

## Symptomatic Congenital Ranula in a Crossbred Jersey Calf

R.Venkataramanan<sup>1</sup> and C.Sreekumar

Postgraduate Research Institute in Animal Sciences, Kattupakkam - 603 203, Kancheepuram, Tamilnadu.

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### Abstract

A case of congenital ranula involving the sub-lingual salivary gland in a Jersey bull calf is reported. Surgical excision of the cyst with salivary gland resulted in uneventful recovery.

**Key words:** Salivary cyst; calf

A congenital ranula is a cystic malformation in the oral cavity caused by fluid collection, either due to disruption of minor salivary ducts leading to extravasation of mucus in adjacent structures (not lined by epithelium) or by blocked duct (due to atresia, osteal adhesion or trauma) causing proximal expansion and a mucus retention cyst, lined by salivary duct epithelium (Sony *et al.*, 2012). They are formed in the floor of the mouth, when the sub-lingual salivary gland is involved. Very few case reports have been published worldwide and among those reported, most are from human beings (Symba *et al.*, 2011; Singh *et al.*, 2013). The present case

reports successful surgical correction of typical congenital ranula occupying oral space in a Jersey crossbred bull calf.

### Materials and Methods

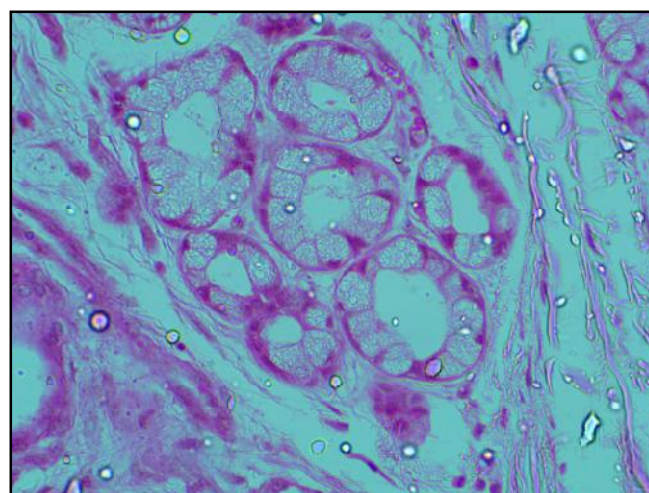
A full term male calf was brought with sublingual cyst causing the tongue to protrude out (Fig 1). The calf was unable to suckle and examination revealed soft, fluctuating, ranula caused due to obstruction of the sublingual salivary gland. The cyst, which was about 6 cm in diameter was forcing the tongue to protrude out. Histopathology confirmed glandular epithelium of the salivary tissue.

### Results and Discussion

The space occupying ranula prevented movement of tongue and the calf was unable to suckle. Animal was restrained laterally and the ranula was removed surgically under local anaesthesia. The base of the cyst was fixed using artery forceps and cyst along with ducts and salivary



**Fig 1.** Clock wise from top left: Sub-lingual ranula; Tongue protruding out; Glandular tissue of cyst after removal; Calf after surgery, tongue to normal position.



**Fig 2.** Histopathology of excised tissue showing glandular tissue of sub-lingual salivary gland.

<sup>1</sup>Corresponding author : Email : venkyvet@gmail.com

gland was removed. The free edges of cut portion were joined using 3/0 catgut. Boroglycerin paste was applied locally and calf was treated with antibiotic (Injection Streptomycin and Penicillin (20 mg/kg body weight). The calf was able to suckle and recovery was uneventful.

## References

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## Influence of Energy and Protein on Serum Biochemistry of Broilers Reared in Environmentally Controlled Houses

K. Rajendran<sup>1</sup>, K. Mani, P. Shamsudeen, V. Ramesh Saravana Kumar and A. Natarajan

Department of Poultry Science, Veterinary College and Research Institute, Namakkal- 637 002.

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### Abstract

An experiment was conducted by feeding diets with different levels of energy (2850, 2950 and 3050 kcal/kg in pre-starter diet, 2950, 3050 and 3150 kcal/kg in starter diet and 3050, 3150 and 3250 kcal/kg in finisher diet) and protein (21.5, 22.5 and 23.5% in pre-starter diet, 20.5, 21.5 and 22.5% in starter diet and 19, 20 and 21% in finisher diet) to commercial broilers for a period of five weeks to assess the serum biochemical parameters and the results are reported.

**Key words:** Energy, Protein, Biochemical parameters, Broiler.

Generally energy and protein are key nutrients required for normal body functioning and acting as essential constituents of animal body. Among these, protein having major effect on growth performance of the bird and is also the most expensive nutrient in broiler diets apart from energy. However a right proportion of these nutrients are essential to ensure maximum utilization of all nutrients for optimum growth of broilers.

### Materials and Methods

The biological experiment was carried out with 288 sex separated, day-old, commercial broiler chicks belonging to single hatch purchased from local hatchery. The chicks were wing banded, weighed and randomly allotted into nine treatment groups with four replicates of eight chicks in environmentally controlled housing system. In environmentally controlled house, the brooding temperature was set at 33° C on the first day and gradually reduced to 27 °C on 10<sup>th</sup> day and the same temperature was maintained till the end of the experiment. The humidity was set at 65 per cent from day one to 5 weeks of age. At the end of the experimental period (35<sup>th</sup> day), four males and four females, totally eight birds from each treatment group were randomly selected and blood samples were collected for serum biochemical analysis.

The collected blood samples were allowed to clot and centrifuged for 20 minutes at 1500 rpm to separate the sera. The sera samples were stored at -20°C for the analysis of total protein, albumin, globulin, A/G ratio and uric acid. The total protein content of serum was estimated by direct biuret method (Lowry et

<sup>1</sup>Corresponding author : Email : poultryrajendran@yahoo.com