Indian J. Vet. Surg. 46(2): 163-164 December 2025

ijvs

Surgical management of lymphoma of third eyelid in a German Shepherd dog

Babita Das[1†], Randhir Singh[1], Kotari Beulah Ramyavani[2], Amita Dubey[3], Apra Shahi[4], Shobha Jawre[5] and Apoorva Mishra[6]

Nanaji Deshmukh Veterinary Science University, Jabalpur- 482 001 (Madhya Pradesh)

[1]Associate Professor, [2]MVSc Scholar, [4]Professor and Head, [5]Professor, [6]Assistant Professor, Department of Veterinary Surgery and Radiology; [3]Associate Professor, Department of Veterinary Pathology, College of Veterinary Science and Animal Husbandry, Jabalpur.

DOI: 10.5958/0973-9726.2025.00046.2 *Received: April, 2024*

An 8-yr-old female German shepherd was presented with a growth at the medial canthus of the left eye and epiphora persisting for the past 15 days. A detailed ophthalmic examination revealed a protruding, red, fragile mass at the bulbar surface of the left third eyelid (Fig. 1). Clinical examination revealed palpebral and bulbar conjunctivitis of the third eyelid and unilateral conjunctivitis surrounding the mass, with intact vision. No other abnormalities were observed in the left eye. The dog was prepared for surgical excision of the growth following pre-operative administration of local and systemic antibiotics and anti-inflammatory drugs.

The complete blood count and serum chemistry profile showed values within normal ranges. General anaesthesia was induced by intramuscular administration of xylazine HCl (1 mg/kg body wt.) and ketamine HCl (5 mg/kg body wt.) after atropine sulphate (0.01 mg/kg body wt.) premedication. Anaesthesia was maintained through intravenous administration of combination of xylazine and ketamine in 1:2 ratio, supplemented with 100% oxygen delivered via an endotracheal tube.

Purulent discharge was removed using a gauze soaked in sterile saline after clipping the cilia of the upper eyelid. The peri-ocular area was meticulously scrubbed with diluted povidone iodine solution, and the corneal and conjunctival surfaces were irrigated with saline. Finally, the peri-ocular skin was painted with povidone iodine. A sterile eye speculum was used for enhanced visualization. Using an operating microscope, the third eyelid was retracted with a stay suture. A 3×2 cm red, smooth, fragile mass protruding from the bulbar surface of the third eyelid was observed. An artery forceps was applied to the base of the mass to arrest bleeding due to the fragile nature of the tissue. Local haemo-coagulation solution and bipolar ophthalmic electro-cautery were employed for haemostasis. The mass was excised while carefully avoiding the 'T' cartilage of the third eyelid, and the

Fig. 1: Protruding mass of third eye lid.

Fig. 2: Post-surgical appearance of the third eye lid.

†Corresponding author; E-mail: drbabitavermadas@gmail.com

Fig. 3: Normal appearance of the eye after three months.

bulbar surface was sutured using polyglactin 910 (Vicryl) No. 6-0 in a continuous pattern. After thorough irrigation with normal saline, chloramphenicol eye caps and analgesic drops were administered (Fig. 2). The third eyelid was repositioned, and an eye bandage was applied. Postoperatively, systemic administration of amoxicillin and meloxicam was continued.

The excised mass was preserved in 10% formalin and processed routinely for histopathological examination. Sections were stained with Haematoxylin and Eosin (H&E). Cytological impression smears revealed monomorphic population of large, immature, atypical lymphoblasts with multiple pleomorphic nucleoli and deep blue cytoplasm, with few mitotic figures (Fig. 3). Histopathological examination showed round cells with scant cytoplasm, anisocytosis, anisokaryosis, numerous bizarre cells, and a high mitotic index. At 3-month postoperative re-examination, no recurrence of the mass was observed at the bulbar surface of the left third eyelid (Fig. 3). Systemic involvement was not detected.

During the 12-month period from Nov. 2021 to Nov. 2022, a total of 10,144 cases were registered at the Veterinary Clinical Complex. Of these, 8,882 (87.56%) were canine cases, with 192 (2.16%) presenting with various eye affections. Only one case of third eyelid lymphoma was recorded, indicating a rare occurrence (0.01%). Based on clinical and histopathological findings, this case was diagnosed as third eyelid lymphoma. Although multi-centric orbital lymphoma has been documented (Chandrasekar *et al*., 2019), third eyelid lymphoma remains an extremely rare condition (Morrison, 2002) with an incidence of just 0.01% among reported eye affections.

The third eyelid, positioned near the medial canthus, lies between the ocular surface and the lower eyelid. Its bulbar and palpebral surfaces are lined with conjunctival epithelium, while lymphoid follicles (mucosa-associated lymphoid tissue, MALT) populate the bulbar side. This structure includes a T-shaped cartilage and an accessory lacrimal gland, commonly known as the third eyelid gland. Functionally, it supports local immune defence, shields the ocular surface, aids lubrication by producing mucin, helps distribute the tear film, and contributes to its aqueous component.

While MALT lymphoma of the ocular adnexa is common in humans, primary conjunctival lymphoma is rare in dogs (Hong *et al*., 2011), with few documented cases. This case offers valuable clinical and histopathological insights into third eyelid conjunctival lymphoma in dogs.

References

Chandrasekar, M., Sumathi, D., Thilagar, M.B., Tirumurugaan, K.G., Vairamuthu, S. and Jayathangaraj, M.G. 2019. Multi centric lymphoma in a Basset hound. Indian Vet. J. **96**: 64-65.

De C Pereira, V., Henker, L.C., Menegatt, J.C., Vielmo, A., Bertolini, M., Legramanti, W.M., Panziera, W., Bandinelli, M.B. and Pavarini, S.P. 2024. Primary third eyelid lymphoma with aggressive local behaviour in a dog. Top. Companion. Anim. Med. **60**:100864.

Morrison, W.B. 2002. Cancer in Dogs and Cats: Medical and Surgical Management, 2nd edn. Teton New Media., Wyoming. pp 706-710.

Hong, I.H., Bae, S.H., Lee, S.G., Park, J.K., Ji, A.R., Ki, M.R., Han, S.Y., Lee, E.M., Kim, A.Y., You, S.Y. and Kim, T.H. 2011. Mucosa associated lymphoid tissue lymphoma of the third eyelid conjunctiva in a dog. Vet. Ophthalmol. **14:** 61-65.