



Sticking out of tongue in goats and its surgical intervention

Khalifah Ali^{1*}, Haithem Ali Mohamed Ahmed Farghali², Ashraf Ali Eldesoky Shamaa²

¹Public Authority for Agriculture Affairs and Fish Resources – Kuwait City, Kuwait

²Department of Surgery, Anesthesiology and Radiology, Faculty of Veterinary Medicine, Cairo University, Egypt

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*Corresponding Author

Khalifah Ali

✉ vet-1@live.com

ABSTRACT

The rare occurrence of tongue protrusion from mouth of goats is present in some rare breeds such Ardhi and Shami. This condition is considered undesirable by the majority of owners in Kuwait. Hanging tongue from mouth in normal condition diminish the beauty of animal which seriously impact commercial value of that animal. In addition it affects the normal life of an animal. Therefore addressing the case and treating is the objective of this study. Medicinal treatments for such cases are useless other than surgical intervention. In Kuwait, these cases have been observed in adult goats. And the symptoms were the appearance of the tongue protrusion in the left side generally. In addition to constant licking, fluid spills out of the mouth, dry tongue and the mouth is always dirty. The animals were subjected to surgical intervention. The extra portion of the tongue was removed successfully. After 2 weeks, there were no complications such as significant wound infection. Approximately after 10 days the stitch became disappear. The animal was came back to it normal appearance. The aesthetic value of the animal has been increased.

INTRODUCTION

Ardhi is the largest breed of goat and reared under harsh desert conditions. Their superior tolerance to the harsh environment, less demanding status of nutritional requirements and reasonable profit return from meat and milk production, make them the frontline in animal farming at Middle-East countries. Shami breed of goat originated in Middle East countries such as Syria and was imported by the British into Cyprus, where its qualities were improved by breeding.

The tongue is a movable muscle membranes organ. It has an attached root, body and free apex, capable of both vigorous and precise movements as in prehension, lapping, grooming and manipulation the food with in the mouth on the one hand and speech articulation on the other hand (Dyce et al. 2010).

The tongue mucosal surface is covered by a variety of papillae, filiform, conical, lenticular, fungiform, vallate and foliate. A few small salivary glands associated with these papillae. In domestic ruminants the transverse ridges on the hard palate and the projections on the tongue (papillae) help in the back-ward movement of ingesta and prehension of food (Nickel, et al. 1979).

Ulcerations on the tongue are commonly encountered in dental practice. Solitary ulcers of the tongue are more commonly caused as a result of sharp edges of a broken tooth or ill-fitting dentures. Other less commonly known causes include traumatic ulcerative granuloma with stromal eosinophilia, atypical histiocytic granuloma, infections like tuberculosis, late stage of syphilis or fungal infections like histoplasmosis (Gopalkrishnan et al., 1996).

The dorsal surface of tongue is rough and covered with raised structures called papillae. There are five classes of papillae: fungiform, circumvallate, foliate, filiform and lenticular. These papillae, generally, have similar characteristics in all animals. However, they exhibit large variations in form, arrangement and numbers depending on the particular lifestyle of the animal. The fungiform, circumvallate and foliate papillae are gustatory papillae that contain sensory receptors for taste, the taste buds. The filiform and lenticular papillae are nongustatory, mechanical papillae important in mastication (Bradley et al., 1985).

Mucosal abrasion or injuries to the tongue allow bacteria to establish infection. Cases may be more likely to occur in dry periods or when feeding coarse or prickly feed. The tongue becomes progressively disabled by swelling and fibrosis, and affected animals suffer weight loss due to difficulty eating and drinking.

Sticking out of the tongue is a rare case of goat which has impact on normal appearance and economic loss. Therefore the cases were subjected to surgical correction in this study.

MATERIAL AND METHODS

This case has been observed different farms belonging to Public authority for agriculture affairs and fish resources instate of Kuwait during 2017 to 2019. Numbers of cases were 12 and all the cases were found in adult. Clinical diagnosis was done based on the main symptom of tongue exit from the mouth.

Surgical techniques

The animals were prepared for surgical treatment by keeping them fasting for 12-hour. Animals were anesthetized by Xylazine at recommended dose (Hall et al., 2001). The surgical operation was performed at standing position. Local anesthetic Lidocaine 1.5ml was applied (Skarda and Tranquilli, 2007). The tongue was pulled out at maximum away from the mouth opening. The tongue was held with Doyen Intestinal Forceps. A surgical incision in the tongue as “V” moderate or inverted form was made. The wound was sewn with simple interrupted suture by absorbable suture number 2. The mouth cavity was clean by 0.9% sodium chloride and oxytetracycline spray. After 24 hours the cases become normal. Antibiotic was prescribed for 5 days.

RESULT AND DISCUSSION

This phenomenon of routine treatments such as general tonics is useless for treating the sticking out of tongue. The only solution is surgical intervention.

The extra portion of the tongue was removed successfully. After 2 weeks, there were no complications such as significant wound infection. Approximately after 10 days the stitch became disappear (Figure 1 & Figure 2).

The animal was came back to it normal appearance. The aesthetic value of the animal has been increased.

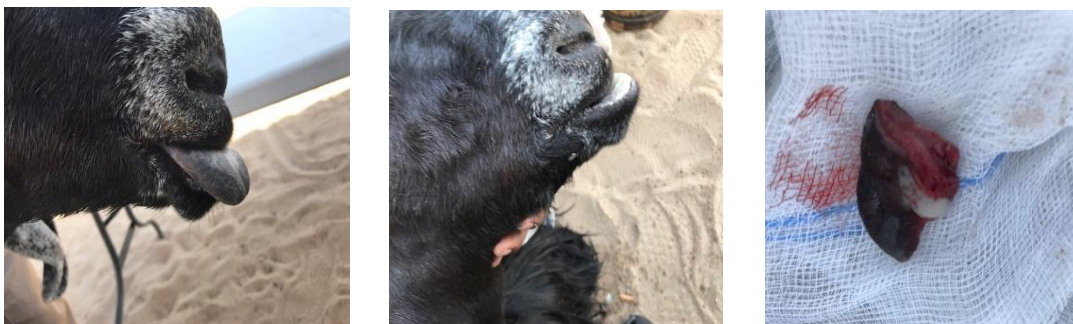


Figure 1: Ardhi breed of goat. Sticking out of tongue (left); appearance after surgical removal of hanging portion (middle); removed portion of the tongue (right).



Figure 2: Shami breed of goat. Sticking out of tongue (left); removed portion of the tongue middle); appearance after surgical removal of hanging portion (right)

The shami breed is a native breed of Syria and found in Middle East countries. Ardhi is the largest breed of Saudi Arabia and reared under harsh desert conditions.

The sticking out of tongue is different from other tongue diseases like blue tongue, wooden tongue of other animal. This problem of the tongue might be due to the genetic abnormalities or hot environment.

COMPETING INTERESTS

The authors declare no competing interests.

AUTRER CONTRIBUTIONS

Khalifah Khalaf Khatam Ali contributed to the collection of the data, clinical examination, and surgery. Haithem Ali Mohamed Ahmed Farghali contributed to the conception and design of the work in addition to writing of the manuscript. Ashraf Ali Eldesoky Shamaa contributed to the conception and design of the work in addition to revision of the manuscript.

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