Short Communication

A STUDY ON OUTBREAK OF BLUE TONGUE DISEASE IN LIVESTOCK OF ERODE DISTRICT OF TAMILNADU

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Blue tongue is one of the most important arthropod borne infectious diseases of sheep in Southern India (Sreenivasulu and Subba Rao, 1999). It is caused by a RNA containing Orbivirus of Reoviridae family. Twenty four antigenic strains of the virus have been identified, which vary in their pathogenicity. It spreads through blood sucking midges of the genus *Culicoides* and is more pronounced during the monsoon season when the vector population is more (Wilson Aruni *et al*., 1999). Factors such as unrestricted animal movement, rain fall, geographical location, and multiple serotypes have made the control of the disease difficult (Shasidhar *et al*., 1998). In Tamil Nadu, Erode District ranks first in total sheep population and outbreak of any disease in sheep causes severe economic loss to the livestock farmers of the district. Hence information on the season of the disease occurrence, area and species most affected by blue tongue based on previous outbreaks are very useful for the disease forecasting. The present study deals with an epidemiological pattern of blue tongue in Erode District of Tamil Nadu.

MATERIALS AND METHODS

An investigation was made by Veterinary University Training and Research Centre, Erode and Animal Disease Intelligence Unit, Erode on incidence of blue tongue disease among sheep and goats in Erode district of Tamil Nadu during 2004 - 2008. The morbid animals were examined and the clinical manifestations were recorded along with history of disease incidence and mortality among sheep and goats due to blue tongue in Erode District were recorded.

RESULTS AND DISCUSSION

The investigation revealed that a total of 1388 sheep were affected with a mortality of 239 sheep during the period. The disease caused an average mortality of 17.2% in sheep, with highest mortality rate of 18.8% during December-2005 and a lowest mortality rate of 14.2% during December-2004 and this could be attributed to the heavy rainfall during these months, which would have favored the multiplication of vectors *Culicoides sp*.. The morbidity and mortality rate recorded during the present outbreak were less compared to the previous outbreaks reported by Wilson Aruni *et al*. (1999).

The affected sheep showed the clinical signs of fever (40.5^{0}C - 41^{0}C), mucopurulent nasal discharge and frothy salivation with rhinitis and stomatitis, edema of lips, gums, dental pad and tongue, necrotic ulcers on lateral side of tongue leads to difficulty in swallowing of feed and diarrhoea. Some of the affected sheep showed foot lesions such as laminitis, coronitis and dark red skin band just above the coronet. On 10th to 12th day wryneck was seen in affected sheep due to stiffness of muscles. During this period, partial or complete losses of wool, cracking of hooves were observed. The clinical signs recorded during the investigation were in accordance with Hungerford (1990).

The clinical form of the disease was only seen in sheep. Infection in cattle and goat was not noticeable. This observation was in agreement with Sreenivasulu and Subba Rao (1999). The history and the clinical signs recorded were suggestive of blue tongue.

The affected animals were isolated and treated with antibiotics. Oral cavity washed with 1% potassium permanganate solution and boric powder in coconut oil was applied. Affected animals fed with porridge of rice, ragi and kambu, resulted in recovery of affected animals.

Past outbreaks in Tamil Nadu recorded in 1987, 1997, 1999 and 2001 (Wilson Aruni *et al*., 2001) were during North – East Monsoon. The present outbreak also occurred during November and December when there were heavy rainfall with water stagnation, which would have favored the multiplication of vectors (*Culicoides sp*.).

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