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The Cutting Edge

Suspected Hodgkins-like Lymphoma in a Cat

A five-year-old male castrated domestic short-hair cat was presented with a lump in the right submandibular region. The lump was first identified by the owner approximately a week or two prior — it had grown in size quite slowly. The cat was bright and alert, eating and drinking normally and was not bothered by the owners palpating the area.

The mass was approximately 3cm in diameter, spherical, firm and subcutaneous in nature. A fine needle aspirate was performed and cytology appeared consistent with a “reactive” lymph node. The cat was treated with potentiated amoxicillin 50mg PO; BID for 10 days.

Eight weeks after completion of the antibiotics the cat was re-presented for continued enlargement of the submandibular mass. There had been no response to the antibiotic treatment.

The cat remained bright with normal appetite and demeanor. There had been no weight loss over this time. The cat was admitted for an EUA to assess if there was an identifiable reason for the “reactive” node.

After thorough evaluation of the ear, nose and throat region no cause was found and the client elected for excisional biopsy and histopathology.

The report read as follows: *Normal nodal architecture is extensively effaced by a somewhat biphasic population of cells in a multinodular arrangement subdivided by collagenous bands. Within the nodules there are multifocal to coalescing aggregates of larger lymphohistiocytic cells surrounded by many morphologically normal small mature lymphocytes.*

The larger cells have round to oval to occasional lobated nuclei with coarsely clumped chromatin and medium-sized to prominent nucleoli, and moderate amounts of eosinophilic cytoplasm that occasionally has a granulated appearance. Mitotic figures occur relatively frequently among this population. Compressed remnants of normal lymph node are present at one pole of the section. Immunohistochemistry confirms a heterotypic population of lymphocytes.

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PRELIMINARY DIAGNOSIS

Suspect lymphoma mandibular lymph node.

The top differential at this time, especially given the presentation of a single enlarged mandibular lymph node, would be an indolent form of lymphoma such as "T cell rich B cell lymphoma" or Feline Hodgkin's-like lymphoma (the former is possibly a variation of the latter).

Hodgkin's lymphoma in people is a unique form of lymphoid neoplasm in both its clinical presentation and morphology. It usually arises in a single lymph node but can spread to involve a chain of nodes.

In cats, the majority of reported cases have involved the submandibular nodes. Late in the disease it can involve the spleen, liver and finally the bone marrow. Histopathology is usually characterised by a population of heterogeneous lymphocytes amongst a background of mixed inflammatory cells and small numbers of malignant Reed-Sternberg (RS) cells (or variants of this lymphoid cell type), the presence of which is required for a definitive diagnosis.

The classic RS cell are described as large bi-nucleate or bilobed cells with mirror-image nuclei and large, inclusion-like "owls-eye" nucleoli. Mononuclear, multinucleate and lacunar cells are considered variants of the classical RS cell. There are three subtypes of Hodgkins-like lymphoma.

- (1) Mixed cellularity
- (2) Nodular sclerosis (bands of fibrous tissue form multiple nodules within the node), and
- (3) Lymphocyte-predominant Hodgkins disease (LPHD) where the majority of cells are lymphohistiocytic in nature with a paucity of RS cells present. Neoplastic cells comprise approximately 1-5% of cells within an affected node making fine-needle aspiration cytology of limited use (as seen in the feline case above).

The main differential diagnoses to consider in cats are:

- (i) T-cell-rich B-cell lymphoma - a variant of B-cell lymphoma where a small proportion (usually less than 10%) of neoplastic B-cells are surrounded by a reactive T-cell background. There is an absence of RS

cells on histopathology and clinically it behaves much more aggressively compared to Hodgkins disease.

- (ii) Distinctive peripheral lymph node hyperplasia (DPLH) of young predominantly male cats. Again, there is a lack of RS cells or variants and the lymphadenopathy is transient in nature and affected cats are typically less than 2 years of age.
- (iii) Generalised lymphadenopathy resembling lymphoma. As the name implies this causes a generalised lymphadenopathy rather than a single node and is usually transient in nature.

Based on published data it appears that feline Hodgkins-like lymphoma is a far less aggressive neoplasm than the more common non-Hodgkins lymphoma. Survival times vary from 7 months to greater than 4 years. Cats have been reported to survive 6 months or more with no treatment at all with longer survival times after complete resection of the affected node(s). The cat in this report is currently alive and clinically normal with no evidence of recurrence or metastasis 6 months from the date of lymph node resection.

PROPOFOL AS AN APPETITE STIMULANT

A small proportion of pets may experience a brief (3 to 5 minutes) period of sedation. Propofol is also used in people as an anti-emetic following chemotherapy.

It therefore may be a combination of its anti-nausea and appetite stimulation effects that leads to its success in increased food intake in anorectic patients. We have used this dose in cats on several occasions to good effect.

Several studies in dogs have shown that low doses of intravenous propofol has a potent appetite stimulatory effect.

Initial studies documented that a dose rate of 0.5 to 1.0mg/kg caused peak appetite stimulation at around 15 minutes post injection but more prolonged stimulation has also been observed.

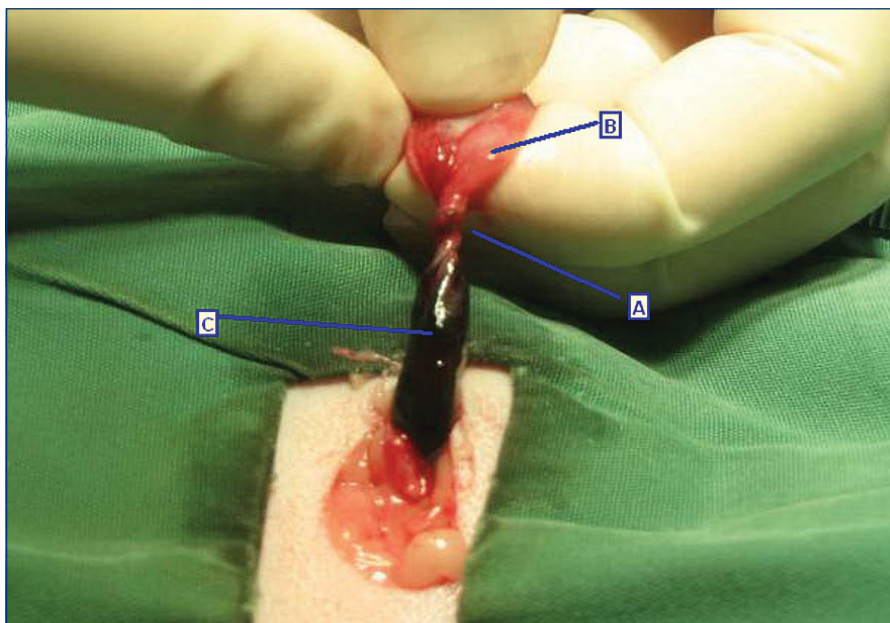
CASE REPORT - Testicular Torsion in a Cat

An 8-month-old male castrated DSH kitten was presented for evaluation of its cryptorchid state. The kitten had been purchased through an animal shelter that had the kitten castrated through their contracted veterinary practice. The kitten was noted to be cryptorchid at the time and the descended testicle removed in a routine manner. The contralateral testicle could not be localised by palpation within the SQ tissues of the paraprepuccial region or in the inguinal canal.

The owners of the kitten were advised that further exploratory surgery would be required to locate the undescended testicle (at their expense). The kitten made an uneventful recovery from the initial castration. Approximately 10-14 days later the kitten's behaviour changed. It became lethargic, had a poor appetite, was failing to gain weight and resented being picked up or handled and would cry when doing so.

On presentation the kitten was alert and responsive but less playful than expected. The kitten was in thin body condition (Score = 3/9) but otherwise there were no remarkable features on physical examination. The temperature was normal. A longitudinal incision was made in the right para-prepuccial region and blunt dissection was done to expose the inguinal ring.

The hypoplastic right testicle was located and freed from its surrounding soft tissues. The testicle



Retained testicle with torsion and haemorrhage.

was drawn caudally to expose the spermatic cord it was noted to be torsed in an anti-clockwise direction with significant oedema and haemorrhage in the proximal cord (see photo).

The cord was ligated with 4/0 PDS and the subcutaneous and cutaneous layers closed in a routine manner. The kitten was given subcutaneous meloxicam 0.3mg/kg upon recovery from anaesthesia and two further oral doses (0.1mg/kg) 48 and 96 hours following surgery.

The kitten made an uneventful recovery with an immediate improvement in its demeanor and appetite. The abnormal vocalisation resolved and there was excellent weight gain over the following months.

Little is written in the veterinary literature regarding the incidence of testicular torsion in cats. It is reported

that dogs and cats with retained testicles (whether intra-abdominal or subcutaneous paraprepuccial location) are at greater risk if torsion and cancer. The incidence of cryptorchidism varies a little from study to study (representing differing populations) and is around 1.3-3.8%. Unlike dogs where there is a predominance of right sided retention, it is roughly equal left and right sided in cats and 85-90% of these are extra-abdominal in location.

This is the first case of testicular torsion we have seen in a kitten at Halifax. It re-emphasises the need to counsel owners regarding the importance of complete castration in cryptorchid animals and should be included as a differential diagnosis in any cryptorchid animal that presents with systemic signs of illness and apparent abdominal pain.



Halifax Veterinary Centre Referral Services

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REFERRAL REPORTS

We are able to e-mail referral reports in several formats: PDF (requires Adobe Reader), Microsoft Word document or Rich Text (can be opened with word pad but will not show any digital photos that have been included in the medical notes). We can fax the referral report and we can send a printed hard copy. Please let us know which method(s) you prefer.

INTERNET RESOURCE TOOLS

The Merck Manual: <http://www.merck.com/mmpe/index.html>

Merck and The Merck Manuals

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As a service to the community, the content of The Manuals is now available in enhanced online versions as part of The Merck Manuals Online Medical Library.

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WSAVA: <http://www.wsava.org/>

About Us

The World Small Animal Veterinary Association (WSAVA) is an 'association of associations'. Its membership is made up of veterinary organisations from all over the world, which are concerned with small companion animals such as cats, dogs, rabbits, guinea pigs etc.

Currently there are 76 member and affiliate associations, representing over 70,000

individual veterinarians from around the globe.

WSAVA's primary purpose is to advance the quality and availability of small animal medicine and surgery, and this broad aim is achieved in a number of different ways.

WSAVA fosters the exchange of scientific information, both between individual veterinarians and between their veterinary organisations.