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RESEARCH ARTICLE

CLINICAL AND THERAPEUTIC MANAGEMENT OF PESTE – DES – PETITIS RUMINANTS (PPR) IN OVINES

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ABSTRACT

The study focused on clinical and therapeutic aspects of Peste – des – Petitis Ruminants (PPR) in sheep. The sheep were presented with the clinical history of dullness, depression, severe oculo-nasal discharge and diarrhoea. Oral cavity revealed erosive and necrotic lesions on gum and tongue along with bran like fibrin deposits. Clinically affected sheep were treated with broad spectrum antibiotics like Inj. Enrofloxacin @ 3.5 mg/kg b. wt along with Inj. Meloxicam @ 0.5 mg/kg b. wt and other oral supportive therapy for three days.

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INTRODUCTION

Peste – des – Petitis Ruminants (PPR) is a highly contagious, infectious, acute and sub – acute economically important viral disease of sheep characterized by fever, oculonasal discharges, erosive stomatitis, enteritis and pneumonia (Tariq *et al.,* 2014). WHO has identified PPR as a notifiable and economically important transboundary viral disease of small ruminants (Balamurugan *et al.,* 2011). At present PPR is enzootic in India and outbreaks occur regularly among small ruminants throughout the country (Kerur *et al.,* 2008). The disease can be diagnosed by various referred serological tests as per OIE manual of diagnostic tests and vaccines for terrestrial animals. PPR like other viral diseases has no specific treatment, however mortality may be decreased by using drugs that control the bacterial complications. Also, combined drug therapy can save the animal life in field (Islam *et al.,* 2012)

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History and Clinical Examination

A disease investigation was carried out to find out cause of mortality among five out of 30 sheep in an organized farm. All affected animals were examined and they showed dullness, depression, severe oculonasal discharge and diarrhoea. Oral cavity revealed erosive and necrotic lesions on gum and tongue along with bran like fibrin deposits (Fig. 1). Diarrhoea was observed in two ailing animals. Necropsy of one dead animal revealed edematous lung with severe consolidation (Fig. 2). Intestinal mucosa appeared severely haemorrhagic and congested. Samples such as heart blood swab, nasal swab and lung sample were collected from dead animal and samples such as whole blood and nasal swabs were collected from three ailing animals for diagnosis. Three nasal swabs collected from ailing animals and lung sample collected from necropsied animal were subjected for bacteriological isolation studies. Nutrient agar and MacConkey agar were used as primary culture media for isolation of organisms from samples as described by Quinn *et al*. (1994).

Fig. 1. Note erosive and necrotic lesions on gum and tongue along with bran like fibrin deposits

Fig. 2. Note consolidation of lung with emphysematous areas

Samples were inoculated on nutrient agar medium and incubated at 37 °C for 24 hours and the colonies were subjected for morphological and various biochemical tests.

Treatment and Discussion

Affected animals were isolated from the main flock and treatment was initiated. Clinical cases of PPR were treated with broad spectrum antibiotics like Inj. Enrofloxacin @ 3.5 mg/kg b. wt intramuscularly along with Inj. Meloxicam @ 0.5 mg/kg b. wt intramuscularly for three days. Supportive treatment liked Dextrose normal saline (100 ml OD, Intravenously) was administered for three days for restoration of body ionic fluid balance.

During clinical examination of PPR affected animals, Islam *et al.,* (2014) and Tariq *et al.,* (2014) recorded fever, nasal discharges erosions on gums and tongue, depression and diarrhoea as common complaints in PPR affected animals as also observed in the present study. Mania *et al.* (2015) also stated that fever and nasal discharges appears first i.e between 8 – 9 days post inoculation in small ruminants whereas, diarrhoea and dehydration observed at 13 – 14 days post infection as also observed in the present study. It can be concluded that certain important clinical signs help in early diagnosis of disease in field condition. Further, the higher morbidity and mortality which causes heavy economic losses to farmers can be reduced by providing timely veterinary aids to farmers. Disease surveillance at regular intervals and mass vaccination programmes should be done to control PPR.

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