

EYELID MASS IN DOGS AND CATS

Dr Tamir Spiegel

BVMS MRCVS

D.E Ophthalmology ENVA

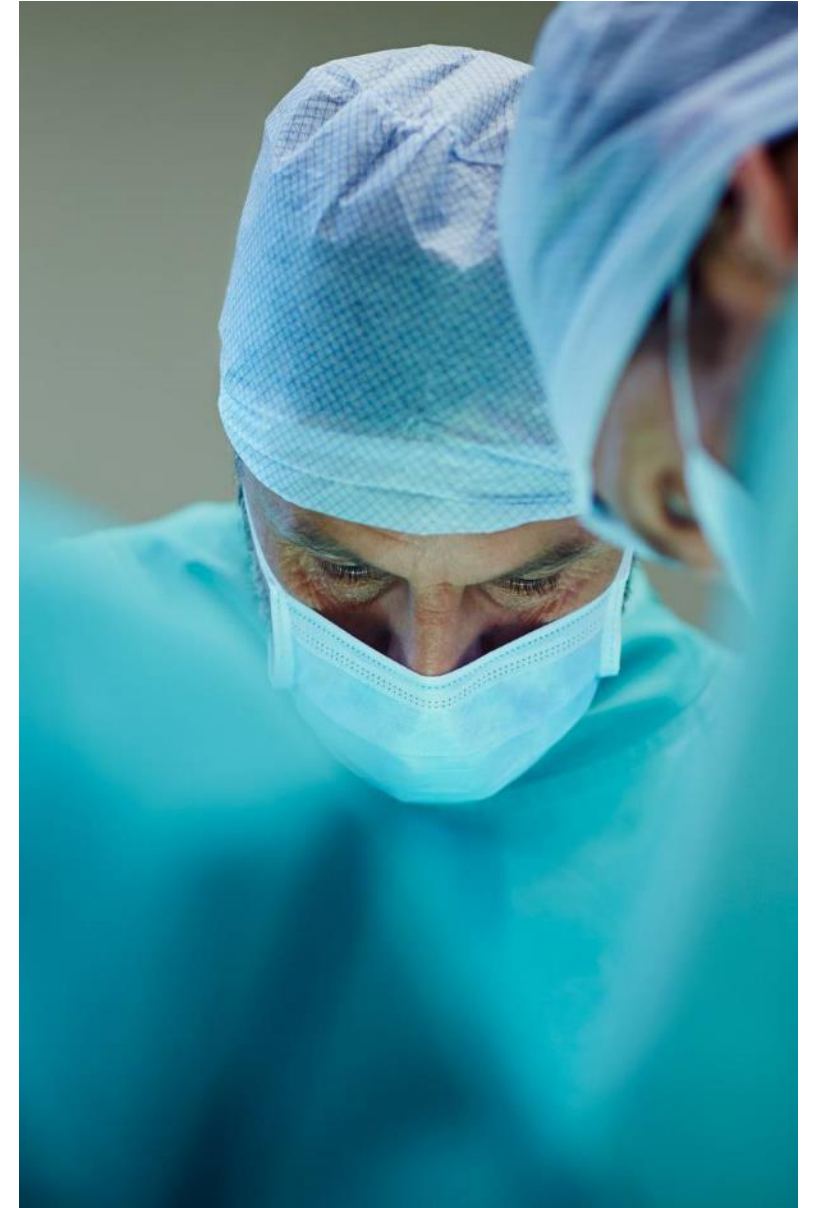
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AGENDA

- Introduction
- Diagnostic approaches
- Common types of eyelid masses
- Differential diagnosis
- Treatments modalities

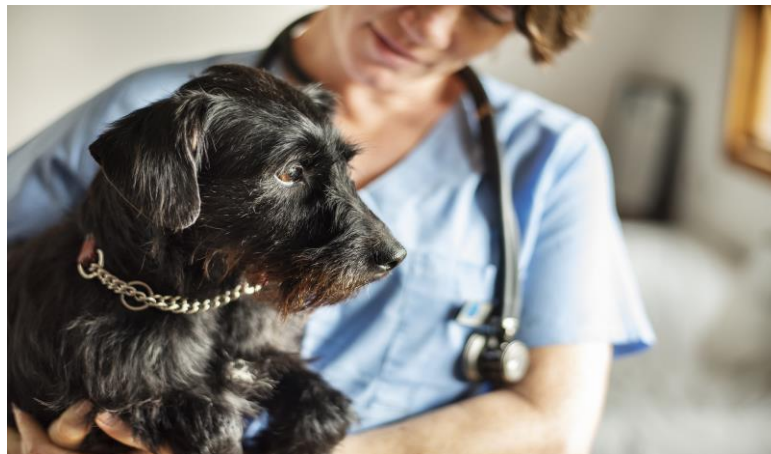


INTRODUCTION,

Eyelid tumours are relatively common in all domestic species.

The most common types of eyelid neoplasms vary by species as follows:

- **Dog: meibomian adenoma, papilloma, histiocytoma, melanoma,**
- **Cat: squamous cell carcinoma,**



DIAGNOSTIC APPROACHES

Ophthalmic examination
Physical examination

Thorough Examination

Only histologic examination of an incisional or excisional biopsy specimen
Cytologic examination of an aspirate, impression smear or scraping is definitively diagnostic

Diagnostic Techniques

All resected tumours should always be recommended to be submitted for histologic examination

Histology

FREQUENCY OF CANINE AND FELINE EYELID TUMOURS

TUMOR TYPE	TOTAL NO. (%) DOGS	TOTAL NO. (%) CATS
Meibomian (tarsal) adenoma	58 (29%)	0 (0%)
Squamous papilloma	35 (17%)	0 (0%)
Meibomian (tarsal) adenocarcinoma	31 (15%)	0 (0%)
Benign melanoma	26 (13%)	0 (0%)
Malignant melanoma	16 (8%)	0 (0%)
Histiocytoma	7 (4%)	0 (0%)
Mastocytoma	5 (3%)	11 (26%)
Basal cell carcinoma	5 (3%)	0 (0%)
Squamous cell carcinoma	5 (3%)	12 (28%)
Fibroma	4 (2%)	0 (0%)
Fibropapilloma	2 (1%)	0 (0%)
Lipoma	2 (1%)	0 (0%)
Adnexal carcinoma	1 (0.5%)	0 (0%)
Hemangiopericytoma	1 (0.5%)	0 (0%)
Lymphoma	1 (0.5%)	3 (7%)
Neurofibroma	1 (0.5%)	0 (0%)
Neurofibrosarcoma	1 (0.5%)	0 (0%)
Atypical epithelioma	1 (0.5%)	0 (0%)
Undetermined	1 (0.5%)	0 (0%)
Hemangiosarcoma	0 (0%)	6 (14%)
Adenocarcinoma (origin not defined)	0 (0%)	4 (9%)
Apocrine hidrocystoma	0 (0%)	3 (7%)
Peripheral nerve sheath tumors	0 (0%)	3 (7%)
Hemangioma	0 (0%)	2 (5%)
Total benign	148 (73%)	4 (9%)
Total malignant	54 (27%)	39 (91%)

SLATTER'S FUNDAMENTALS OF VETERINARY OPHTHALMOLOG; DAVID J. MAGGS; CHAPTER 6; EYELIDS; 110-132
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SQUAMOUS CELL CARCINOMA

- Squamous cell carcinoma may involve the eyelids of all species
 - Common in **poorly pigmented** areas of the eyelid in cats and often occurs along with lesions involving the **nasal planum and pinnae**
 - Associated with exposure to **ultraviolet light**
 - They are more typically characterized by **local invasiveness**. However **occasionally metastasize to regional lymph nodes** and rarely to more distant sites
 - Local inflammation with blepharitis and conjunctivitis that can make gross identification of tumour margins challenging
- **Clinical signs**
 - **Chronic purulent ocular discharge**, which may be temporarily and partially responsive to antibiotics
 - **Periocular excoriation** and ulceration
 - Chronic **conjunctivitis**
 - Encrusted or hemorrhagic lesions of the eyelids are common
 - **Differential diagnosis**
 - Chronic blepharitis

SQUAMOUS CELL CARCINOMA

■ **Diagnosis**

- Cytologic assessment of scrapings or biopsy

■ **Prognosis**

- Median survival in one study was 7 months
- Ocular squamous cell carcinoma is uncommon in dogs

■ **Treatment**

- Squamous cell carcinomas should undergo **complete surgical resection** with wide peritumoral margins
- For larger lesions, this requires a **blepharoplasty procedure** to ensure retention of proper eyelid function
- If excision is not likely to be complete **debulking followed by cryotherapy** or **beta radiation therapy** may be necessary
- For advanced recurrent or infiltrative lesions, **enucleation or exenteration** with **reconstructive skin grafts** may be necessary

SQUAMOUS CELL CARCINOMA,

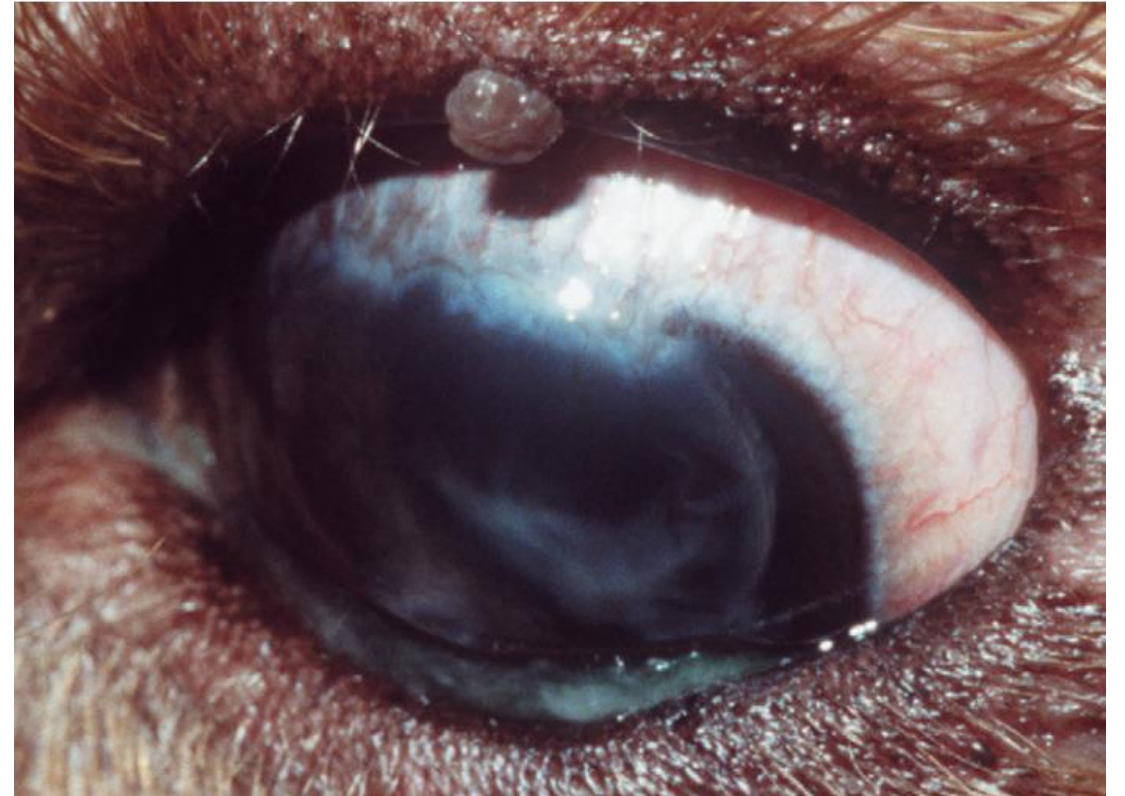


Erosive lower eyelid squamous cell carcinoma in a cat.

MEIBOMIAN ADENOMA / ADENOCARCINOMA₂

- Most **frequent** lid neoplasm in dogs
- Arises from the **meibomian glands**
- Can extend into the lid or be pedunculated
- Metastasis very rare

Upper eyelid meibomian adenoma in a dog. Note that a section of the tumour protrudes from a meibomian gland orifice on the eyelid margin!



PAPILLOMA₂

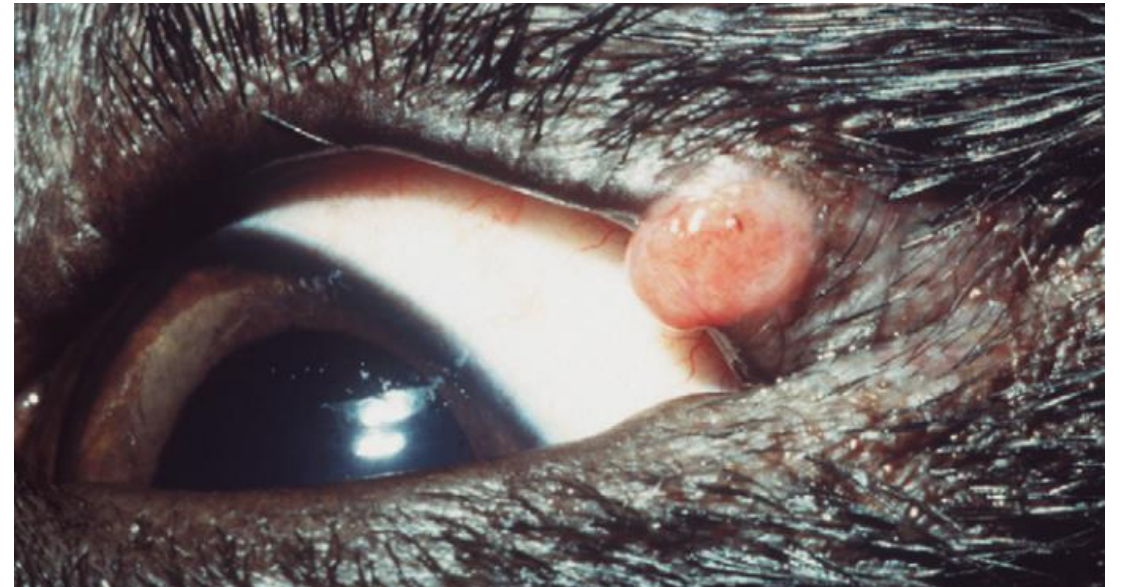
- Warty, elevated, cauliflower-like
- Superficial
- Rapidly growing
- Younger dogs
- Frequently viral
- Oral papillomata can also be present

Lower eyelid papilloma in a dog. Note the lack of marginal involvement in this case compared with the meibomian adenoma!



HISTIOCYTOMA₂

- Rapidly growing
- Smooth, pink and broad-based
- Mainly younger dogs
- May regress spontaneously
- Caution in **Bernese Mountain dog** re-systemic **histiocytosis**



Solitary histiocytoma of the upper eyelid of a young dog I

MELANOMA₃

- Common
- Two types
- **Type 1:** arises from the **eyelid skin**
- Typically occurs as a **single** protruding smooth pigmented mass
- Often **amenable** to surgical excision
- Associated with a **low rate of recurrence**₆
- **Type 2:** arises from the **pigmented eyelid margin**, is flat, broad and tends to **expand** in all directions
- More **locally invasive** and may require removal of large portions of the eyelid margin
- May require alternative therapy such as **cryotherapy**

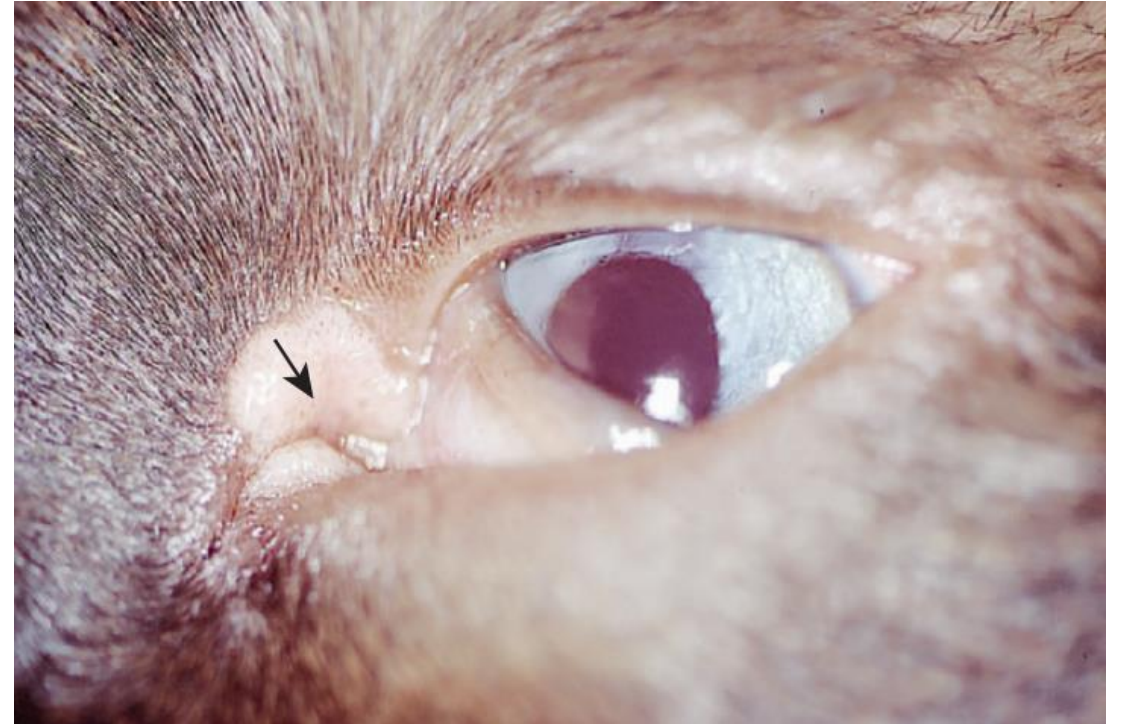
MELANOMA



Eyelid melanoma⁴

MAST CELL TUMOUR₂

- Very **variable** presentation
- Intermittent **pruritus** common
- Variation in **size or swelling** frequent
- Consider referral



Mast cell tumour of the medial canthus of a cat⁴

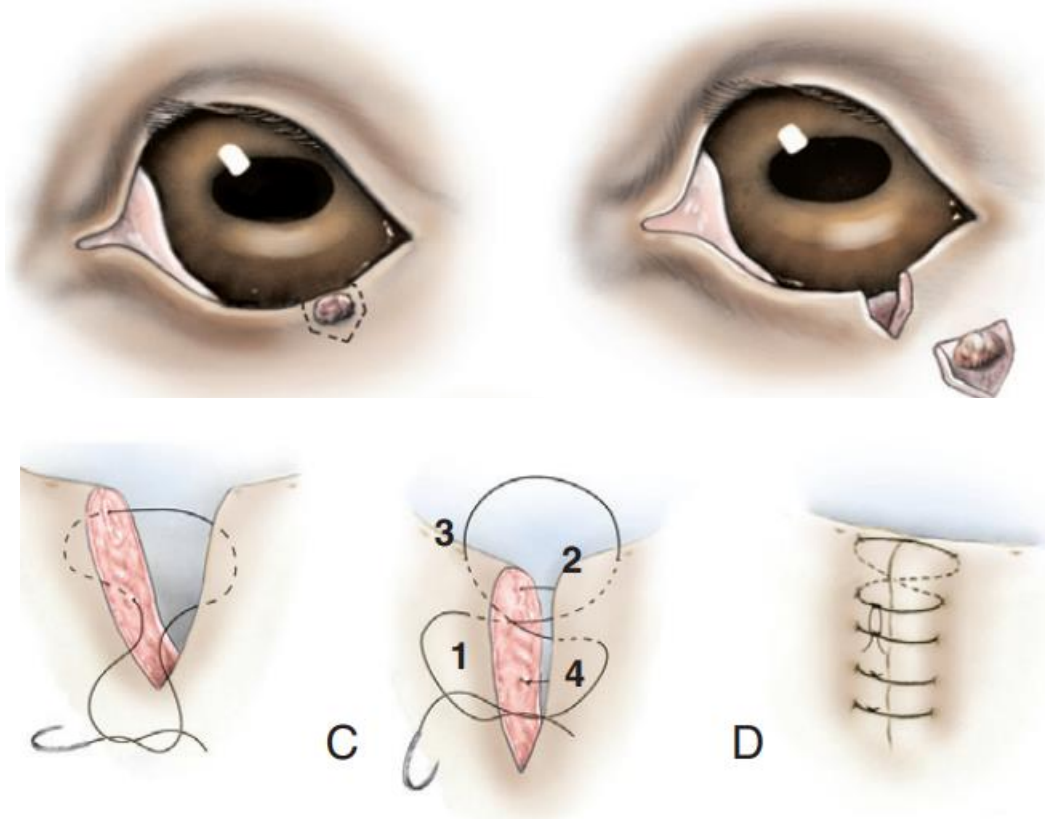
DIFFERENTIAL DIAGNOSIS₂

- Neoplastic lid mass
- Chalazion
- Dermoid
- Granuloma
- Meibomianitis

TREATMENT₂

- Surgical excision is the treatment of choice
- Excision will involve **full-thickness lid resection**
- Simply done in lesion up to **1/3 of eyelid length**
- If the lesion approaches the nasolacrimal puncta, it should be **cannulated with coloured nylon** so that its location is highlighted during surgery

SURGERY_{1,5}



- The lid mass is removed by tenotomy scissors, creating a **four-sided surgical defect**
- A buried 3/0 to 5/0 polyglactin 910 (vicryl). Horizontal mattress suture is placed without penetrating the skin, the margin itself or the conjunctiva. The suture is placed so that the appositional forces are at the margin, but the knot is distal from it so as to avoid corneal contact.
- **C**, The skin is closed using a figure-of-eight suture of 4/0- 6/0 polyglactin 910 (vicryl). Numbers identify order of needle passage through the tissue so that appositional forces are again at the margin but the knot is distal from it. Both suture ends are left long at this stage. The buried horizontal mattress placed in
- **D**, The rest of the skin incision is closed with a series of closely spaced simple interrupted sutures.

SURGERY^{1,2}

- Total excision of **larger tumours** usually is not possible without some sort of **blepharoplasty procedure**
- Such as lateral canthotomy, sliding or advancement flaps
- Referral may be required
- Some tumours are sensitive to **cryosurgery**

PROGNOSIS ²

- For **benign tumours** is generally good
- **Local regrowth** of mass
- If there is no eyelid margin-left, **blepharoplasty procedure or enucleation** may be required
- **Complication:**
- Some degree of **lagophthalmos** and exposure keratitis may develop
- **Trichiasis** with hairs rubbing causing corneal irritation and possible ulceration

Reference

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- 6. Today's Veterinary Practice; Diagnosis and Treatment of Eyelid Tumors; December 14, 2021; Issue: January/February 2022; Braidee C. Foote DVM, DACVO

THANK YOU

Questions

