

## SURGICAL MANAGEMENT OF DENTIGEROUS CYST IN A BUFFALO

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The dentigerous cysts are congenital anomalies which appears at early stages of organogenesis. The cystic structure is generally developed together with hetero-topic polydontia (Wapf and Nuss, 2005; Brown *et al.*, 2007). The cystic changes frequently originate from the sites of teeth localisations. They are occasionally found on maxilla, mandible or muscle tissue and are associated with the gingiva. The cystic odontoma on ventral aspect of mandible was reported in buffalo (Purohit *et al.*, 2012). On the other hand, malformed unerupted teeth and their remnants develop from the mesenchymal parts of tissues of dental papilla, cementum and periodontium or oral mucosa (Rüsse,1998; Wapf and Nuss,2005).

### Case History and Clinical Examination

A nondescript buffalo, aged 3 years, weighing aprox. 300 kg, was brought to Department of Veterinary Surgery and Radiology, College of Veterinary Science and Animal Husbandry, Mhow with history of large fluctuating swelling on lower incisor gums since last five months. The pulse, respiration, rectal temperature and feeding were normal. The buffalo was parturated in the last week and milking was also normal. The swelled area was punctured with the help of 18 G, needle; white watery clear fluid was oozed out drop by drop through needle. History and clinical examination revealed it to be a case of dentigerous cyst.

### Treatment and Discussion

The surgical management of dentigerous cyst was commenced under Xylazine hydrochloride @ 0.02 mg/kg body wt. i/m. The swelled area was washed with water and antiseptic solution was painted over the operative area. A horizontal 3 to 4 inch incision was given on swelled area. All cystic materials were removed through the incision. The dentigerous cyst contains some cartilaginous part and after removal of the material, small blood oozed out and then the cavity washed with betadine and a mob socked with Tincture Benzoine was placed in to the cavity. The surgical wound was sutured with absorbable suture material vicryl no. 1 and one end of the surgical wound was left for the drainage. Postoperatively, streptopenicillin 2.5 g, chlorpheniramine maleate 10 ml i/m for seven days and meloxicam 10 ml i/m for three days and dressing with betadine was done alternatively for fifteen days. The wound was recovered uneventfully.



Fig.1: Buffalo showing Dentigerous cyst.

Dentigerous cysts attached to the cement and enamel of tooth/teeth adherent to crown can be easily diagnosed (Azaz and Shteyer, 1973 ). The surgical excision of cystic odontoma provide good control of the problem due to its benign nature and this was evidenced by no reoccurrence of the growth up to 8 months, post operatively as reported by Purohit et al. (2012). In present case, the cystic mass was surgically excised. Dentigerous cysts are subdivided into odontogenic and nonodontogenic types depending on whether they have deciduous permanent dental structures within. Thus, odontogenic cysts are reported as a more common cyst type than the nonodontogenic ones. However, it is documented that nonodontogenic cysts originated from "ear tooth" of horses in spite of its rare occurrence (Brown *et al.*,2007 ).

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