

Sterile dacryoadenitis is a seldom diagnosed pathology of lacrimal gland in cats. Etiology is currently unknown. Surgical treatment was curative.

Chronic sterile dacryoadenitis of the orbital lacrimal gland in a Maine Coon cat

Clinical presentation



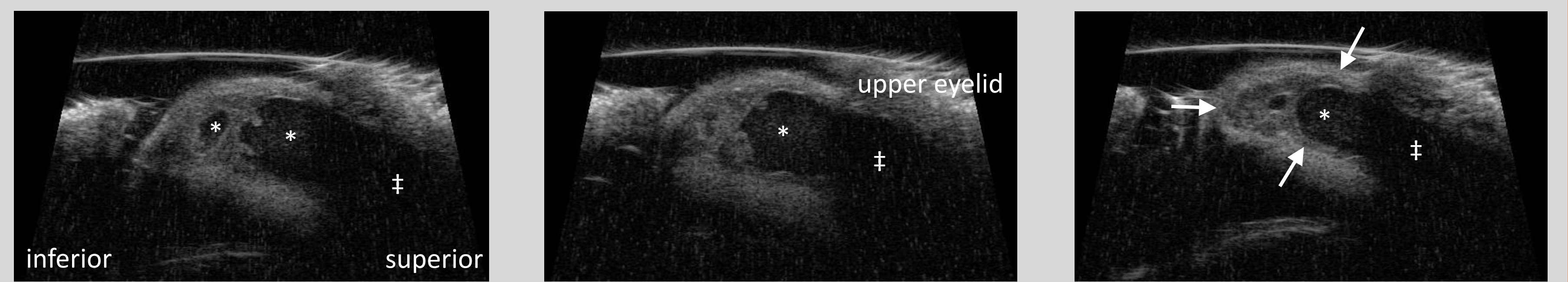
4 year-old female spayed household Maine Coon cat presented with a four-week history of a non-painful well-vascularized and partly stiff episcleral mass of the left eye. No trauma has been reported.



Ophthalmic examination and diagnostic imaging

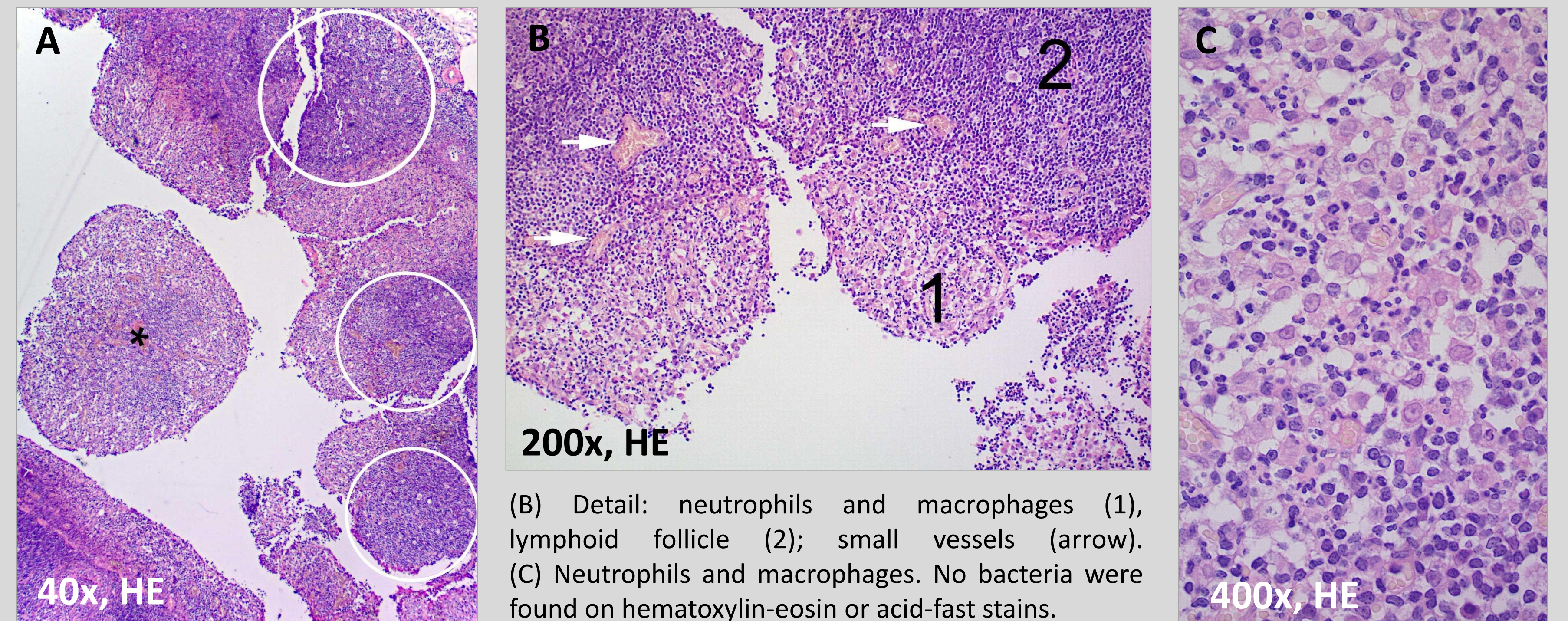
Ophthalmic examination revealed an episcleral mass extending subconjunctivally immediately next to the superior eyelid margin into the temporal canthus. Caudal extension could not be assessed clinically. Remainder of the examination was unremarkable.

Ultrasound biomicroscopy (UBM) with 50 MHz transducer showed an episcleral (arrow) multilocular cystic structure with hypoechoic cavities (*) and hyperechoic stippling. Caudal extension could not be assessed on ultrasound (‡).

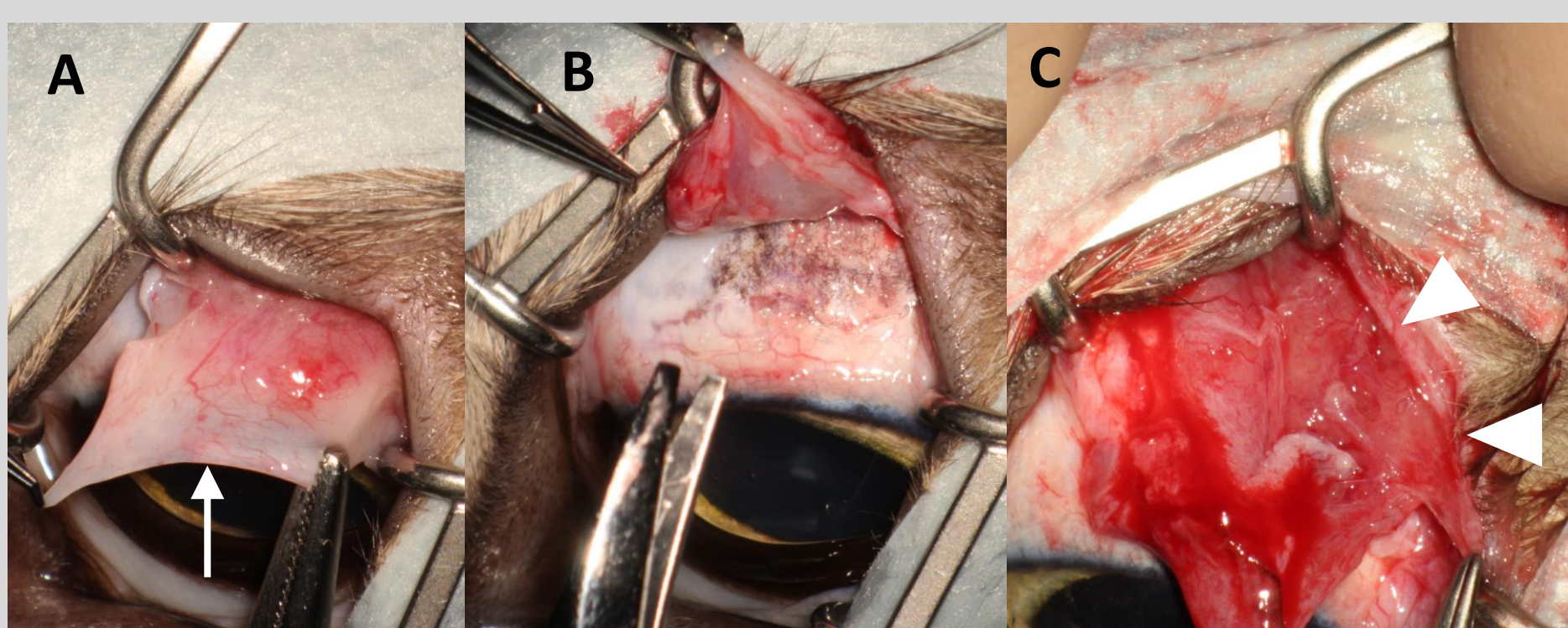


Histopathology and bacterial culture

Bacterial culture revealed no aerobic or anaerobic growth. (A) Histopathologic findings showed marked chronic suppurative and abscessing dacryoadenitis with follicle formation (circle); neutrophils and macrophages in the center (*).



Surgery



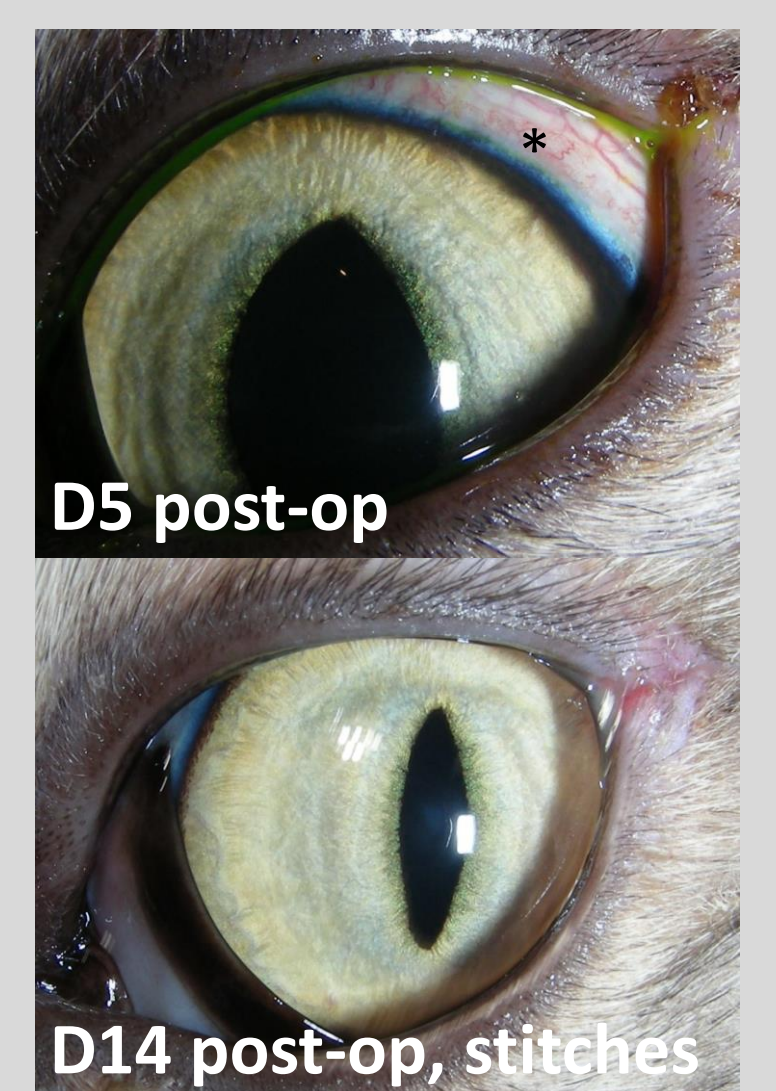
During the surgery, the fragile mass ruptured and bacterial fluid sampling was performed. The mass extended further into the orbit and excision was performed directly posterior to cystic area. Conjunctiva was not sutured. (A) Excision of leading perilimbal edge (arrow). (B) Excision of the mass from episclera. (C) Mass was palpebral directly adjacent to eyelid edge (arrowhead). (D) Removed multilobulated mass with cavity (*).

Discussion

Feline orbital lacrimal gland pathologies reports are scarce in the literature. Main differential diagnosis for dacryoadenitis is lacrimal gland dacryops.^{1,2} This has similar clinical (A¹, B²) as well as ultrasound appearance (C²) and presented in one year old cats. Histopathologic diagnosis of dacryops requires that the cavitated structures are lined with cuboidal epithelium (orange arrows in D², E¹). In our case, cat was older and dacryops was considered but could not be proven. In 2014 ECVO London conference, a case report of pyogranulomatous dacryoadenitis in three cats was presented. Two of the cats showed orbital lacrimal gland dacryoadenitis and one had third eyelid gland dacryoadenitis. The authors suspected infectious etiology, but it could not be proven.

Outcome

Conjunctiva (*) and canthotomy wound healed uneventfully. Follow-up of 78 days showed no mass regrowth.



Literature/sources: [1] Bommel EAV. Conjunctival dacryops in a domestic shorthair cat. Can Vet J Rev veterinaire Can. 2021;62(6):637-640.

[2] Maggio F. Bilateral temporal dacryops in a cat. Vet Ophthalmol. 2020;23(6):1025-1030. doi:10.1111/vop.12831

[3] Chiwitt C, Linn-Pearl R, Rhodes M, Manning S, Scurrill EJ, Featherstone HJ: Pyogranulomatous dacryoadenitis in three cats (2014),

Abstracts: Annual Scientific Meeting of the ECVO, London, UK May 15–18, 2014. Vet Ophthalmol. 2014;17(6):E16-E30. doi:10.1111/vop.12191

