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Surgical management of hard palate tumors in two dogs: A case report

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Abstract

The present study reports two cases of tumors on the hard palate in a 5-year-old male Doberman and a 6-year-old female Golden Retriever. The dogs were presented to the Department of Veterinary Surgery and Radiology, Veterinary College, Hebbal, Bengaluru, with a history of epistaxis and a mass over the hard palate in the Doberman, and recurrence of masses involving both the hard and soft palate in the Golden Retriever, accompanied by difficulty in breathing and eating. Physical examination revealed a pinkish, firm premaxillary mass in the Doberman and a caudally located palatal mass extending to the soft palate in the Golden Retriever. Surgical excision of the tumors was performed under general anaesthesia. The excised samples were fixed in 10% neutral buffered formalin and submitted for histopathology. Histopathological examination revealed a round cell tumor of haematolymphoid and histiocytic origin in the Doberman and fibrosarcoma in the Golden Retriever.

Keywords: Hard palate tumor, oral tumor, fibrosarcoma, round cell tumor

Introduction

In dogs and cats, the oral cavity represents the fourth most frequent site for neoplastic growths, with oral tumors accounting for approximately 5% of malignant tumors in dogs and 7% in cats. Oral tumors are most often diagnosed in middle-aged and older dogs and cats, typically after 7–10 years of age, with predisposition noted in breeds such as Boxers, German Shepherds, Golden Retrievers, Cocker Spaniels, Poodles, and Weimaraners. Exceptions include oral papillomatosis, which occurs in dogs under one year, and fibrosarcoma, which often presents earlier at around five years. Melanomas are more common in males, usually appearing at 9–11 years, particularly in breeds with pigmented mucosa such as Cocker Spaniels and German Shepherds. Squamous cell carcinoma predominates in cats over 10 years and in small-breed dogs aged 8–10 years (Fossum, 2002) [2]. Round cell tumors represent a significant and diverse group of canine neoplasms, comprising five major types such as mast cell tumors (MCT), lymphoma, plasma cell tumors, histiocytoma, and transmissible venereal tumors (TVT) (Meuten, 2017) [6]. These tumors are relatively common, with mast cell tumors by themselves representing nearly 25% of all cutaneous neoplasms in dogs (Misdorp, 2004) [7]. Fibrosarcomas are seen mainly in large breeds like Dobermans and Golden Retrievers, with males affected more frequently and an earlier onset than in smaller dogs. Oral osteosarcomas most often involve the mandible and occur more commonly in females, while fibromatous epulides are frequently reported in Boxers. Animals with oral tumors typically present with signs such as a visible mass, bleeding, halitosis, difficulty eating, or excessive salivation, often accompanied by weight loss, loose teeth, facial deformity, or nasal discharge (Fossum, 2002) [2].

Materials and Methods

Case 1: A 5-year-old male Doberman dog was presented to Department of Veterinary Surgery and Radiology, Veterinary College, Hebbal, Bengaluru with the history of epistaxis and observable mass growth on the hard palate for the last 15 days. On physical and clinical examination, pinkish firm mass growth was noticed on the premaxillary region of the hard =

palate and on palpation, bilateral enlargement of submandibular lymphnodes were noticed. Complete blood count and serum biochemistry revealed normal hemato-biochemical parameters. The surgical excision of tumor was done under general anaesthesia.

Case 2: A 6-year-old female Golden retriever dog was presented to Department of Veterinary Surgery and Radiology, Veterinary College, Hebbal, Bengaluru with the history of recurrence mass on both the hard and soft palate with a previous history of surgical excision one month earlier and difficulty in breathing and eating food. On physical examination, a mass in caudal aspect of the hard palate extending to the soft palate was noticed. Complete blood count and serum biochemistry revealed normal hemato-biochemical parameters. The surgical excision of tumor was done under general anaesthesia.

The animals (both case 1 and 2) were premedicated with Inj. Atropine sulphate at 0.04 mg/kg body weight along with Inj. Xylazine at 1 mg/kg body weight administered intramuscularly. Pre-operatively, antibiotic Inj. Ceftriaxone at 25 mg/kg body weight and analgesic Inj. Meloxicam at 0.2 mg/kg body weight were administered intravenously. Anaesthesia induction and maintenance were achieved using Inj. Thiopentone sodium (2.5%) administered intravenously to effect.

The animals were positioned in dorsal recumbency, and the site was prepared aseptically. An elliptical incision was made around the tumour, and the mass was excised using B.P. Blade No. 22. The bleeding was arrested using electrocautery. The incision site was electrocauterised and left unsutured. The excised tissue samples were collected in 10% Neutral Buffered Formalin solution (NBF) and submitted for histopathological examination.

Postoperatively, the animals were given oral antibiotic Cephalexin at 25 mg/kg body weight BID and oral analgesic Carprofen at 4 mg/kg body weight SID for 5 days. Chemotherapy was advised in both cases.



Case 1: Pinkish firm mass growth was noticed on the premaxillary region of Hard palate



Case 1: Premaxillary region of Hard palate after tumor excision



Case 2: A mass in caudal aspect of the hard palate extending to soft palate was noticed

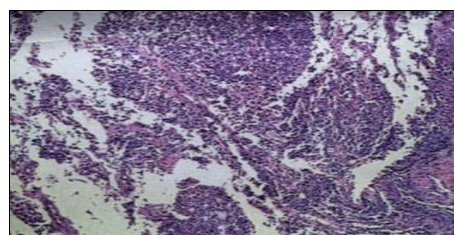


Case 2: Hard and Soft Palate after tumour excision

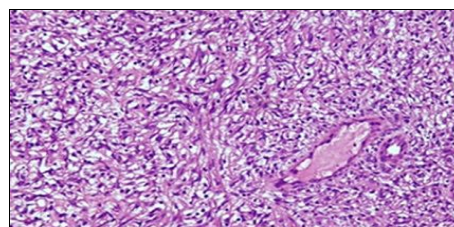
Results and Discussion

Histopathology of Case 1 revealed the presence of sheets and nests of round cells separated by scant fibrous stroma. The cells have pleomorphic hyperchromatic nucleus with scant eosinophilic cytoplasm. Surrounding stroma shows desmoplasia. All these features are suggestive of Round cell tumour haematolymphoid and histiocytic origin.

Histopathology of Case 2 revealed the presence of neoplastic spindle shaped to polygonal to ovoid lining cells, occasionally forming recognizable vascular clefts. These cells arranged in interwoven or herringbone pattern. The nucleus of these cells showed vesicular pattern with centrally placed distinct nucleoli. All these features are suggestive of Fibrosarcoma.



Histopathology of Case 1 suggestive of Round cell tumour



Histopathology of Case 2 suggestive of Fibrosarcoma

Postoperatively, no recurrence of tumor was noted in Case 1 (Doberman). However, in Case 2, (Golden retriever) because of the recurrence, the owner had elected for euthanasia of an animal.

In dogs, the most frequently diagnosed malignant oral tumors include malignant melanoma, squamous cell carcinoma

(SCC), and fibrosarcoma, while in cats, SCC predominates as the leading malignant oral tumor. Benign oral tumors are uncommon in cats, whereas in dogs, epulides represent the most common benign oral neoplasms (Fossum, 2002) [2].

Round cell tumors constitute a significant and diverse group of neoplasms in dogs, encompassing five entities such as mast cell tumors (MCT), lymphoma, plasma cell tumors, histiocytoma, and transmissible venereal tumors (TVT) (Meuten, 2017) [6]. Some researchers include melanoma, basal cell carcinoma, and histiocytic sarcoma also in round cell tumors (Fisher, 2014; Meuten, 2017) [1,6]. The majority of round cell tumors appear in the skin or subcutaneously, even though they can be noticed in many other locations. On cytological evaluation, round cell tumors exhibit cells that are typically round to oval, differing from those of epithelial or mesenchymal tumors. Diagnosis can be efficiently achieved through cytological analysis of samples obtained via fine-needle aspiration, punch biopsy, or excision biopsy (Mathur *et al.*, 2018) [5].

Fibrosarcomas are third most common malignant canine oral tumors after melanoma and squamous cell carcinoma. These tumors are most commonly found in maxilla, mandible or gingiva of large dogs. Gingival tumors can invade the bone and spread to the palate. Oral fibrosarcoma is the third most common malignant tumor of the oral cavity of dogs, representing 8-25% of all canine oral neoplasms (Liptak *et al.*, 2013) [4]. Oral fibrosarcomas are locally, invasive malignant mesenchymal tumors of the oral cavity of dogs, originating from the connective tissue cells. They usually appear as solitary, nodular, non-pigmented lesions that are less likely to ulcerate, when compared to other oral neoplasms.

Various modalities employed for treatment of oral neoplasms are surgical excision, chemotherapy, radiotherapy, immunotherapy, hyperthermia, cryosurgery and photodynamic therapy or in combination (Head *et al.*, 2002) [3]. The efficacy of chemotherapy is unknown, and curative treatment appears to be possible only with early wide excision, although there are few reports of such treatment.

Conclusion

Routine oral examinations in dogs are often underestimated, leading to delayed diagnosis of oral tumors and poorer prognosis. Histopathology is essential for classifying tumors as benign or malignant. Early surgical excision remains crucial in preventing tumor spread and improving clinical outcomes.

Conflict of Interest

Not available

Financial Support

Not available

References

1. Fisher DJ. Cutaneous and subcutaneous lesions. In: Cowell RL, Valenciano AC, editors. Cowell and Tyler's diagnostic cytology and hematology of the dog and cat. St. Louis: Elsevier; 2014. p. 80-109.
2. Fossum TW, Hedlund CS, Hulse DA. Surgery of the oral cavity and oropharynx. In: Fossum TW, editor. Small animal surgery. 2nd ed. St. Louis: Mosby Elsevier; 2002. p. 162-166.
3. Head KW, Else RW, Dubielzig RR. Tumors of the alimentary tract. In: Meuten DJ, editor. Tumors in

domestic animals. 4th ed. Iowa: Iowa State Press; 2002. p. 401-481.

4. Liptak JM, Withrow SJ. Cancer of the gastrointestinal tract. In: Withrow SJ, Vail DM, Page RL, editors. Small animal clinical oncology. 5th ed. St. Louis (MO): Elsevier; 2013. p. 318-398.
5. Mathur KY, Rao S, Chandrashekaraiah GB, Munivenkatappa BS. Cytological and histopathological studies of canine round cell tumors. Int J Livest Res. 2018;8(6):88-95.
6. Meuten DJ. Tumors in domestic animals. 5th ed. Iowa (USA): John Wiley & Sons; 2017. p. 142-202.
7. Misdorp W. Mast cell and canine mast cell tumors: a review. Vet Q. 2004;26(4):156-169.

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