

## SURGICAL MANAGEMENT OF CLEFT PALATE IN LABRADOR RETRIEVER

<sup>1\*</sup> Arja Avinash, <sup>2</sup> Jodumoni Kachari, <sup>3</sup> Arup Das, Udaya Sai Sitaram Tella,  
<sup>5</sup> Assad AI Imran, <sup>6</sup> Prudhvi Tej, <sup>7</sup> K.K. Abhilasha

<sup>1-3,5</sup> Department of Veterinary Surgery and Radiology, College of Veterinary Science, Khanapara, AAU, Jorhat.

<sup>4</sup> Department of Veterinary Pathology, College of Veterinary Science, Khanapara, AAU, Jorhat.

<sup>6</sup> Department of Allied Health Sciences, College of Ramiah University, Bangalore.

<sup>7</sup> College of Veterinary Science, Khanapara, AAU, Jorhat.

**Article History:** Received 1<sup>st</sup> March 2024; Accepted 28<sup>th</sup> March 2024; Published 22<sup>nd</sup> April 2024

### ABSTRACT

A 4 months old pup was reported to teaching veterinary clinical complex, college of veterinary science, khanapara, Guwahati with history of nasal discharge immediately after feeding the dog. After visual examination of the oral cavity found improper closure of the hard palate. Sliding bipedicle flap technique is used for constructing floor. Two incision is made on the margin of the dental arcade. The two hard palates is brought together and closed with simple interrupted sutures. Fluid therapy with crystalloids is given for 5 days, followed by soft diet for a week to prevent from rupture of sutures.

**Keywords:** Hard palate, Nasal regurgitation, Sliding bipedicle flap.

### INTRODUCTION

A cleft palate is an opening between the oral cavity and nasal cavity that occurs when the two palatine shelves fail to fuse during fetal development. If the birth defect occurs in the oral cavity this is known as secondary cleft palate. Factors attributing to the cleft palate may be inherited, hormonal, nutritional, mechanical, or toxic factors. Affected neonates unable to nurse effectively and die soon after birth. Some of the pups contaminate their nasal cavity with saliva and food.

### History

A 4 months old pup was reported to clinic with history of nasal discharge immediately after feeding, draining of milk or milk from the nares during or after nursing; coughing, and sneezing while eating.

### Diagnosis

Diagnosis of congenital or nasal fistula is made by visual examination (Figure 1) and abnormal respiratory sounds are heard in auscultation.

### Surgical Treatment

Blood analysis, surgical score given for the puppy and planned to fix the oro-nasal floor. Pre-operative procedure- Induction of the patient is done with Diazepam and Ketamine @0.5mg/kg and 5mg/kg respectively after induction animal is incubated with E.T. Tube and maintenance with Isoflurane @ 2%. Ceftriaxone is given @ 25mg/kg along with fluid therapy intravenously.

### Surgical procedure

The animal is placed in dorsal recumbency and the food material accumulated in the fistula is cleaned (Figure 2). Sliding bipedicle flap technique is used for constructing floor. Two incisions is made on the margin of the dental arcade. Avoid the damage of the major palatine arteries. Haemorrhage is controlled by pressure. The two hard palates is brought together and closed with simple interrupted sutures (Figure 3). For enhancing the healing between the margin of dental arcade and hard palate interrupted sutures is placed on the both sides for secondary

\*Corresponding Author: Arja Avinash, M. V. Sc. Scholar, Department of Veterinary Surgery and Radiology, College of Veterinary Science, Khanapara, AAU, Jorhat Email: [avi.arja2@gmail.com](mailto:avi.arja2@gmail.com).

intension healing. Once the swallowing reflex is started the E.T. tube is deflated and removed from trachea.

#### Post-operative care

Fluid therapy with crystalloids is given for 5 days, followed by soft diet for a week to prevent from rupture of sutures. Ceftriaxone @25 mg/kg for 5 days. Meloxicam @ 0.2mg/kg for 3 days.



**Figure 1.** Feed material accumulation



**Figure 2.** Surgical site after removing the Feed.



**Figure 3.** Cleft palate after repair

#### DISCUSSION

Secondary cleft palate surgical treatment is preferably done 8 to 12 weeks of age by considering anaesthesia risk, dehiscence and incomplete healing of oro-nasal fistula is common complication. The prognosis is good for successful cleft palate repair but several operations may require. Cleft palate is an inherited condition the animal must not use for breeding purpose preferably neutering must be done.

#### ACKNOWLEDGEMENT

The authors are grateful to the Head of the Department, Department of Veterinary Pathology, College of Veterinary Science, Khanapara, AAU, Jorhat, for providing the essential facilities for the study.

#### REFERENCES

- Headrick JF, McAnulty JF(2004). Reconstruction of a bilateral hypoplastic soft palate in a cat, *Journal of American Animal Hospital Association*, 40, 86.
- T.W.Fossum: Small Animal Surgery-4<sup>th</sup> edition. Michigan Ave Animal Hospital: Cleft Palate Repair in puppies.