

RESEARCH PAPER

## Prevalence and chemotherapy of monieziosis in goats

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Accepted : April, 2010

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### ABSTRACT

The prevalence of monieziosis due to *Moniezia expansa* in goats in Kanpur region of Uttar Pradesh, was studied during February 2008 to January 2009. A total 120 faecal samples from live goats and 120 intestines from slaughtered goats were examined, out of which 14 (11.66%) faecal samples and 10 (8.33%) intestine were found positive for *Moniezia expansa*. Prevalence of infection was found to be higher during the rainy season both in live (16.66%) and slaughtered (13.33%) goats while lowest in winter season being 6.66% and 3.33%, respectively. Multiple enteritis of varying sizes were observed throughout the intestine of goats due to the presence of the scalices of the parasites, deeply embedded in the mucosa of the intestine. The results of therapeutic trials by using drugs droncit and curamint indicated 94.89% and 91.57% effective, respectively to cure monieziosis in goats without producing any side effect.

Key words : Prevalence, *Moniezia expansa*, Chemotherapy, Droncit and curamint

Among the helminth parasites of goats, *Moniezia expansa* is one of the most widely distributed cestode parasites of ungulates and is encountered in every parts of the world (Nama, 1990). It inhabits in the small and large intestines and exerts greater economic losses in tropical and temperate countries. It causes intestinal abstraction, perforation, perineal abscess, hepatic abscess, cholecystitis and appendicitis. Chronically monieziosis is characterized by progressive weakness, anaemic condition, reduce milk and meat production. This form is most common where mortality is low but morbidity may reach high and animals become very weak and emaciated. However, heavy parasitic load may cause death. Keeping in view the importance of monieziosis, the present study was conducted to determine the prevalence of infection in an efficient manner under local climatic conditions and thus to treat the affected animals with droncit and curamint at their recommended dose rate and evaluate the efficacy of drugs against monieziosis in goats.

### MATERIALS AND METHODS

To record the prevalence of infection and severity of infection caused by *Moniezia expansa*, a slaughter house survey was carried out by visiting the local abattoir of Bazaria, Kanpur city during the period from Feb. 2008 to Jan. 2009. Total 120 faecal samples from live goats and 120 intestine from slaughter goats were collected randomly from the local abattoir and slaughter house, Bazaria, Kanpur city and were examined minutely in the laboratory and processes for eggs and worm recovery. Seasonal prevalence was studied throughout the year

dividing into four seasons, spring (Feb. to April), summer (May to July), rainy (Aug. to Oct.) and winter (Nov. to Jan.).

Parasitological techniques: Parasite recovered from infected intestine was morphologically identified as per the key of Soulsby (1982). The faecal samples were examined by direct smear sedimentation technique and zinc sulphate floatation technique for the presence of egg as per the standard procedure described by Sastry (2000). Counting of eggs was done by Mc. Master eggs counting technique (Kelly, 1974).

Chemotherapeutic trials: Among the positive goats, 9 goats were selected and randomly divided into three groups (A, B and C) of three goats each. Droncit @ 10 kg body weight and curamint @ 10 kg body weight were given in all goats of group A and B once a day through orally for 3 consecutive days. While the goats of group C were kept as untreated control. Faecal samples from each goat were reexamined on 14<sup>th</sup> day of post-treatment. Efficacy of both drugs was calculated using the formula described by Wirtherle *et al.* (2004):

$$\text{FECR}(\%) = (\text{FEbt} - \text{FECat}) \times 100 / \text{FECbt}$$

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

### RESULTS AND DISCUSSION

A total 120 faecal samples from live goats and 120 intestines from slaughtered goats were examined, out of which a total 14 (11.66%) faecal samples and 10 (8.33%)