



ANAPLASMA BOVIS INFECTION IN A COW – A CASE REPORT

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Anaplasma bovis is a monocytotropic *Ehrlichia* sp. that was first described in 1936 (Donatien and Lestoquard, 1936). It has since been described in cattle and buffalo mainly from Asia, Africa and Middle East. This paper describes a case of *Anaplasma bovis* in a cow.

A cross bred Jersey cow, five years of age, was presented to the Veterinary College hospital with a complaint of anorexia and drop in milk production for the last two months. The animal had calved three months back. General clinical examination revealed rectal temperature of 102 °F, pale, slightly icteric mucous membrane, pulse 80/ min and dyspnoea. Rumen motility was normal. Peripheral lymph nodes were enlarged. The animal was dull with tick infestation.

Examination of peripheral blood smears stained with Leishman's stain revealed intracytoplasmic acidophilic inclusion bodies of various sizes in lymphocytes which represented the elementary bodies (Fig.) and morulae of *A. bovis*. Differential leucocyte count estimated

38% neutrophils, 47% lymphocytes, 14% eosinophils and 1% monocytes. Haematological examination revealed anemia (PCV 14%, Hb 6g/dl and Total Erythrocytic Count 3×10^6 /l). Ticks collected from the cow were identified as *Rhipicephalus haemaphysaloides*.

The cow was treated with inj. Oxytetracycline @ 20 mg /kg body weight as intravenous infusion in 500 ml of normal saline with a supportive treatment of Livobex 10 ml intramuscular injection and Ferritas bolus 2 BID orally for 5 days. Marked improvement was recorded in the condition of the animal after 5 days treatment.

In India *A. bovis* infection has been reported from various states (Sreekumar *et al.*, 1996, Devada *et al.*, 1996 and Vijayalakshmi and Sreekrishnan, 2005). The clinical signs noticed in the present case correlates with the earlier reports. In this case the inclusion bodies were seen mostly in lymphocytes rather than in monocytes and there was eosinophilia. Though the prevalence of *R. haemaphysaloides* have been reported from Kerala (Ghosh *et al.*, 2007), the possibility of ticks acting as vectors for *A. bovis* infection is yet to be documented from the state.

Summary

A case of *Anaplasma bovis* infection in a cow and its successful treatment with Oxytetracycline is hereby reported was reported. *A. bovis* infection has been increasingly noted in this part of the state. Further studies have to be directed towards

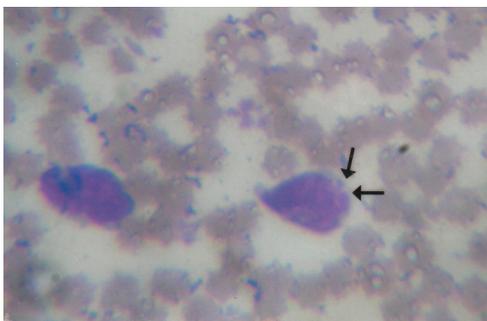


Fig. Blood smear showing acidophilic elementary bodies of *Anaplasma bovis* in a lymphocyte (Leishman's staining 1000x)

confirming the vector status of ticks in disease transmission.

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