INCIDENCE OF BLUETONGUE IN SHEEP IN PUDUKKOTTAI DISTRICT OF TAMIL NADU

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ABSTRACT

Occurrence of Bluetongue in 4 flocks of sheep in Pudukkottai district of Tamil Nadu during the year 2003 was confirmed by AGID. The clinical signs observed were fever ($41^{0}C$), bloody nasal discharge, ulcers in tongue and gums, wry neck and coronitis. 40% morbidity and 10% mortality were recorded. Isolation and treatment of sick animals resulted in recovery of normal health in the flock. Rain suspected to be a predisposing factor in this outbreak.

KEY WORDS : Bluetongue – Sheep – Clinical signs - Incidence

INTRODUCTION

Bluetongue is one of the viral diseases of domestic and wild ruminants caused by *Orbi virus* and transmitted by culicoides, an ectoparasite of flies. The disease prevalence has been reported worldwide and widespread in India (Mehrotra, 1991 and Wilson *et al.,* 1994). In Tamil Nadu, it was first reported in Dindigul region in the year 1982 followed by a sporadic incidence in the southern districts during 1987 (Manickam, 1999). This report highlights the recent outbreak of Bluetongue in sheep in Pudukkottai district of Tamil Nadu during November - 2003.

MATERIALS AND METHODS

Four flocks of sheep with a population of 200 animals, exhibited clinical signs of Bluetongue disease were examined in Pudukkottai district of Tamil Nadu during November - 2003. The clinical signs exhibited by the ailing animals were recorded and presented. Blood samples collected from ailing animals at febrile stage were sent to the Central University Laboratory, Madhavaram, Chennai for the confirmation of the disease.

RESULTS AND DISCUSSION

The occurrence of Bluetongue in sheep during November - 2003 in Pudukkottai district of Tamil Nadu was confirmed by detecting the Bluetongue virus antigen in the blood samples of the sheep by Agar gel immunodiffusion test (AGID). Sheep in the age group of 3 months to 3 years were found to be affected in this outbreak. The morbidity and mortality were found to be 40% and 10% respectively. The high morbidity and mortality rate could be attributed to the high rainfall which would have favoured the multiplication of vectors *(Culicoides sp.)* resulting in the severe outbreak of the disease. The clinical symptoms observed in the affected cases includes high fever ($41^{o}C$), blood stained nasal discharge, excoriation of epithelium at the tongue, gums, buccal commissures and cheeks, wry neck and coronitis. Most of the observations recorded in the present study simulate the clinical signs reported by Sastry (1983), Hungerford (1990) and Piramanayagam *et al.* (2000). Sheep were the only species showed the clinical symptoms of the disease while goats, cattle and buffaloes which were in close contact with the ailing sheep population have not manifested any signs of the disease which coincides with the observations reported by Manickam, (1999) and Srinivasulu and Subba Rao, (1999). All the affected sheep were isolated from the flocks. Turmeric powder in neem oil was applied on the oral cavity after washing with 0.1% potassium permanganate solution and long acting oxytetracycline was administered to control secondary bacterial infection.

Other treatment measures such as clinical management of myiasis, administration of gruel to prevent starvation death and protection of infected sheep from incessant rain were adopted.

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REFERENCES :

Hungerford, T.G. (1990) Diseases of livestock. 9th ed. McCraw, Hill Book Company, Sydney. Pp.192.

Manickam, R. (1999). Manual of Seminar on Disease intelligence and diagnosis for field veterinarians. TANUVAS, Chennai.

Mehrotra, MC. (1991). *Indian J. Anim. Sci.,* **59** : 1072.

Piramanayagam, S., Subramanian, S., Balachandran, S., Chellapandian, M. and Balakrishnan, G. (2000). *Indian J. Small Ruminants.* **6**(2) 98-99.

Sastry, G.A. (1983). Veterinary Pathology. Sixth edn. CBS Publishers, New Delhi. Pp.648.

Srinivasulu, D. and Subba Rao, M.V. (1999). *Indian Vet. J.,* **76**:461.

Wilson, A., Ramadoss, P., Prabhakar, T.G. and Chandran, N.D.J. (1994). *Indian J. Vet. Res.,* **3**: 68

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