Radical en bloc resection with a minimum of 3 cm margins in feline injection-site sarcoma (FISS) – a retrospective analysis of 131 cases

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INTRODUCTION

For FISS radical resections with several centimeter margins have been recommended. Literature data on patients treated with surgery only are limited by low case numbers and are frequently not standardized in regards to resection width and depth, and/or lack details on parameters of possible prognostic significance such as tumour diameter, location, or primary versus recurrent tumours. The goal of this study was to describe the outcome in cats with FISS treated by standardized radical surgery as the sole treatment modality and to identify possible prognostic factors.

MATERIAL AND METHODS

131 cats with primary or recurrent FISS of interscapular or chest/abdominal wall location were evaluated retrospectively. All tumours were treated in the same institution and by the same surgeon. Tumour excisions were performed en bloc with lateral margins of at least 3 cm, deep margins for body wall tumours included full-thickness body wall resections, interscapular tumours were resected at least two

fascial planes deep including musculature and dorsal spinous processes. Parameters of presumed prognostic significance such as tumour diameter, location, primary versus recurrent tumour, and margin assessment were analyzed. Minimum follow-up was one year.

RESULTS

Overall median survival time (ST) and tumor free interval (TFI) was 25.5 and 21 months, respectively.

Patients with tumours of the abdominal wall had a significantly longer median ST (34 months; $p=0.012$) compared to patients with interscapular (24.5 months) and chest wall tumors (23 months). The overall tumour free interval (TFI) was 21 months with no significant difference between tumour locations. Overall recurrence rate (RR) was 38.1%, but patients presenting with a recurrent tumour ($n=27$) had a significantly higher RR compared to patients with tumours not previously operated on ($n=104$) (55.5% vs 31.7%; $p=0.005$). Patients with histologically "clean" tumour resections had a significantly longer median ST compared to patients with unclear margins (ST 26.5 vs. 16.0 months; $p=0.026$). More than 20% of the recurrences occurred later than 20 months after surgery.

CONCLUSIONS

To the authors knowledge this study represents the largest published series of cats with FISS treated with a standardized radical resection technique as sole treatment modality. Surgery using recommended resection margins still carries a significant risk of tumour recurrence. Adjuvant therapy should be considered especially in cats operated for recurrent FISS and for cases with unclear resection margins.

Small intestinal B cell lymphoma with unexpectedly long survival in three young dogs

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Small intestinal lymphoma is the second most common extra-nodal lymphoma in dogs. It is thought to arise from the mucosal associated lymphoid tissue (MALT). Such tumours are often high grade T cell lymphoma and the prognosis is considered poor with reported survival times ranging between 13 to 77 days. At QVSH we have seen a small number of young dogs with intestinal lymphoma experiencing unexpectedly long survival times, warranting a review of the presentation and histopathology.

A 1 year old male neutered Bishon Frise was presented for vomiting and anorexia. Ultrasound of the abdomen revealed a jejunal mass and mesenteric lymphadenopathy, liver and spleen were normal. Chest radiography revealed sternal lymphadenopathy. The jejunal mass and mesenteric lymph node were removed. The dog was treated with high dose COP chemotherapy protocol for 2 years and was alive at the time of writing at 1020 days after diagnosis.

A 4 years old female neutered Labrador, presented for chronic diarrhoea. Abdominal ultrasound revealed enlarged mesenteric lymph nodes and a thick jejunum and ileoceco-colic junction. A biopsy was obtained via exploratory laparotomy from both intestinal areas and mesenteric lymph node. The dog was treated with a short course of prednisolone, she was alive at the time of writing study at 510 days.

A 4 years old entire female Airedale terrier presented with melaena and anaemia. Abdominal ultrasound revealed a mass in the jejunum and a large mesenteric lymph node. No other abnormalities in the chest and abdomen were visualised. The intestinal mass and mesenteric lymph node were removed. The dog was treated with low dose COP for 2 years, the lymphoma relapsed 4 years later, total survival was 2520 days.

The tissue samples from each case were reviewed by a qualified pathologist and the diagnosis was confirmed by histopathology and immunohistochemistry. All three jejunal lymphomas were comprised of intermediate to large cells with nucleus size between 2-2.5 the size of a red blood cell and confirmed as high grade lymphoma, all were classified as B cell based on the CD79b positivity.

This short series highlights the possibility that small intestinal B cell lymphoma with jejunal involvement could have a better prognosis than other canine small intestinal lymphomas. We welcome similar cases for a larger series to confirm our observation.