

*Case Report*

**SUCCESSFUL MANAGEMENT OF DENTAL FISTULA IN A GERMAN  
SHEPHERD DOG – CASE REPORT**

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**Abstract:** A 5 year old German shepherd dog presented with a history of bilateral epistaxis for 2 months with a swelling below the inner canthus of the left eye and extensive ulcer with foul smelling muco purulent discharges. On oral cavity examination it was diagnosed as dental fistula and was treated successfully by extracting affected tooth.

**Keywords:** Dog, epistaxis, dental fistula.

### **Introduction**

Dental fistula (Oroantral fistula) is understood to mean a fistular canal communicating root of the tooth with outside and in dog generally with fourth upper molar. In such cases communication between the oral cavity and the maxillary sinus occurs as a result of extraction of upper lateral teeth, which do not heal by means of a blood clot but inside which granulation tissue forms, and on the edges narrowing of its vestibule occurs by migration of the epithelia cells of the gingival proprie, which cover the edges of the vestibule and partially grow into the canal (Solker et al., 2002). The present paper discusses a case of dental fistula in a dog and its surgical management.

### **Case History and Observations**

A 5 year old German shepherd dog was presented to the Dept. of Surgery & Radiology, College of Veterinary Science, Tirupati, with a history of bilateral epistaxis for 2 months with a swelling below the inner canthus of the left eye and extensive ulcer with foul smelling muco purulent discharges (Fig.1). The dog had pyrexia and dyspepsia. On Oral examination revealed a periodontal disease affecting upper cheek teeth on right side characterised by ulcerated gum, pus along the gum line, severe tartar deposit and shaking teeth. Periodontal probing indicated the extend of fistula into the sinus and probing through the wound on skin confirmed its tip striking the root of the tooth. It was diagnosed as dental fistula and extraction of the affected teeth and drainage of sinus were advised.

## Treatment and Discussion

The dog was sedated with Inj. Atropine Sulphate @ 0.04 mg per kg bw i.m and Inj. Xylazine @ 1 mg per kg bw i.m 10 min. Prior to induction of general anaesthesia using ketamine hydrochloride i.v. administered @ 10 mg per kg bw respectively. The dog was kept on right lateral recumbency, the affected tooth and periodontal surface were cleaned using povidone iodine. Scaling of all affected teeth was performed and the shaking first and second upper molars on left side were extracted (Fig. 2). The maxillary sinus was thoroughly flushed with a 10 ml syringe using 1% povidone iodine solution followed by 10 ml gentamicin diluted with 150 ml normal saline for two days. A seton impregnated with povidone iodine was inserted into the sinus through the external orifice on the skin and taken out through the socket of extracted tooth and secured at teeth oral commissure. Post operatively, Ceftriaxone and tazobactam @ 20 mg/kg bw was administered i.v daily for 5 days and serratio peptidase 5 mg tablets per os bid for 3 days. Metronidazole dental gel was applied locally on the gums twice daily for 7 days. The ulcerated area was dressed daily with scavon ointment for 7 days.

Dental fistula with an external orifice on the skin rostral to the orbital rim is a rarely occurring complication of periodontal disease in dogs (Balagopalan, et al., 2013). In the present case, the dog was showing epistaxis without any other symptoms specific to dental fistula. The tissue changes of the periodontal structures were indicative of Stage IV periodontal disease. Sandra (2009) suggested exodontis and repairing with mucoperiosteal flap. The seton impregnated with povidone iodine kept in situ in the fistula was found to be effective in providing drainage from the sinus cavity and favoured healing without any further complications.

## References

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**Fig.1** Discharge from opening below the eye



**Fig.2** Extracted affected upper molar tooth