www.ThePharmaJournal.com

The Pharma Innovation

ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2023; SP-12(7): 2555-2557

www.thepharmajournal.com
Received: 12-05-2023
Accepted: 20-06-2023

M Sravanti
Assistant Professor and Head, Department of Veterinary surgery and Radiology, College of Veterinary Science, Rajendranagar, Hyderabad, Telangana, India

B Dinesh
PG Scholar, Department of Veterinary Surgery and Radiology, College of Veterinary Science, Rajendranagar, Hyderabad, Telangana, India

S Usha Jyothi
PG Scholar, Department of Veterinary Surgery and Radiology, College of Veterinary Science, Rajendranagar, Hyderabad, Telangana, India

Bhavya Madduri
4th Year B.V.Sc and AH, College of Veterinary Science, Rajendranagar, Hyderabad, Telangana, India

Corresponding Author:
M Sravanti
Assistant Professor and Head, Department of Veterinary surgery and Radiology, College of Veterinary Science, Rajendranagar, Hyderabad, Telangana, India

Surgical management of salivary mucocele (Ranula) in a Labrador dog: A case presentation

M Sravanti, B Dinesh, S Usha Jyothi and Bhavya Madduri

Abstract
A 2-year-old male Labrador dog weighing 34 kg was presented to the Veterinary clinical complex Hospital (VCC) Rajendranagar, Hyderabad with a history of gradually increasing soft swollen mass in the oral cavity on right side associated with oral discomfort. Clinical examination revealed fluctuating, painless mass close to the tongue. Paracentesis revealed clear saliva like fluid. Radiograph of head in lateral view revealed the location and extent of mass and we finally arrived at diagnosis as salivary mucocele. Marsupialization was performed and animal recovered uneventfully.

Keywords: Salivary mucocele, Paracentesis, Marsupialization

Introduction
A Salivary mucocele is an accumulation of saliva that has spilled from a damaged or injured salivary gland. Sublingual salivary gland is most commonly involved. Cervical, pharyngeal and sublingual are most commonly involved areas for development of mucocele (Waldron and Smith, 1991; Harvey, 1993) [5, 2]. Salivary Mucocele cavities are lined by granulation tissue rather than epithelial lining. Salivary mucocele can affect any dog irrespective of their breed (Jubb *et al*., 2012) [3]. The precise etiology was not determined. Foreign body, sialolith and blunt trauma have been suspected as possible causes of ranula (Yasuno *et al*., 2011) [6].

History and Clinical signs
A 2 year old male Labrador dog was brought to Veterinary clinical complex Hospital (VCC) Rajendranagar, Hyderabad with a history of soft, fluctuating mass beneath the tongue towards right side along with excessive salivation and difficulty in mastication was observed by owner (Fig.1). Feed intake was normal. Urination and defecation were normal. Physical examination of the site revealed a fluctuant, painless mass on buccal floor towards right side close to frenum linguae. On clinical examination the temperature was recorded as 102.90 F. Conjunctival and buccal mucus membranes were pale pink and moist. Paracentesis of fluctuant mass revealed saliva like fluid. Radiograph of lateral view of head revealed that the mass was salivary mucocele (Fig.2). So, the case was diagnosed as salivary mucocele.

Fig 1: Fluctuant mass beneath tongue towards right side

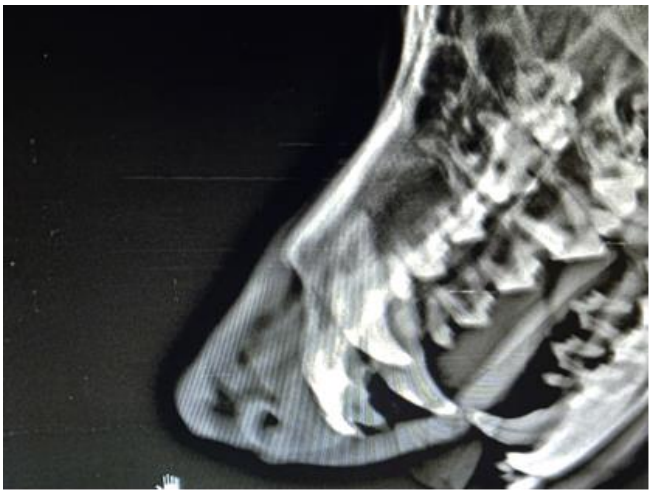


Fig 2: Radiographic view of right lateral head region showing salivary mucocele

Treatment and Discussion

The dog was fasted for 12 hours before performing the surgery. All the vital parameters were checked prior to the surgery and they were normal. Anesthesia was given as per the body weight of the animal. Xylazine @ 1mg/kg bwt, Ketamine @10mg/kg bwt that is 1.7 ml of xylazine with 6.8 ml of ketamine was calculated as total dose, of which 70% of total calculated dose was administered intra muscularly. After the animal was sedated, the surgical area was irrigated with metronidazole followed by povidone iodine. The animal was maintained under propofol @4-6 mg/kg bwt during the surgery. The animal was placed in left lateral recumbency, tongue was reflected and the surgical area was exposed (Fig.3). A circumscribed incision was made around the mass (Fig.4), ranula was excised with scissors and the capillary bleeding in and around the ranula was cauterised with the help of electro cautery. The surgical area was reconstructed with marsupialization by suturing the membrane of the ranula to the oral mucosa in simple interrupted suture pattern using a multifilament synthetic absorbable suture material i.e.,vicryl of 4-0 for continuous drainage of saliva (Fig.5)

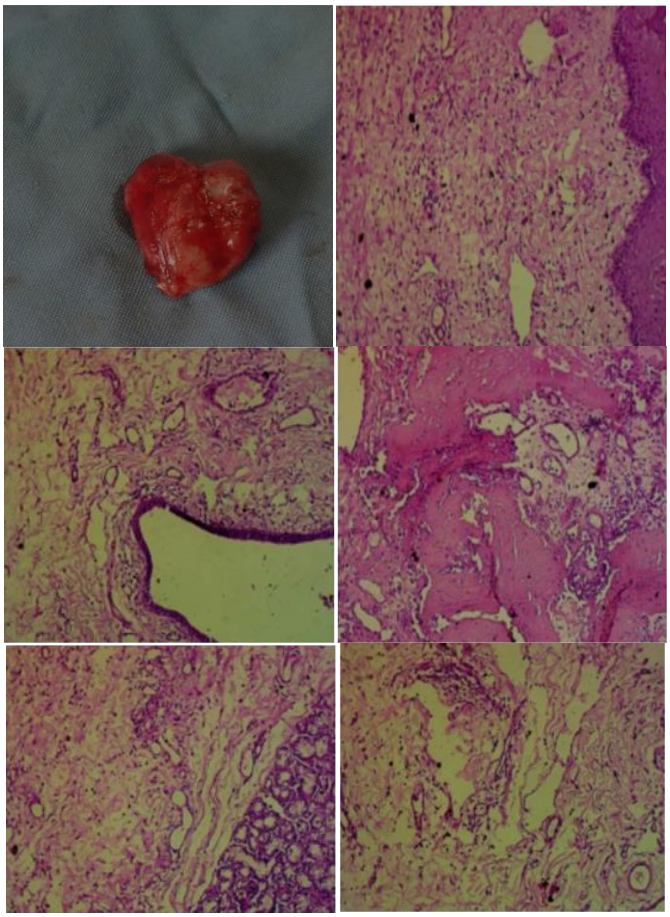
Fig 3: Animal was in left lateral recumbency with the reflected tongue and exposed surgical site

Fig 4: A circumscribed incision was made and Ranula was excised with scissors

Fig 5: Marsupialization by suturing the membrane of the ranula to the oral mucosa with simple interrupted suture pattern

Histopathology

Specimen type was salivary gland for Histopathological examination. Microscopic examination of the section revealed obstructive changes included- acinar atrophy, dilated ducts, periductal hyalinization, interstitial lymphoplasmacytic infiltration in salivary gland parenchyma. There was extensive proliferation of granulation tissue along with fibrosis admixed with the ductal structures and mucin indicating chronic nature of the condition. There was severe hyalinization of coagulative necrosed salivary glandular tissue noticed. No evidence of neoplasia was noticed. The case was diagnosed as Hyalinizing type Salivary mucocele or Ranula.



Post-operative care

Metrogyl DG forte gel (for application in the mouth), Tab. Carprofen – 50mg – BID, Tab. Pantop – 40 mg – BID, Tab. Cefpet XL – OID. The surgical area was advised to clean with metrogyl + NS after food for at least 10 days. These medications were advised to continue for 10 days.

Case discussion

A ranula is a thin walled swelling that result from ruptured sublingual or mandibular salivary glands or ducts below the oral mucosa next to the tongue. Ranula is mostly fluctuant, painless swelling located subcutaneously in intermandibular or ventral wall of proximal cervical region (Tobias, 2010) [4]. Marsupialization is a surgical technique perfomed to treat ranula where edges of mucocele is sutured to the mucosa and allowing the interior of mucocele close by second intention i.e, granulation (Fossum, 2019) [1]. In this case mucocele was incised and the edges were sutured to the mucosa using vicryl 4-0 in simple interrupted pattern. Marsupialization is effective in the management of ranula in this case and the animal recovered well. Prognosis was good.

References

1. Fossum TW. Small animal surgery, 5th Edn., Elsevier Mosby, 2019.
2. Harvey CE. Oral Cavity. In: Textbook of Small Animal Surgery. 2ndEdn. by Slatter, W.B. Saunders Co., Philadelphia, USA, 1993, p. 515-520.
3. Jubb KVF, Kennedy PC, Palmer N. Pathology of Domestic Animals, 5th edn., St. Louis, Missouri, Elsevier. 2012, 330-334p.
4. Tobias KM. Manual of small animal soft tissue surgery. Ames, Iowa, USA: Wiley-Blackwell; 2010.
5. Waldron DR, Smith MM. Salivary mucoceles. Probl. Vet. Med. 1991;3:270-76.
6. Yasuno H, Nagai H, Ishimura Y, Watanabe T, Yamasaki H, Anayama H. Salivary mucocele in a laboratory beagle. Journal of Toxicologic Pathology. 2011;24:131-135.