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## Management of sub-lingual salivary mucocoele (Ranula) with marsupialisation technique in a dog: A case report

**N Krishnaveni and AR Ninu**

### Abstract

A 1.5 years old male German shepherd was presented with the history of a swelling at the base of the tongue for three days. Oral cavity examination revealed ranula/sub-lingual sialocoele on right side of tongue adjacent to the phrenum linguae. Marsupialisation was done under general anaesthesia. Animal had an uneventful recovery.

**Keywords:** ranula, sub-lingual sialocoele, marsupialisation

### Introduction

An accumulation of saliva in subcutaneous tissue due to damage in a salivary gland or duct is called a sialocoele (Bellenger and Simpson, 1992) [2]. Salivary mucocoele is the most common clinically recognized disease of the salivary glands in dogs. Sialocoele occurs most often in dogs rarely in cats and a buffalo calves (Bassanino *et al.*, 2019 and Kalaiselvan *et al.*, 2021) [1, 3]. Sub-lingual sialocoele or ranula is the collection of extra-glandular and extra-ductal saliva in the floor of the mouth from the sublingual salivary gland. In the present case, sub-lingual salivary mucocoele or ranula was successfully managed with marsupialisation technique.

### Case history and observation

A 1.5 years old male German shepherd was presented with the history of a swelling at the base of the tongue since three days. On physical examination the dog was alert and active. Oral cavity examination revealed 4 cm long soft, fluctuating non painful sublingual mass on right side of tongue adjacent to the phrenum linguae (Fig. 1).

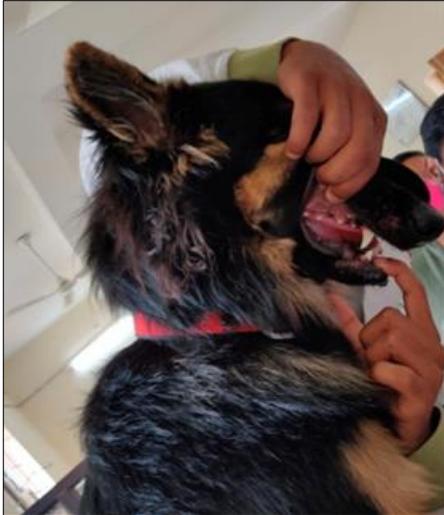
### Diagnosis

Based on the location of the swelling, the condition was tentatively diagnosed as ranula/sub-lingual sialocoele. Routine haematology and serum biochemistry values were within the normal range.

### Treatment and Discussion

Marsupialisation was done under general anaesthesia. Animal was pre-medicated with butorphanol @ 0.2mg/kg B.wt and xylazine @ 1mg/kg B.wt. Induction and maintenance of anaesthesia was done with ketamine @ 5mg/kg B.wt and diazepam @ 0.5mg/kg B.wt. Oral cavity was cleaned with Normal saline and diluted potassium permanganate solution. A linear incision was made over the centre of the swelling to drain the ranula. The cavity was irrigated with 0.1% povidone iodine solution. The edges of the incised sialocoele were everted and approximated to the mucosa of the tongue with interrupted catgut 3-0 suture (Fig. 2). Salivary mucocoele is a collection of mucoïd saliva that has leaked from a damaged salivary gland. The sublingual gland is most frequently affected. The reported incidence of salivary mucocoele in the dogs is less than 0.5%. It occurs most often in dogs of 2-4 years of age and occurs most frequently in German shepherd and in Miniature poodles (Smith, 2000) [5]. The causes of salivary mucocoele include blunt trauma, foreign bodies and sialoliths (Saifzadeh, S. 2004) [4]. Diagnosis of salivary mucocoele is based on clinical signs, history and paracentesis of the swelling (Smith, 2000) [5]. Sialography and CT can also be used to confirm the diagnosis.

Salivary mucocoele is treated with drainage of the sialocoele in conjunction with sialoadenectomy or marsupialisation. Marsupialisation ensures continuous drainage as long as the slit remains open. In presented case recurrence was not observed postoperatively and marsupialisation was an easily applicable technique to manage sublingual salivary mucocoele.



**Fig 1:** Soft, fluctuating non painful sublingual salivary mucocoele mass on right side of tongue adjacent to the phrenum linguae



**Fig 2:** Marsupialisation of Ranula – Post operative

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