

## Nasal tooth in a sheep- A case report

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### Abstract

A ewe was presented with a month long history of nasal discharge, respiratory stertor and loss of weight for over a month. Clinical examination revealed unilateral nasal discharge, asymmetry of nose and a pinkish mass protruding from right nostril. Palpation of the mass with finger revealed a hard consistency. Skull radiographs were taken in lateral and dorsoventral views, which revealed a tooth in the nasal chamber. A haemostat was used to grasp and gently remove the tooth. The ewe made an uneventful recovery. Sheep with signs of nasal discharge and irritation should be examined for presence of nasal foreign bodies.

**Key words:** Sheep, nasal tooth, skull radiograph, bone loss

Presence of teeth in nasal cavity is described as a form of supernumerary teeth, a rare condition in humans (Chen *et al.*, 2002). The etiology of intranasal teeth is unclear with cleft palate, maxillofacial trauma, Gardner's syndrome and cleidocranial dysostosis being described as potential causes (Choudhary and Das, 2008; Lee 2001; Lin *et al.*, 2004; Moreano *et al.*, 1989). Although obstruction of nares in sheep is attributed to a variety of causes like papilloma, adenocarcinomas, papillary adenoma, nasal polyps, parasites and foreign bodies (Rings and Rojko, 1985; Sid *et al.*, 2018; Wenzel *et al.*, 2018), no report of nasal obstruction due to a tooth has been described.

### Case History and Observations

An eight year old ewe (*Ovis aries*) was presented with one month history of nasal discharge and protruding mass from the right nostril.

Clinical exam revealed stertous inspiration, a pinkish round soft tissue mass visible in the external nares (Fig. 1) and mucopurulent nasal discharge from the right nostril. The ewe had a body condition score of 2 and had been losing weight since the lesion was noticed. The mass caused asymmetry of the nostrils.

On palpation, a hard, non-fluctuating mass was palpable in the right nostril. Radiograph in lateral (Fig. 2) and dorsoventral (Fig. 3) views of the skull revealed a tooth like structure in the right nasal chamber, one molar tooth was also found missing in the upper jaw

with maxillary bone loss.

The ewe was sedated using diazepam (0.2mg/Kg IV) and local anaesthetic (3ml, Lignocaine HCL 2%) was sprayed into the right nasal chamber. The mass was then grasped with a tissue forceps and was retrieved after applying some pressure. Mild nasal haemorrhage noticed was controlled by local application of 1 in 1000 adrenaline. The extracted mass was found to be a tooth after removal of the surrounding granulation tissue (Fig. 4). The animal made an uneventful recovery.

### Discussion

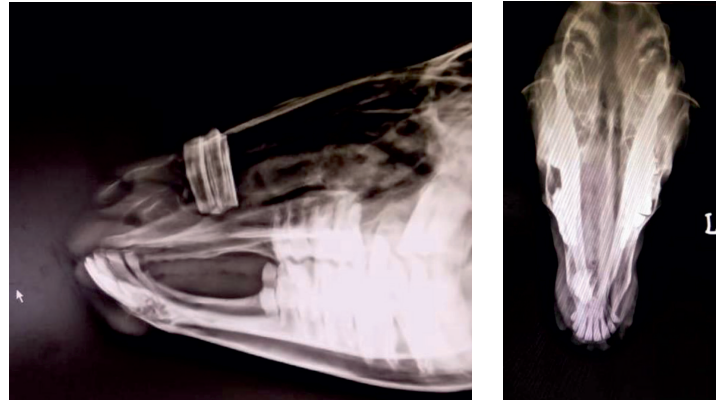
Sheep with obstruction of nasal cavity frequently rub their face against fixed objects. Frequent head shaking, sneezing, snorting, licking of nose, unilateral nasal discharge with foul odor are the typical symptoms. Differential diagnosis of nasal cavity obstruction includes foreign bodies, papillomas, adenocarcinomas, papillary adenoma, nasal polyps and parasites.

Specific pathogenesis of tooth loss in sheep is not clear. It may result from repeated episodes of acute gingivitis (Spence *et al.*, 1980; Moxham *et al.*, 1990). Radiographic evidence of bone and tooth loss in maxilla suggests that the tooth migrated into the nasal chamber and subsequent to sneezing it got struck rostrally as size of the nasal chamber decreases. Nasally displaced tooth has not been reported in farm animals but there is a report of nasally displaced mesiopalatal tooth root in a miniature Dachshund dog (Taylor *et al.*, 2004). Intranasal tooth in humans are completely or incompletely embedded in the nasal mucosa and have been removed either surgically

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**Fig. 1:** Asymmetry of nose with pinkish mass protruding from right nostril of ewe



**Fig. 2 & 3:** Lateral and Dorsoventral radiographs of skull showing a tooth in the right nasal cavity. A missing upper molar with bone loss is visible in the right maxilla.



**Fig. 4:** Tooth removed from right nostril

or via endoscope. In the present case, the tooth was incompletely embedded in the nasal mucosa and was easily removed via nasal approach.

In conclusion, sheep with signs of nasal discharge and irritation should be examined for presence of nasal foreign bodies. Diagnostic techniques like radiography and endoscopy if available should be used to differentiate between nasal bodies and their possible retrieval.

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