The Asian Journal of Animal Science (June, 2010), Vol. 5 Issue 1 : (85-86)

RESEARCH PAPER

Therapeutic management of helminthic infection in goats

VED PRAKASH, SIDDIQUA BANO, M.P.S. YADAV AND S.P. SINGH

Accepted : May, 2010

See end of the article for authors' affiliations

VED PRAKASH

Department of Animal Husbandry and Dairying, C.S. Azad University of Agriculture and Technology, KANPUR (U.P.) INDIA

ABSTRACT

Administration og ivermectin injection @ 0.2 mg/kg b.wt. S/c and doramectin injection @ 0.2 mg/kg b.wt. cured the naturally infected goats with helminth parasites *viz*. trematade, cestode, nematode worms showing clinical symptoms such as weakness anaemia, rough body coat, wool falling, reduce milk, diarrhoea and emaciation etc. Comparative efficacy of drugs was based on the number of days taken for clinico-parasitological cure and the mean reduction EPG of faeces. During the experiment, ivermectin and doramectin were found to cure helminth parasites in goats due to 100% mean reduction EPG on second week of treatment. No adverse effect such as gastric irritation and photosentization were observed during the study period in any of the goats. The therapeutic management indicates that a single dose of ivermectin or doramectin both @ 0.2 mg/kg b.wt. S/c is equally effective against commonly occurring helminth parasites in goats.

Key words : Helminth parasite, Goat, Therapeutic management, Ivermectin and doramectin

Helminth parasites adversely affect the health of the animals in all parts of the world, even in the most highly developed countries. No doubt we have invented many new chemical weapons against these parasites but they have also adopted new defence and they seem able to work faster than our chemists. So, a large number of animals die every year due to parasitic worms which cause the great economic loss of the nation. No doubt the several methods have been adopted to control the helminth parasites infection in livestock. Out of these, chemotherapy is the most practical approach (Roos, 1997). However, there was a great need for the present study to produce more effective control over the helminthic infection with avermectin (include ivermectin and doramectin a broad spectrum anthelminthic injectable form subeutaneous) drugs.

MATERIALS AND METHODS

Goat flock of local bred aged between 1-5 years, tamed by the individual farmers within the area of Kalyanpur,Kanpur were examined for helminth parasites. Faecal samples (70) were collected directed from the rectum of each goat in vessels for screening helminthic infection using Mc master egg counting technique (Kelly, 1974). The faecal samples were examined by direct smear, sedimentation technique and zinc sulphate floatation technique for the presence of fluke and worms eggs as per the standard procedure described by Sastry (2000). The eggs were morphologically identified as per the key of Soulsby (1982). Goats were selected further for trial based on the faecal egg count per gram (EPG) of faces and randomly divided into 3 groups A, B and C of three goats each. Group A goats were treated with ivermectin injection @ 0.2 mg/kg b.wt. through subcutaneous route. Goats of group B received doramectin injection as per the dose and route mentioned for ivermectin. Group C goats were kept as per untreated control. Supportive therapy with electrolytes drip and live extract with Vitamin B complex intramusculary was also given to the goats of all the groups for 3 days. To assess the efficacy of drugs, the faecal samples of each goat were re-examined with the same methods stated above on first and second week of treatment with respected to reduction of eggs using the formula described by Wirthere *et al.* (2004):

FECT (%) = (FECbt-FECat) x 100/FECbt

where, FECR (%) denotes per cent faecal egg count reduction. FECbt and FECat, stand for egg count before and after treatment, respective.

RESULTS AND DISCUSSION

Among 70 goats, 12 were positive for helminth parasites with an overall 17.14% prevalence rate. Some of the goats were positive for mixed helminth parasites viz., trematode, cestode and nematode worms showing clinical symptoms such as weakness, anaemia, rough body coat, wool falling, reduce milk and diarrhea etc. maximum infection level was 300 g eggs per gram of faeces. On day zero, mean faecal egge counts were almost uniform