

MANDIBULAR SALIVARY GLAND ADENOMA AND ITS SURGICAL MANAGEMENT IN DOG

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A ten years old male Dobermann dog was presented to TVCC, Mannuthy, with a pedunculated and hanging mass in the right caudal aspect of the cheek region. Animal did not exhibit any signs of discomfort and pain. Metastatic changes were not found in the lateral chest radiograph of the animal. The mass was resected by using surgical diathermy. The histological evaluation confirmed that the condition was mandibular salivary gland adenoma of benign nature.

Keywords: Benign tumour, Dog, Mandibular salivary gland adenoma.

The major salivary glands in dogs are parotid, mandibular, sublingual and zygomatic. Diseases of salivary glands in dogs are uncommon with an overall incidence rate is 0.17% (The major surgical affections of the salivary glands in dogs are mucocele, sialadenosis, fistula, sialadenitis, sialolithiasis and neoplasia (Johnson, 2008). Parotid and mandibular salivary glands are most commonly affected and among this parotid gland is most affected in the case of dogs (Hammer *et al.*, 2001). Salivary gland tumours are classified into benign and malignant. Most of them are malignant and epithelial in origin (Head and Else, 2002).

Case history and Observations

A ten year old male Dobermann dog weighing 37 kg was presented with a pendulous swelling at the angle of the mandible in right side (Figure-1a and 1b). It was reported that the swelling was gradually increased in size over two years. On examination, the swelling was hard in consistency and ulcerated on one side. Chest radiography (Figure-2) was not shown any signs of metastasis. Physiological, haematological and serum biochemical parameters were within the normal range. Hence it was decided to manage the condition through surgical excision.

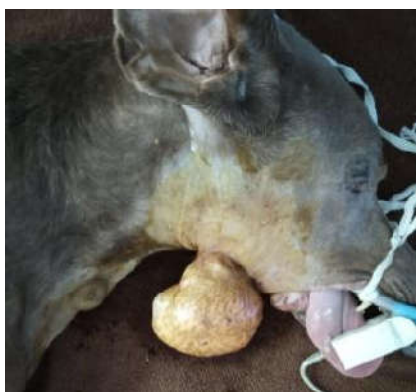


Figure 1 a: Gross lesion (pedunculated mass)



Figure 1 b: Size determination using digital vernier calipers



Figure 2: Thoracic radiography revealed no lesions

Surgical Treatment

Surgical site was prepared or aseptic surgery. Animal was premedicated with inj. xylazine at a dose rate of 0.5 mg /kg and inj. tramadol at a dose rate of 3 mg/kg body weight intramuscularly. Induction of anaesthesia was done with one third of inj. ketamine at a dose rate of 5 mg/kg and inj. diazepam at a dose rate of 0.5 mg/kg in a single syringe through intravenous route. Anaesthesia was maintained with isoflurane 1-2% in oxygen. Positioned the dog in left lateral recumbency and using surgical diathermy made a wide incision around the base of the mass. Separated the adhering structures and excised the mass from its base (Remove mass in Figure-3). Wide area of the tissue was removed to prevent the re-occurrence of the tumour. Arrested all the bleeding points and apposed the incision site using polyglactin 910 in simple continuous suture pattern. Skin was closed using nylon in simple interrupted suture pattern. Post-operatively, the animal was treated with antibiotic Tab. cephalixin at a dose rate of 15mg/kg body weight twice daily for five days, Tab. meloxicam at a dose rate of 0.2 mg/kg body weight once daily for three days and multivitamin drops. Skin sutures were removed on 10th post-operative day and animal had an uneventful recovery.

Results and Discussion

Animal had an uneventful recovery. Re-occurrence was not occurred even after



Figure 3: Removed mass

two years. The report of histopathological examination of the tumour cut section revealed that the cells arranged in groups of varying sizes and they are cuboidal to oval, uniform sized cells having nuclei. Thin bands of hyalinised fibrocollagenous tissue seen in between. No evidence of malignancy was revealed in histopathology.

Salivary gland diseases are uncommon among dogs and cats. Mandibular salivary gland is one of the major salivary gland in dog and anatomically it located caudal to the mandibular ramus and ventral to the parotid gland as also reported by Gaber *et al.*, 2020. The confirmation of the neoplasm was performed in the present study through the histopathology. The ultrasonography and computed tomography are also reliable tool for the clinical identification of salivary neoplasm as also mentioned by Rastogi *et al.*, 2012.

Conclusions

This paper describes about the successful surgical management of mandibular salivary gland adenoma in a dog.

Acknowledgement

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