

CLINICO-THERAPEUTIC MANAGEMENT OF RHINITIS IN COWS: A CASE STUDY

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The present case report documents the occurrence of clinical case of rhinitis in five cows. The animals were clinically affected with the symptoms of bilateral nasal and ocular discharge and inflammation of nasal mucosa. Treatment was followed up with the administration of antibiotic, antihistaminic and anti-inflammatory preparations. The successful clinical recovery was reported after three days of therapeutic management.

Key words: Cows, Rhinitis, Treatment

Rhinitis refers to the inflammation of an animal's nasal mucous membrane manifested with serous, mucoid or purulent nasal discharge. It may extend to all the upper airways. Rhinitis may be acute or chronic. It characterized clinically by sneezing, wheezing and stertor during inspiration and nasal discharge which may be serous, mucoid or purulent in consistency depending on the cause (Qadri

and Ganguly, 2016). Exposure of animal to cold and humid weather, keeping the animal in ill ventilated shed, inhalation of dust, smoke, chemical vapour like ammonia, chlorine etc, sudden change in environmental temperature, malnutrition, stress and strain may predispose to the rhinitis.

Rhinitis is of minor importance as a disease process except in severe cases when it

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causes obstruction of the passage of air through the nasal cavities. Rhinitis may be viral, bacterial (Singh *et al.*, 2007), fungal, parasitic and allergic (Krahwinkel *et al.*, 1988 and Olchoway *et al.*, 1995). It usually occurs in conjunction with inflammation of other parts of the respiratory tract. Mucosal and Rinderpest virus infection, Infectious bovine rhinotracheitis virus infection (Ganguly and Mukhopadhyay, 2010 and Ganguly *et al.*, 2011), Adenovirus infection, Rhinosporidiosis caused by fungi (Kaufman *et al.*, 1997), the blood fluke *Schistosoma nasalis* may cause rhinitis in cows (Qadri and Ganguly, 2016).

Five clinical cases of cows were presented during the period December 2015 to March 2016 at Krishi Vigyan Kendra, Sitamarhi district, Bihar. All the animals were within 3-5 years age. Animals were attended with the history of continuous nasal discharge, high body temperature, difficulty in respiration and inappetance for 2 days.

Clinical examination revealed that animal has 103°F body temperature, bilateral nasal discharge. Discharge was mucoid and continuous. Animals had excretion from conjunctival sac. There was difficulty in respiration which was due to oedema of the nasal mucosa. Animals had the tendency of rubbing their muzzle on the ground and shaking their head. On the basis of clinical

findings the case were diagnosed to be acute rhinitis.

Thick nasal exudates causing nasal obstruction was removed manually and nasal cavities were irrigated with normal saline. Antibiotic treatment was given to all animals for 5 days (Intacef 3 gm intramuscularly daily). Antihistaminic injections were administered for 3 days (Anistamin 20 mL intramuscularly daily). Antiinflammatory injections were administered for 3 days to all animals (Maxxtol 20mL intramuscularly daily). Injection of Tribivet was given to all animals for 3 days @ 10 mL intramuscularly daily. All the affected animals were allowed the access to inhalant vapour of tincture benzoin where 30 mL of tincture benzoin was mixed in a bucket full of water. Head of the animal was held above the bucket and covered with towel and it was allowed to inhale the vapour.

After first day of treatment animals get normal temperature and started normal feeding but nasal discharge and slight difficulty in respiration was present. After completion of treatment of 3 days animal was cured. The findings of the present clinical case study were in concurrence to the observations of Singh *et al.* (2007), McEntee (1987), Krahwinkel *et al.* (1988) and Ganguly *et al.* (2010). The findings

were also found to be in concurrence with the reports of Qadri and Ganguly (2016) who documented the successful therapeutic treatment of *S. nasale* infection in an 8 year old crossbred Holstein Friesian (HF) cow with the administration of Anthiomaline

(Lithium Antimony Thiomalate) @ 15 mL intramuscularly three doses at weekly intervals.

Successful recovery of clinical rhinitis was reported after proper treatment and therapeutic management.

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