

## CT FEATURES OF A LACRIMAL GLAND TUMOR IN A DOG

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**Background:** In the dog, neoplasms of the lacrimal gland are rare. Lacrimal cysts were also reported. Computed tomography (CT) scan findings of these lacrimal gland abnormalities have not been described in dogs.

**Purpose:** The present report describes clinical and CT features of a lacrimal gland tumor in a dog.

**Methods:** A 3,5 year old female intact Leonberger with a good general health status was presented with a progressive swelling at the level of the supero-temporal area of the left upper eyelid and of the bulbar conjunctiva since 3 weeks. Ocular examination revealed a slight enophthalmia and a ventronasal strabismus, the presence of a firm mass in the upper eyelid which was anteriorly well circumscribed and extending posteriorly between the globe and the orbital ligament.

**Findings:** A CT scan pre- and post- contrast studies of the head were performed. A 3 cm hypoattenuating (+/- 10 HU) ovoid mass was observed dorsolateral to the indented left globe. This mass was well circumscribed by an unevenly thick irregular soft tissue- attenuating wall (50HU), which was strongly contrast-enhanced (150HU) and measured about 2 to 10mm in thickness. The left globe was displaced caudoventromedially. No adjacent bone lesion, or foreign body was observed. No normal left lacrimal gland was observed. These findings were suggestive of an abscess or an orbital tumor with a necrotic/cystic center; a lacrimal cyst was considered less likely because of the unevenness and the thickness of the wall. Complete surgical ablation was done by a modified lateral orbitotomy. Histopathology revealed a mixed benign tumor of the lacrimal gland and a lymphocytic necrotic adenitis. Six months postoperatively no recurrence is noted and the tear production is 15mm/min.

**Conclusion:** The lacrimal gland is located dorsolateral to the globe and produces tears. In human medicine, a wide range of lacrimal gland pathologies were described and assessed by computed imaging techniques. Pleomorphic adenomas (mixed benign tumor) could reveal irregular bone erosion and could undergo malignant transformation. In dogs, lacrimal cysts were described as thin walled structures.<sup>4</sup> Only few articles reported lacrimal gland tumor. To the authors' knowledge, CT findings of a lacrimal gland tumor have not been described previously. In conclusion, lacrimal gland tumor should be included in the differential diagnosis of a firm ovoid cystic/necrotic mass dorsolateral to the orbit.