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Therapeutic Management of an Outbreak of Pasteurellosis in Sheep and Goats in Karnatka: A Case Report

G. Kavitha, P. Giridhara and S.M. Byregowda

Institute of Animal Health and Veterinary Biologicals,

Hebbal, Bangalore - 560 024.

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Corresponding author:

drkavitha85@gmail.com

Pasteurellosis caused by *Pasteurella multocida* is an acute septicaemic disease characterized by high morbidity and mortality in cattle, sheep, goat and poultry resulting in severe economic losses. Hemorrhagic septicaemia is endemic in most parts of tropical Asia, Africa, and India and causes high mortality in livestock. Cattle and buffalo are the most common hosts, but pigs, sheep, goats, deer, and camels are also susceptible to infection and disease (Blackall *et al*., 2000). Vaccination with undefined, killed vaccines is practiced in areas where the disease is endemic and has reduced the incidence of disease, but the duration of immunity is short and significant outbreaks still occur (Verma and Jaiswal, 1998) and it is widely considered that buffaloes are the more susceptible. Although outbreaks of hemorrhagic septicaemia have been reported in sheep, goats and swine, it is not a frequent or significant disease. In India, the disease normally assumes endemic character just before and during the monsoon season. Transmission occurs by the inhalation or ingestion of the infected material. The most common manifestation is pneumonic pasteurellosis which occurs in all ages. Other manifestations include septicaemic pasteurellosis in very young lambs which often occurs in association with pneumonic pasteurellosis in the same flock, systemic pasteurellosis in weaned lambs (Radostits *et al*., 2000).

History And Clinical Observations

The disease was prevailing among sheep and goats at Ganikehalu village of Bellary taluk and Bellary district, since one month. Animals were vaccinated with enterotoxaemia, PPR, haemorrhagic septicaemia and anthrax vaccine followed by administration of oral suspension of enrofloxacin as a treatment of respiratory tract infection. Deworming was also done at regular interval. Animals were exhibiting symptoms of cough, diarrhoea and death. The flock/herd was having total 890 sheep and 230 goats. 9 out of 25 diseased sheep and 2 out of 5 diseased goats were found died.

On post mortem examination, Impression smears of spleen, lung, heart blood and liver were taken and sent to Animal Disease Diagnostic Laboratory and Information Centre (ADDL & IC), Institute of Animal Health & Veterinary Biologicals (IAH & VB), Bellary for laboratory examination. Congestion of lung, liver, spleen and heart was observed . Clinical findings in the ailing animals were temperature ranging from 102-105 ^{0}F, anorexia, respiratory distress and diarrhoea in few cases. Blood, serum and faecal samples were collected from ailing animals and subjected for haematological and biochemical examination.

The faecal Samples were negative for the presence of any parasitic ova or protozoan oocyst. SGOT and SGPT values were well within

the normal range. Haematological studies revealed leucocytosis (Neutrophilia), suggestive of bacterial infection. Impression smears of spleen, lung, heart blood and liver stained with Gram's, Giemsa and Methylene Blue stains revealed Gram-negative, bipolar-staining short bacilli, which is a characteristic morphology of *Pasteurella* organisms. Clinical examination and laboratory findings were very much suggestive of pasteurellosis.

Treatment and Discussion

Ailing animals were treated with sulphonamides 0.3 ml/ kg body weight for 3 days and supportive therapy with fluids (DNS) 150 ml / animal on day 1, vitamin B-complex and liver stimulants (Belamyl®) 2 ml/kg body weight and antihistamines - chlorpheniramine maleate injection 1 ml/ animal were given. There was uneventful recovery and no further death of ailing animals occurred. Prevention and control measures such as restricted movement and segregation of ailing animals from healthy animals and immediate vaccination of healthy animals with HS vaccine were suggested.

References:

Blackall, P. J., Fegan, N., Pahoff, J. L., Storie, G. J., McIntosh, G. B., Cameron, R. D. A., O'Boyle, D., Frost, A. J., Bara, M. R., Marr, G. and Holder, J. (2000) The molecular epidemiology of four outbreaks of porcine pasteurellosis. *Vet Microbiol*. **72**:111–120.

Radostits, O.M., Gay, C.C., Blood, D.C. and Hinchcliff, K.W. (2000). Veterinary Medicine, 9th ed., Baillier Tindall, London, Philadelphia, New York.

Verma, R. and Jaiswal, T. N. (1998). Haemorrhagic septicaemia vaccines. *Vaccine*. **16**:1184–1192.

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