

## RESEARCH ARTICLE

### OCCURRENCE OF *PESTI DES PETITIS RUMINANTS* (PPR) IN SHEEP AND GOAT FARM

\*Bharathy, N., Senthamil Pandian, C., Chinnamani, K., Bandeswaran, C.,  
Murali, N., Muralidharan, J. and Akila, N.

Mecheri Sheep Research Station, Pottaneri, Tamil Nadu

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#### ABSTRACT

*Pesti des Petitis Ruminants* is a highly contagious disease of goats caused by virus belonging to morbillivirus genus of family "Paramyxoviridae". *Pesti des Petitis Ruminants* is an acute or sub acute viral disease of goats and sheep and literarily means "disastrous diseases of small ruminants" in French. Usually goats are more severely affected than sheep. In India, *Pesti des Petitis Ruminants* was first reported in 1987 from Arasur village in Villupuram district of Tamil Nadu, South India (Shalia *et al.*, 1989). Since its first reported occurrence in 1987, *Pesti des Petitis Ruminants* was thought to be restricted to southern India upto 1993, after which the epidemics of *Pesti des Petitis Ruminants* devastated large number of small Ruminants from northern India by Nanda (1996). Since then *Pesti des Petitis Ruminants* has been reported regularly from different parts of the country. The disease is considered as an endemic disease causing great loss to small ruminants of the country. Now the disease has spread all over India. There is also a common confusion of *Pesti des Petitis Ruminants* with pneumonic diseases of small ruminants which delays its recognition and preventive measures.

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## INTRODUCTION

### Case History and observations

An occurrence of *Pesti des Petitis Ruminants* (PPR) in young (less than one year of age) and adult Salem Black and Tellicherry goats and in Mecheri Sheep was observed at Mecheri Sheep Research Station, Pottaneri, Salem, Tamil Nadu, India during summer season. All the animals had been vaccinated against PPR with live attenuated PPR vaccine. The outbreak occurred one month after introduction of Salem Black goats from the farmer's flock kept under quarantine which were also vaccinated. Both sheep and goats were kept under the same housing and management conditions. The migrated animals had been dewormed and were all apparently healthy. The disease was first observed in young Salem Black goats with clinical signs of high fever, dullness, depression, conjunctivitis with ocular and nasal discharge followed by young and adult Tellicherry goats and Mecheri sheep in Fig.1 The postmortem examination revealed severe ulceration in oral gums, tongue, oesophagus and severe hemorrhages in internal organs and enlargement of the spleen and lymph node were also seen in Fig. 2, Fig. 3.

## TREATMENT AND DISCUSSION

The samples were collected in apparently healthy, diseased and recovered animals and sent to laboratory for confirmative diagnosis. The laboratory results confirmed the incidence of PPR by complementary fixation test.

Affected animals were kept in isolation and treated with intravenous fluid like dextrose normal saline (10 mg/kg body weight) for the treatment of diarrhea and restoration of body fluid ionic balance for seven days as described by Wosu (1989) and Rita Narayanan *et al.*, (2008). Clinical cases of PPR were treated with broad-spectrum antibiotics like Enrofloxacin @ 5 mg/kg body weight and Oxytetracycline @ 10mg/kg body weight), anti-inflammatory drugs like Meloxicam @ 0.3 mg/kg body weight, antihistaminic like pheniramine maleate and supportive therapy such as B complex vitamins. To reduce stress immunomodulators like restobal were given as described by Saliki (1998).

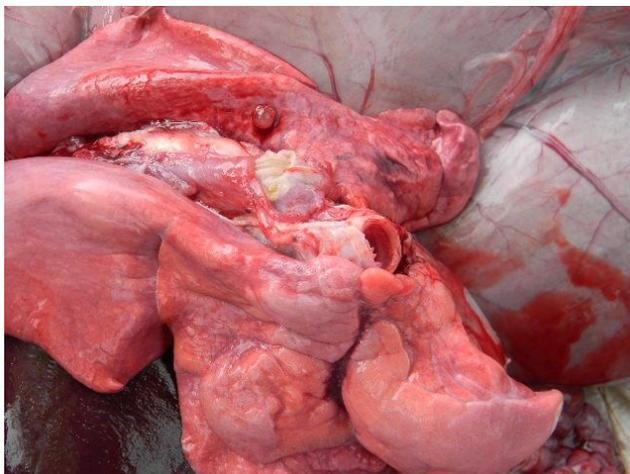


Fig. 1. Oral lesion in a sheep affected with *Pesti des Petitis Ruminants*

\*Corresponding author: N. Bharathy  
Mecheri Sheep Research Station, Pottaneri, Tamil Nadu



**Fig. 2. Mucopurulent discharge from eyes and nose in a goat affected with Pesti des Petitis Ruminants**



**Fig. 3. Congestion in lungs in a goat affected with Pesti des Petitis Ruminants**

The reason for the outbreak of the diseases may be due to migration of animals from one place to another. Environmental stress particularly hot and humid climate contributes for the precipitation of the diseases (Wous, 1995).

Saliki (1998) reported pronounced clinical symptoms and mortality among the young animals due to poor nutrition and concurrent parasitic infection. The morbidity and mortality percentage of goats were 100 % and 19.19 % respectively which was lower compared to the reports of Dhar *et al.*, (2002) and Rita Narayanan *et al.*, (2008). The reason for decreased morbidity and mortality could be due to the age of the susceptible animal and managerial practices. The affected goats were fed with ragi gruel (finger millet) as they were anorectic due to painful oral lesions. The oral cavity was washed twice a day with a dilute solution of potassium permanganate and glycerin was smeared on the gums, tongue and palate for soothing effect. The sheds were disinfected with Kohrsolin –TH (OIE - 2002) spray every week. The incidence of the disease in animals which were already vaccinated suggests that further confirmation has to be carried out for the immune status of the animals and strict quarantine measures during introduction of animals from farmers field.

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