

*Clinical Article*

## **RANULA IN BUFFALOES – A REPORT OF 3 CASES**

**G. Kamalakar**

Assistant Professor, Department of Surgery & Radiology,  
College of Veterinary Science, Proddatur, YSR Kadapa District – 516360, Andhra Pradesh  
E-mail: drkamal1vet@gmail.com

**Abstract:** Three buffaloes presented with signs of ptyalism, off feeding, protruded tongue and swollen sub mandibular region were confirmed as unilateral ranula based on anamnesis, clinical signs, careful oral examination and exploratory drainage. Up on incisional drainage and infusion of irritants followed by parenteral therapy, all the animals recovered well.

**Keywords:** Ranula, buffaloes, surgical drainage.

### **Introduction**

Ranula or sublingual sialocele is a retention cyst arising from occlusion of sublingual salivary duct or gland. It can be seen as a transparent cyst under the tongue close to phrenum linguae interfering with feeding (Venugopalan, 2000). Ranula might be resultant of leakage of saliva from injured sub lingual salivary duct (Fubini and Ducharme, 2004) or intra oral trauma (Misk *et al.*, 2014). Pair of sublingual salivary glands are present in buffaloes and one (Sagar *et al.*, 2010) or both (Krishna *et al.*, 2010) glands or ducts may be occluded. Affected animals show signs like ptyalism and inanition, which should be differentiated from FMD in endemic areas by careful examination. Present paper puts on record of ranula in three buffaloes and their successful surgical management.

### **Case history and Clinical observations:**

These cases were presented to Veterinary Dispensary, Bhattiprolu, Guntur district, Andhra Pradesh and the details are given below.

**Case 1:** 10 year old Graded murrah buffalo presented with off feed, severe ptyalism and protruded tongue since 3 days (Fig 1).

**Case 2:** 5 year old non-descript buffalo presented with history of stringy salivation, inanition and swollen sub mandibular space since 5 days (Fig 2).

**Case 3:** 8 year old graded murrah buffalo brought with history of protruded tongue, roapy salivation, off feed and open-mouthed condition (Fig 3) since 5 days.

---

*Received July 31, 2016 \* Published Oct 2, 2016 \* www.ijset.net*

Clinically all the animals were dull with mouth opened. Signs of mild stomatitis, ptyalism were evident and all the physiological parameters within normal range. Careful oral examination was done on protracting and holding the tongue to exterior. It revealed presence of swollen, congested fluctuating masses below the base of the tongue and no vesicular lesions were found. In cases 1 & 2 it was right sided and in case 3 it was huge and left sided swelling near phrenum linguae. Exploratory puncture with 18 G needle revealed honey coloured seromucinous fluid, confirming it as ranula and treated surgically.

#### **Treatment and Discussion:**

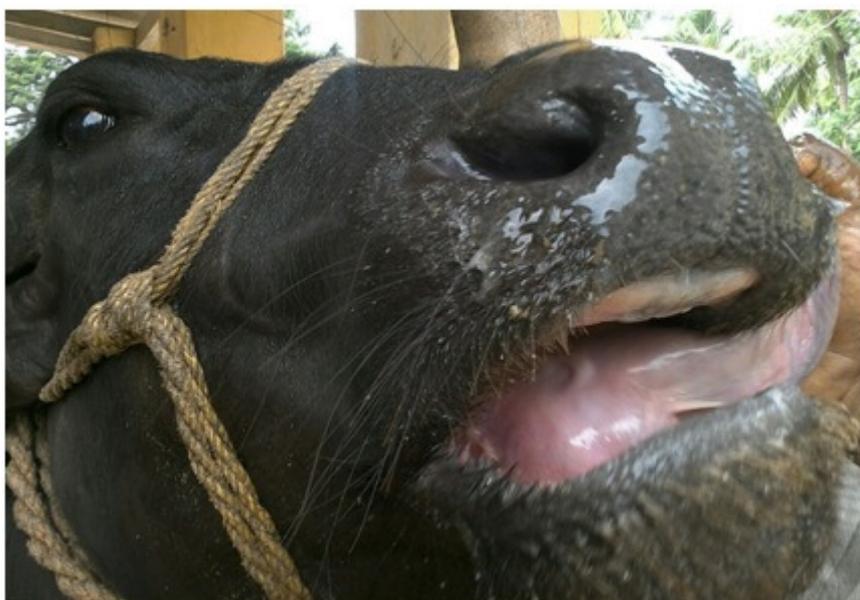
The animals were restrained in standing position in a travis. In case 2 only, inj. Xylazine hydrochloride @ 0.01 mg/ kg b. Wt. was administered as standing sedation. The tongue was pulled out and sprayed 2% lignocaine spray topically over the swelling. With a nick incision over most protruded part of the swelling, honey coloured seromucinous fluid was drained out. The cavity was flushed with dilute povidone iodine and damaged the lining membrane. 5 ml of tincture iodine was infused into the cavity and released the tongue. Post operatively administered with inj. Melonex 15 ml and AC-Vet forte 3g I/M and continued this treatment for next 3 days. No recurrence was observed even after one month post operation.

Aetiology for the present cases of ranula might be due to intra oral trauma (Misk *et al.*, 2014) during ingestion of coarse grass particles or excessive pressure or blunt injury over the salivary duct (Fubini and Ducharme, 2004) or sialoliths. The saliva leaked into surrounding tissues gradually accumulates producing a cystic structure. This saliva further causes irritation and inflammation of the wall leading to growth of granulation tissue that limits further migration of saliva (Fossum, 2013). This swelling will be painful initially and hence animal feels discomfort in taking feed. As the swelling increases in size, it becomes difficult for the animal for prehension, mastication and shows signs like ptyalism, open mouth with protruded tongue, sub mandibular swelling and inanition which were also observed by Sagar *et al.* (2010) and Misk *et al.* (2014). In all three cases, it was unilateral swelling but Krishna *et al.* (2010) reported bilateral ranula in a buffalo. History, clinical signs and exploratory puncture confirmed ranula in all cases. Holding the tongue outside facilitated easy oral examination and surgical procedure. Incisional drainage followed by infusion of irritants into cystic cavity destroyed lining membrane and prevented recurrence (Venugopalan, 2000). Other treatments like marsupialisation (Fossum, 2013) and unilateral removal of salivary gland (Misk *et al.*, 2014) were on record.

## References

- [1] Krishna, N.V.V.H., Thangadurai, R. and Bose, V.S.C. (2010). Surgical correction of bilateral ranula in a murrh buffalo. *Intas Polivet*. 11 (2): 157.
- [2] Venugopalan, G. (2000). Essentials of Veterinary Surgery, 8<sup>th</sup> edition, Oxford & IBH publishing Co. Pvt. Ltd., New Delhi. Pp: 87 & 299.
- [3] Fossum, T.W. (2013). Surgery of the digestive system, in *Small Animal Surgery*, 4<sup>th</sup> edition, Elsevier Mosby, Missouri, Pp: 417.
- [4] Misk, N.A., Misk, T.N., Semieka, M.A. and Ahmed, A.F. (2014). Affections of salivary ducts in buffaloes. *Open Vet. J.* 4 (1): 65 – 68
- [5] Fubini, S.L. and Ducharme, N.G. (2004). Farm animal surgery, W.B. Saunders Company.
- [6] Sagar, P.V., Rajesh, K. Kumar, D.S and Suresh, K. (2010). Sublingual sialocele in buffalo – a case report. *Anim. Sci. Reporter*. 4: 69-71.

**Fig 1:** Photograph showing unilateral ranula near (right side) phrenum linguae.



**Fig 2:** Unilateral ranula on right side in a ND buffalo.



**Fig 3:** Photograph showing left sided huge ranula in graded murrah buffalo.

