

PROBABLE PESTE DES PETITIS RUMINANTS IN FREE-RANGING SPOTTED DEER (*AXIS AXIS*)

K.S. Subramanian

Veterinary University Training and Research Centre, Rajapalayam, Tamil Nadu 626117, India.

Email: drkswildlifevet@yahoo.co.in

Peste des Petits Ruminants (PPR) is an acute, febrile, highly contagious disease predominantly affecting goat and sheep. It is caused by morbilli virus of Paramixoviridae family that is closely related to the rinderpest virus. Jithendran *et al.* (2000) opined that PPR was emerging as one of the most important diseases of goats and sheep as several incidences were reported throughout the year. PPR was first observed in 1940 in sheep and goats in the Ivory Coast of West Africa. In India, PPR was first reported in Tamil Nadu in 1989 (Shaila *et al.*, 1989) in sheep. PPR had been experimentally produced in White-tailed Deer (Wallach & Boever, 1983). The present paper documents an incidence suggestive of PPR in free-ranging Spotted Deer (*Axis axis*) in southern Tamil Nadu.

A carcass of a Chital from the Grizzled Giant Squirrel Wildlife Sanctuary, Srivilliputhur, was presented for postmortem examination. After postmortem, specimens for histopathological examination (lungs, liver, heart and kidney in 10% formal saline) and serological examination (spleen in 50% glycerol saline) were collected and sent to the Central University Laboratory, TANUVAS, Chennai for analysis.

Examination of blood smears revealed no etiological significance. Postmortem findings included inflammation and congestion of lungs, frothy exudates in the trachea and serous nasal discharge. There was no specific lesions in the alimentary tract. The spleen showed congestion and enlargement. Histopathological examination of the spleen revealed lymphoid depletion and oedema which was similar to the findings reported by Jithendran *et al.* (2000). Serological examination of the spleen at Central University Laboratory, TANUVAS, Chennai, revealed the presence of PPR virus-specific antibodies by HA and HI test.

According to Chattopadhyay and Somvanshi (1999), in case of PPR, the lesions generally resemble that of Rinderpest characterized by the development of small discrete necrotic

area on the mucosa of mouth, tongue, pharynx, oesophagus, which subsequently become ulcerated leading to necrotic mucosal erosions in the alimentary tract. The examination of heart blood cultures and tissue impression smears did not reveal any involvement of bacterial pathogens. Histopathology of the lung tissues revealed bronchopneumonia and infiltration of mononuclear cells which confers with the findings reported by Shaila *et al.* (1996). Jithendran *et al.* (2000) stated that in case of PPR, the lungs showed complete hepatization of apical lobes with foci of consolidation and frothy exudates in the trachea. This coincided with the observations of the present study. In a study to select the material of choice from dead and ailing animals for PPR antigen detection, Rajarajeswari *et al.* (2000) reported that the spleen in case of dead animals and citrated blood samples in ailing animals were the materials of choice. Wallach & Boever (1983) opined that wild animals may act as carriers of many infectious diseases without exhibiting clinical symptoms and lesions. The probable prevalence of PPR virus specific antibodies in Spotted Deer indicated the possible sub-clinical and/or inapparent infection which may be of epidemiological significance as reported by Sudharshana *et al.* (1995).

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