis, and survival time following surgical excision were collected when available.

Results All periocular CMCTs were restricted to the eyelids. In addition to surgical excision, three cats were treated with adjunctive therapy (strontium-90 irradiation or cryotherapy) intraoperatively. Local tumor control was achieved in 22/23 cats with a minimum follow-up of 30 days (median follow-up time of 711 days); one cat developed disseminated CMCTs but no local recurrence. Cats with periocular CMCTs had a median survival time of 945 days. Metastatic disease involving peripheral lymph nodes or abdominal viscera was not detected in any cat at any time during the study. All periocular CMCTs were classified as low-grade based on histopathology, and complete excision was achieved in approximately 50% of cases.

Conclusions Surgical excision of periocular CMCTs in cats is an effective treatment option with rare local recurrence and metastases, even following incomplete surgical excision.

Retrospective evaluation of toceranib phosphate (Palladia) use in cats with mast cell neoplasia

Erika P Berger¹, Chad M Johannes¹, Gerald S Post², Gillian Rothchild², Kai-Biu Shiu³, Sarah Wetzel³ and Leslie E Fox¹

Journal of Feline Medicine and Surgery
2018, Vol. 20(2) 95–102

© The Author(s) 2017

Reprints and permissions:

sagepub.co.uk/journalsPermissions.nav

DOI: 10.1177/1098612X17695898

journals.sagepub.com/home/jfms

This paper was handled and processed by the American Editorial Office (AAFP) for publication in *JFMS*



documentation of adverse events.

Results Case data from 50 cats with cutaneous (n = 22), splenic/hepatic (visceral) (n = 10), gastrointestinal (n = 17) or other (n = 1) mast cell neoplasia were received. Clinical benefit was seen in 80% (40/50), including 86% (19/22) with cutaneous, 80% (8/10) with visceral and 76% (13/17) with gastrointestinal involvement. A majority of cats (n = 35) received glucocorticoids during toceranib treatment. Median duration of treatment in cats experiencing clinical benefit was 36 weeks (range 4–106 weeks), 48 weeks (range 12–199 weeks) and 23 weeks (range 13–81 weeks) for cutaneous, visceral and gastrointestinal cases, respectively. Toceranib was administered at a median dose of 2.5 mg/kg (range 1.6–3.5 mg/kg); in 90% (45/50) the drug was given three times per week. Treatment was generally well tolerated with 60% (30/50) of cats experiencing adverse events. The majority of these events were low-grade (grade 1 or 2) gastrointestinal or hematologic events that resolved with treatment break and/or dose adjustment.

Conclusions and relevance Toceranib appears to be well tolerated in feline patients with mast cell neoplasia. Biologic activity of this drug is evident in the studied cats; however, further prospective studies are needed to elucidate fully its role in treatment of this disease.



MASTOCIMA CUTÁNEO

- Pronóstico:
 - IM > 3,5
 - Tipo histológico
 - Cirugía sin márgenes
 - Recidiva
 - Metástasis

MASTOCIMA VISCERAL

- Neoplasia esplénica más frecuente (15- 27%)
- Edad media 9-13 años
- Normalmente no asociado a MTC cutáneo
- Sintomatología:
 - Vómitos, anorexia, pérdida de peso
 - Disnea si efusión pleural
 - Espleno/hepatomegalia
 - Anemia 14-70%
 - Mastocitos circulantes 37-100%
- Diferenciales:
 - Linfoma
 - Enfermedad mieloproliferativa
 - Bazo accesorio
 - Hemangiosarcoma
 - Hiperplasia nodular
 - Esplenitis



MASTOCIMA VISCERAL

- Tratamiento:
 - Esplenectomía
 - Pretratamiento con antihistamínicos y antiácidos
- Pronóstico:
 - Esperanza de vida 12-19 meses
 - Últimos estudios 647 días
 - Factores negativos:
 - Anorexia
 - Pérdida de peso significativa
 - Machos
 - Anemia
 - Mastocitemia
 - Metástasis

Outcome and Prognostic Indicators in Cats Undergoing Splenectomy for Splenic Mast Cell Tumors

Kelly A. Kraus, VMD, Craig A. Clifford, MS, DVM, DACVIM (Oncology), Garrett J. Davis, DVM, DACVS, Kristina M. Kiefer, DVM, Kenneth J. Drobatz, DVM, MCSE, DACVECC, DACVIM

ABSTRACT

This was a multi-institutional retrospective study evaluating the outcome and clinical parameters associated with the postoperative prognosis of 36 cats with splenic mast cell tumors treated with splenectomy. Clinical parameters reviewed included signalment, clinical history, results of staging tests, surgical variables, administration of blood products, presence of metastasis, postoperative complications, administration of chemotherapy postoperatively, chemotherapy protocol, and response to chemotherapy. Overall median survival time was 390 days (range, 2–1737 days). Administration of a blood product ($P < .0001$), metastasis to a regional lymph node ($P = .022$), and evidence of either concurrent or historical neoplasia ($P = .037$) were negatively associated with survival. Response to chemotherapy ($P = .0008$) was associated with an improved median survival time. Larger-scale prospective studies evaluating different chemotherapy protocols are required to elucidate the discrepancy between lack of survival benefit with administration of chemotherapy and improvement in survival time with positive response to chemotherapy. (*J Am Anim Hosp Assoc* 2015; 51:231–238. DOI 10.5326/JAAHA-MS-6280)

Treatment outcomes and prognostic factors of feline splenic mast cell tumors: A multi-institutional retrospective study of 64 cases

B. J. Evans¹ | D. O'Brien² | S. D. Allstadt³ | T. P. Gregor⁴ | K. U. Sorenmo⁵

Received: 2 August 2016 | Revised: 7 November 2016 | Accepted: 20 December 2016

DOI 10.1111/vco.12305

ORIGINAL ARTICLE

WILEY **Veterinary and Comparative Oncology**

Background: Mast cell tumors (MCT) are common splenic tumors in cats, but there is limited information on treatment outcomes of cats with this disease.

Materials and methods: This retrospective study evaluated treatment outcomes in 64 cats with splenic MCT. Cats were categorized into the following treatment groups: splenectomy (A, n = 20); splenectomy with chemotherapy (B, n = 20); chemotherapy alone (C, n = 15); or supportive care (D, n = 9).

Results: Median tumor specific survival (MTSS) was: 856, 853, 244, 365 days for groups A, B, C, and D, respectively. The MTSS was not significantly different between the 4 groups. However, comparing cats that had splenectomy (A and B) versus those that did not (C and D), the MTSS was 856 and 342 days, respectively (p=0.008). None of the prognostic factors analyzed significantly influenced survival.

Conclusion: Splenectomy (+/- chemotherapy) significantly prolongs survival in cats with mast cell tumors. The role of chemotherapy remains unknown.

KEYWORDS

feline, mast cell tumor, mastocytosis, spleen, splenic mast cell tumor

Treatment outcomes and prognostic factors of feline splenic mast cell tumors: A multi-institutional retrospective study of 64 cases

B. J. Evans¹ | D. O'Brien² | S. D. Allstadt³ | T. P. Gregor⁴ | K. U. Sorenmo⁵

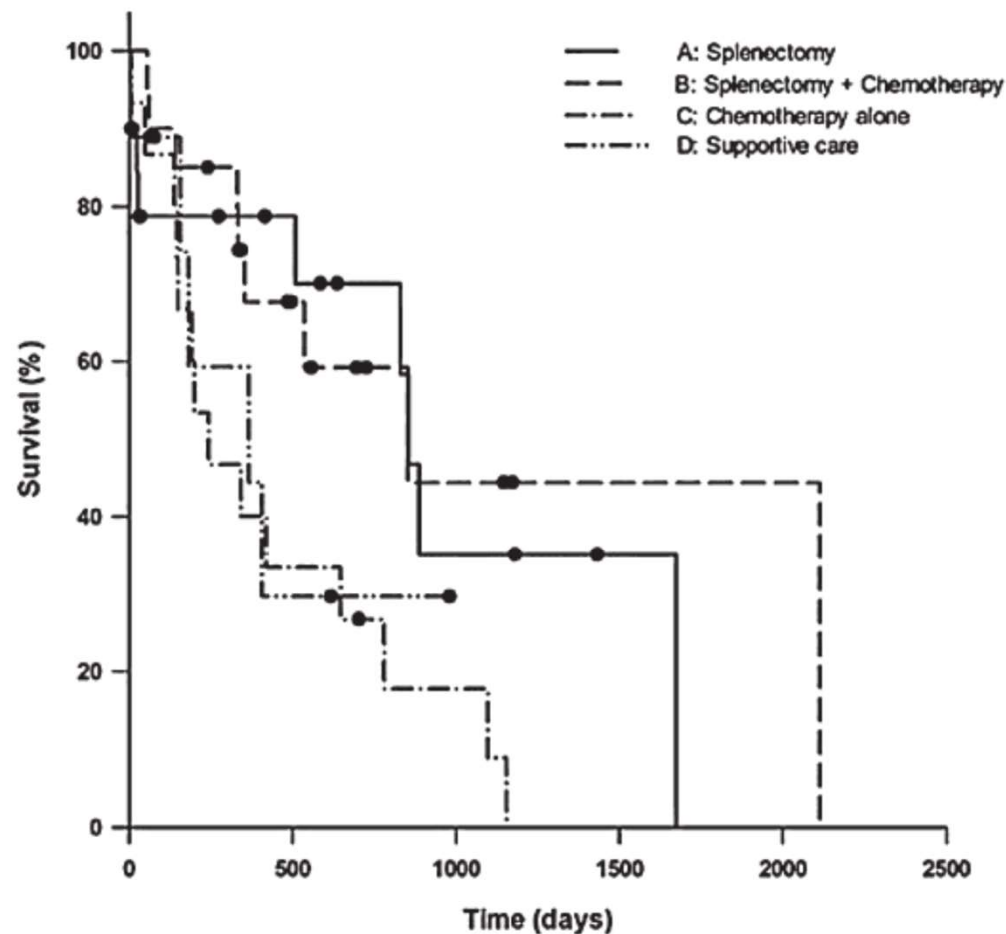


FIGURE 3 Kaplan-Meier curve comparing the survival of 64 cats with splenic mast cell tumors based on their treatment group. There were 20 cats each in groups A and B, 15 cats in group C and 9 cats in group D. Pairwise comparison of the treatment groups did not reveal a significant difference between the groups (see Table 2). Each darkened circle represents an animal censored from survival.

MASTOCIMA INTESTINAL

- 4% de todos los tumores en el gato
- Edad media 13 años
- Descrito en animales jóvenes
- Características:
 - Intestino delgado
 - Colon < 15% de los casos
 - Solitario/múltiple
 - Metástasis a ganglios linfáticos, hígado, bazo
- Sintomatología:
 - Vómitos, anorexia, diarrea
 - Masa palpable

MASTOCIMA INTESTINAL

- Tratamiento:
 - Cirugía
 - Márgenes 5-10 cm
 - Respuestas anecdóticas a la lomustina
- Pronóstico:
 - Reservado
 - Relacionado con tipo e IM
 - Variedad esclerosante (pocos meses)

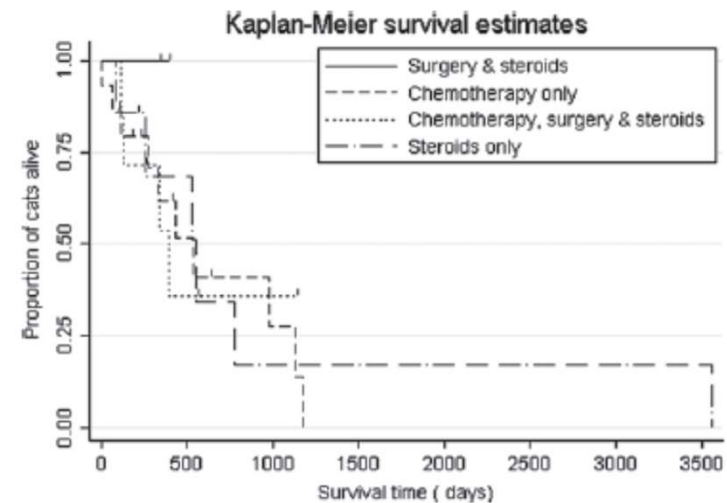


FIGURE 2 Overall survival time for all cats in the study according to treatment type. Chemotherapy ($n = 15$), MST 541 d (95% CI 112, 1130); Surgery and Chemotherapy ($n = 7$), MST 396 (118, NC) days; Glucocorticoid only ($n = 6$), MST 555 (86, NC) days; Surgery and glucocorticoid ($n = 3$), MST 340 d (394, 3561). No statistical difference in survival time was noted according to treatment administered

ORIGINAL ARTICLE

Outcome following treatment of feline gastrointestinal mast cell tumours



L. E. Barrett¹ | K. Skorupski²  | D. C. Brown¹ | N. Weinstein³ | C. Clifford⁴ | A. Szivek⁵ | S. Haney⁴ | S. Kraiza⁶ | E. L. Krick¹ 

TABLE 3 Univariate median survival time (MST) and 95% CI (in d) for all cats and according to small or large intestinal location, diagnosis of second cancers and treatment type (including specific comparisons according to whether or not treatment included surgical excision or chemotherapy)

| Variable | n (%) | MST (95% CI), days | P value |
|----------------------------|-----------|--------------------|---------|
| Tumour location | | | |
| Small intestine | 22 (71.0) | 343 (134, 778) | .05 |
| Large intestine | 6 (19.4) | 1130 (1130, NC) | |
| Second cancer | | | |
| Yes | 10 (32.3) | 396 (64, NC) | 1.0 |
| No | 21 (67.7) | 541 (256, 982) | |
| Treatment type | | | |
| Chemotherapy | 15 (48.4) | 541 (112, 1130) | .8 |
| Surgery and chemotherapy | 7 (22.6) | 396 (118, NC) | |
| Glucocorticoid only | 6 (19.4) | 555 (86, NC) | |
| Surgery and glucocorticoid | 3 (9.7) | *340, 394, 3561 | |
| Chemotherapy | | | |
| Yes | 22 (71.0) | 436 (272, 1130) | .6 |
| No | 9 (29.0) | 555 (86, NC) | |
| Surgical excision of mass | | | |
| Yes | 10 (32.2) | 396 (118, NC) | .2 |
| No | 21 (67.7) | 531 (256, 778) | |

NC, not calculable.

^a Due to sample size, individual patient survival time, not MST, reported.

Prognosis of feline gastrointestinal mast cell tumours (FGIMCT), based on limited available literature, is described as guarded to poor, which may influence treatment recommendations and patient outcome. The purpose of this study is to describe the clinical findings, treatment response, and outcome of FGIMCT. Medical records of 31 cats diagnosed with and treated for FGIMCT were retrospectively reviewed. Data collected included signalment, method of diagnosis, tumour location (including metastatic sites), treatment type, cause of death and survival time. Mean age was 12.9 y. Diagnosis was made via cytology ($n = 15$), histopathology ($n = 13$) or both ($n = 3$). Metastatic sites included abdominal lymph node ($n = 10$), abdominal viscera ($n = 4$) and both ($n = 2$). Therapeutic approaches included chemotherapy alone ($n = 15$), surgery and chemotherapy ($n = 7$), glucocorticoid only ($n = 6$) and surgery and glucocorticoid ($n = 3$). Lomustine ($n = 15$) and chlorambucil ($n = 12$) were the most commonly used chemotherapy drugs. Overall median survival time was 531 d (95% confidence interval 334, 982). Gastrointestinal location, diagnosis of additional cancers, and treatment type did not significantly affect survival time. Cause of death was tumour-related or unknown ($n = 12$) and unrelated ($n = 8$) in the 20 cats dead at the time of analysis. The prognosis for cats with FGIMCT may be better than previously reported, with 26% of cats deceased from an unrelated cause. Surgical and medical treatments (including prednisolone alone) were both associated with prolonged survival times. Treatment other than prednisolone may not be necessary in some cats. Continued research into prognostic factors and most effective treatment strategies are needed.

KEYWORDS

chemotherapy, feline intestinal neoplasms, mast cell tumours, surgery

GRACIAS