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### Therapeutic Management of Pasteurellosis (HS) in Goat: A Case Report

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#### Abstract

A kid aged 6 months weighing 30kg was presented in Veterinary Clinical Complex, College of Veterinary Science & A.H., Mhow, with history of dullness, depression, anorexia and difficult breathing. Clinical examination revealed high rectal temperature (104.5 °F), dyspnea, pale

mucus membrane and enlarged lymph nodes. Pasteurellosis (HS) was diagnosed based on clinical signs, symptoms and hematological examination and was treated with antibiotics and supportive therapy.

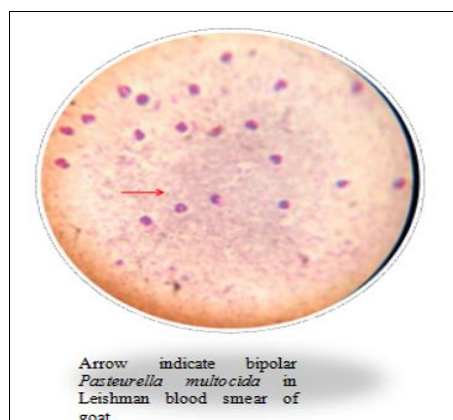
**Keywords:** Pasteurellosis, Goat, Therapeutic, Hematology

#### 1. Introduction

Pasteurellosis caused by *Pasteurella multocida* is an acute septicaemic disease characterized by high morbidity and mortality in cattle, sheep, goats and poultry resulting in high 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 (Kavitha, 2019) <sup>[4]</sup>.

In India, disease normally assumes endemic character just before and during monsoon season. Transmission occurs by inhalation or ingestion of infected material. Most common manifestation is pneumonic pasteurellosis which occurs in all ages (Radostits *et al.*, 2000) <sup>[6]</sup>.

Disease is common in farms with poor management practices and observed as a secondary bacterial infection. Diagnosis is usually based on clinical symptoms and post-mortem lesions. Confirmation is based on isolation and identification of bipolar organisms (Maria, 2007) <sup>[5]</sup>.



**Fig 1:** Blood smear showing *Pasteurella multocida*

## 2. History and clinical signs

Present communication reports pneumonic pasteurellosis in a 6-month-old goat kid. After clinical examination blood smear was prepared, stained with Leishmann stain and revealed presence of Gram negative, bipolar organism, specific character of *Pasteurella* spp. Morphological and staining characteristics with clinical presentation and therapeutic response to the treatment indicated involvement of *Pasteurella species*.

## 3. Hematology

Blood profile showed; Hemoglobin 7 g/dl., PCV 21%, Neutrophil 85%, Lymphocyte 15%, SGPT 26.52 IU/L. Haematological studies revealed leucocytosis (Neutrophilia), suggestive of bacterial infection.

## 4. Treatment and discussion

Kid was treated with Ceftiofur Sodium @ 1.1 mg/Kg body weight intramuscularly for 3 days the drug of choice for pasteurellosis, along with Inj Meloxicam @0.5mg/Kg Body wt. i.m. Antihistamines - chlorpheniramine maleate injection @ 0.5 mg/Kg Bwt. i.m. Inj Vit B-complex 1ml i.m., for 3 days and Bol. Feritas for 7 days. Treated goat kid recovered within a week and no further symptoms were recorded. Study revealed pneumonic pasteurellosis caused by *Pasteurella sp. (P.multocida or Mannheimia haemolytica)*. Infection was successfully treated using Ceftiofur Sodium with recovery of infected kid.

Ovine and caprine pneumonia is a major cause of mortality and morbidity in stressed animals usually in the age group of 3 to 6 months. Common stress factors are due to poor management, sudden change in environment (hot season to sudden and early rains). Age group of 3 to 9 M is susceptible, since it is the active growth phase and also age where farmers go for fattening of animals, as 12 M is the optimum slaughter age. Body weight of kid (30 kg at 6 M), clearly showed that it was under fattening. Intensive feeding in this age group is important stress factor and host defense capabilities are at lowest in this period. Disease is seen in all breeds of sheep and goats, in all ages and all countries. However, sheep are known to be more susceptible as compared to goats (personal experience of senior author). Disease afflicts high economic losses by way of morbidity and mortality in goatherds / sheep flocks.

About 30% of mortality in domestic animals is known to be related to pasteurella infection (Bobb 1999, Diker *et al* 2000) [1, 2]. *Pasteurella multocida* is a gram negative, coccobacillus or rod and bipolar bacteria. Ceftiofur sodium injectable is drug of choice for the treatment of goats for bacterial pneumonia. Data provided show target animal safety, effectiveness and human food safety for veterinary prescription use of ceftiofur sterile powder for reconstitution and injection in goats for treatment of bacterial pneumonia due to *Pasteurella (Mannheimia) haemolytica* and *P. multocida* (Sundlof, 2000) [7].

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