



ORIGINAL RESEARCH PAPER

Veterinary Science

HAEMONCHUS CONTORTUS AND TRICHURIS SPECIES INFESTATIONS IN DECCANI SHEEP: A CASE REPORT

KEY WORDS: Deccani, Haemonchus Contortus And Trichuris Worms

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ABSTRACT

An adult male Deccani sheep was presented for postmortem examination to the Department of Veterinary Pathology, College of Veterinary Science, Hyderabad. Clinically animal showed weakness, anorexia, diarrhea, subnormal temperature and death. On gross examination the animal was emaciated with rough hair coat and pale mucus membranes. Necropsy examination revealed generalized edema, pale visceral organs suggestive of anemia and edema of abomasum. Abundant *Haemonchus contortus* worms were present in abomasum and caecum showed numerous *Trichuris* worms.

1. INTRODUCTION

The alimentary canal of vertebrate represents one of the most favorable habitats for numerous helminths that cause structural and functional changes in the digestive tract (Berrilli *et al.*, 2012). The effects are varied and more pronounced in sheep and goat compared to those seen in other species of livestock (Iqbal *et al.*, 1993). The *Haemonchus contortus*, also known as the barber's pole worm, is a very common parasite and one of the most pathogenic nematodes of small ruminants. Adult worms attach to abomasal mucosa and feed on the blood. These parasites are responsible for anemia, edema and death of infected sheep and goats, mainly during summer in warm and humid climates (Burke, 2014). Each worm sucks around 0.05 mL blood per day resulting in production loss, severe anemia and even death of the animal (Urquhart *et al.*, 1987). The *Trichuris spp* worms mainly inhabit the host caecum.

In the present case, severe parasitic infection of *Haemonchus contortus* and *Trichuris spp* in a sheep has been reported.

2. MATERIALS AND METHODS

A male Deccani sheep was presented for postmortem examination to Department of Veterinary Pathology, College of Veterinary Science, Hyderabad. The animal was thoroughly examined for gross changes if any, later detailed necropsy examination was carried out and gross pathological changes were noted. The parasites from edematous abomasum and also from caecum were collected for detailed microscopic examination.

3. RESULTS AND DISCUSSION

As per the farmer the clinical history revealed weakness, anorexia, diarrhea, subnormal temperature and death. On gross examination the animal was emaciated with marked paleness of all visible mucous membranes, is suggestive of anemia due to the blood sucking parasites (Fig. 1) and soiled hair (Fig. 2) at rectum region is suggestive of severe diarrhea. Upon necropsy examination, animal showed pale visceral organs and generalized edema (Fig. 3). The adult *Haemonchus contortus* worms would have been fed on the host blood leading to severe anemia and hypoproteinemia which resulted in edema.

The lungs were pale and emphysematous. Trachea showed frothy exudates (Fig. 4). Mild organomegaly (liver and

kidneys) with congestion and petechial hemorrhages. Abomasum of the sheep showed large number of *Haemonchus spp* attached to the mucosa and some were mixed in the ingesta. The mucosa of abomasum was thickened and congested (Fig. 5). Rinaldi *et al.* (2011) suggested that over secretion of mucus in the parasitized abomasum may be due to host reaction against parasite for their defense, as it has been reported that mucous layer acts as a physical barrier for microorganisms, parasites and their toxins. The caecum was filled with numerous white slender *Trichuris* worms and the caecal mucosa was thickened with several hemorrhages (Fig. 6). The larvae penetrates mucosa of caecum and colon leading to typhlitis and colitis. Similar results were also published by Tehrani *et al.* (2012) and Dutta *et al.* (2017).

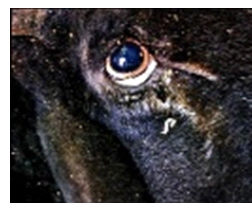


Fig.1: Pale ocular mucus membrane



Fig.2: Profuse diarrhea causing soiled hair



Fig.3: Pale visceral organs



Fig.4: Pale and consolidated lungs with frothy exudates in trachea



Fig.5: *Haemonchus spp* worms in the abomasum. Congested and thickened abomasum



Fig.6: *Trichuris* worms in the caecum. Congested caecal mucosa

4. CONCLUSION

In conclusion, the present case study indicated that the animal was suffering with severe parasitic infection leading to anemia and hypoproteinemia resulted in death of the animal. A judicious administration of suitable antihelminthic drugs in an appropriate time after confirmation of the parasitic burden through fecal examination of dung will help the farmer to control the economic losses.

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