

DIPETALONEMIASIS IN A DROMEDARY CAMEL AND ITS TREATMENT

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ABSTRACT

A 16 years old female camel was presented for treatment of dipetalonemiasis at the outdoor clinic of the Department of Clinical Sciences, Gomal College of Veterinary Sciences, Gomal University, Dera Ismail Khan. The animal was emaciated and was showing dysnea. The mucus membranes of eye and oral cavity were pale yellow and pharyngeal lymph node was swollen. Examination of blood revealed eosinophilia with a marked decrease in haemoglobin level. The camel was positive for haemoparasite *Dipetalonema evansi* and recovered following treatment with Ivermectin.

Key words: Dipetalonemiasis, clinical signs, blood picture, camel.

CASE HISTORY

A 16 years old female dromedary camel, weighing about 300 kg, was presented at the out door clinic of Department of Clinical Sciences, Gomal College of Veterinary Sciences, Gomal University, Dera Ismail Khan for the treatment of severe emaciation and dysnea. Anamnesis revealed that six days ago the owner purchased this camel and from that day she had the problem of walking and standing up the ground.

CLINICAL AND LABORATORY FINDINGS

Clinical examination revealed rectal temperature of 98°F (at 9 AM) and respiration rate of 6 per minute. The mucous membranes of the eye and the oral cavity were pale yellow. On palpation, the pharyngeal lymph node was swollen.

Samples of venous blood and feces were collected for haematological profile and gastrointestinal parasitism. The subject was positive for haemoparasite (*Dipetalonema evansi*). The diagnosis was made by examination of thick film stained by Giemsa stain. A large number of filarids were found under microscopic field including male and female. The female filarids were confirmed by the presence of vulval flaps.

Eosinophilia was the principal haematological alteration (Table 1). There was also marked decrease in hemoglobin level of the subject.

Table 1: Pretreatment haematological profile of the camel suffering from dipetalonemiasis

| Parameter | Observed values | Normal values* |
|--|-----------------|----------------|
| Total erythrocyte count (x10 ¹² /L) | 4.95 | 7.02 |
| Hb. (g/dl) | 6.60 | 10.77 |
| PCV (%) | 41.00 | 29.50 |
| ESR (mm/1 st hr) | 02.00 | 1.38 |
| Total leukocyte count (x10 ⁹ /L) | 12.45 | 10.64 |
| Neutrophils (%) | 37.00 | 42.05 |
| Eosinophils (%) | 17.00 | 8.23 |

* Source: Zia-ur-Rahman *et al.* (1994).

TREATMENT

Following treatment was instituted, starting from the day of presentation:

Inj. Ivermectin (10 mg/ml), a single dose of 6 ml was given by sub/cut route. Inj. Ami-Vi-Com (Selmore Pakistan) was given as restorative and tonic @ 20 ml/ daily for one week.

There was gradual improvement in the movement and coordination of the animal. The subject was able to stand from the ground and walk with out difficulty just after 3 days of the therapy. On 5th day of treatment, blood was taken from the animal and blood smears were stained with Giemsa stain. It was found negative for presence of any filarid.

DISCUSSION

A single subcutaneous injection of ivermectin @ 200µg/kg appears to be the treatment of choice for dipetalonemiasis in camel (Agag *et al.*, 1993; Ahmad, 1996). Ivermectin causes little discernible harm to adult parasites but seems to be effective against the developing larvae and blocks aggress of microfilariae (Awadzi *et al.*, 1985). The agent has microfilaricidal activity in brugran filariasis that may prove clinically useful (Diallo *et al.*, 1987).

Butt *et al.* (1996) and Ahmad (1996) have reported dipetalonemiasis in Pakistani camels. Muhammad and Athar (2000) have reviewed this disease alongwith toxoplasmosis and piroplasmosis in camel.

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