OUTBREAK OF MYCOPLASMOSIS IN AN ORGANISED GOAT FARM IN KANNUR DISTRICT OF KERALA

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Mycoplasmal infections cause respiratory diseases of major economic significance in farm animals, especially in ruminants, pigs and poultry (Quinn *et al.*, 2002). Of the mycoplasma infection of goats, contagious caprine pleuropneumonia (CCPP) occurs in Africa and Asia. Classical, acute CCPP is caused by *Mycoplasma capricolum* subsp. *capripneumoniae*, originally known as the F38 biotype (World Organisation for Animal Health, 2008). This organism belongs to a closely related group of mycoplasmas called the *Mycoplasma mycoides* cluster. Two other organisms in this group, *M. mycoides* subsp. *capri* and *M. mycoides* subsp. *mycoides* large-colony type, can cause a disease in small ruminants that resembles CCPP but may have extrapulmonary signs and lesions. *Mycoplasma capripneumoniae* and other members of the *M. mycoides* cluster cross react in serological tests and share biochemical and genetic similarities (Centre for Food Security and Public Health, 2008). This report deals with an outbreak of mycoplasmosis in an organised private farm in Kannur district of North Kerala.

A rapidly spreading infection with fever, nasal discharge, cough, respiratory distress, grunting, conjunctivitis and mortality was observed in a private goat farm in Kommeri in Kannur district during January 2008. From among the 100 animals housed in the farm, representative blood samples were collected from eight affected and in contact animals. Blood smears were made and examined for haemoprotozoans after staining by Giemsa stain. Serum was separated and tested for antimycoplasma antibodies by rapid plate agglutination test as described by Srivastava *et al.* (1991) using *M. mycoides* subsp. *capri* plate test antigen (Rose Bengal coloured) procured from the Division of Bacteriology and Mycology, Indian Veterinary Research Institute (IVRI), Izatnagar. Briefly the test was conducted as follows.

Twenty microlitres each of coloured antigen and test serum were mixed on a clean glass slide and the agglutination reactions were graded as 1+ to 4+ according to the size of the agglutinate and speed of their formation. A rapid coarse flocculation occurring in 15 to 30 sec was given 4+, a similar but less flocculation and complete in two minutes as 3+, a definite reaction but far from complete 2+ and a very fine flocculation detectable only in good light 1+. Any agglutination after two minutes was taken as non-specific reaction. The test was performed with positive and negative controls.

Of the eight samples tested, five (62.5 per cent) tested positive for antimycoplasma antibodies. The clinical signs of cough, respiratory distress and conjunctivitis associated with the infection correlated well with the serological findings and hence the disease was diagnosed as mycoplasmosis. Peste des petits ruminants (PPR) was ruled out as enteritis was not seen in any of the cases. Haemoprotozoans were not detected in any of the blood smears.

Prevalence of mycoplasma infection in goats in other states of India has been reported (Ghosh *et. al.*, 1989; Pradhan, 1997; Shaheen *et. al.*, 2001; Barbuddhe *et. al.*, 2005; Ingle *et al.*, 2008). The prevalence of the disease in Wayanad district of Kerala has also been established (Priya *et al.*, 2008). Mycoplasmosis being an economically significant disease of caprines, measure are to be taken for preventing its occurrence.

Summary

An outbreak of an infectious disease was reported in a private goat farm in Kannur district of Kerala. The main clinical symptoms observed were fever, nasal discharge, cough, respiratory distress and grunting. Out of the

eight sera collected from the animals of the farm, five (62.5 per cent) had antimycoplasma antibodies when tested by the rapid plate agglutination test. The disease condition was diagnosed as mycoplasmosis on the basis of the results of the serological test.

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