



AMPHISTOMOSIS- AN UNNOTICEABLE THREAT

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INTRODUCTION

Livestock sector has an important role in the socio-economic status of the large rural population of India. Topography and climatic condition of Kerala are most favorable for the survival of parasitic fauna. Helminthic infections that account for a major part of the diseases in domestic animals have been found to be a vital blow to bovine production. Among the diseases due to gastro intestinal helminth parasites, amphistomosis is now regarded as of great economic importance. An investigation was carried out to find out the economic impact of amphistomosis on production in cattle, of Quilandy municipality area of Kozhikode district.

METHODOLOGY

The study was carried out at Quilandy for a period of thirty days. Clinically reported cases of seventy six milch animals which were led to graze in paddy fields or marshy areas with the prominent clinical signs fetid diarrhea, anestrus, weakness with anemia and sub-mandibular edema were taken for the study. Detailed history was collected from the clients about the symptoms and it's after effects with due importance to the economic aspects. The prevalence of amphistomosis was detected by screening the fecal samples for amphistome ova using direct and concentration methods. From the above clinical symptoms exhibited by the animals, fetid diarrhea made severe economic loss as it lowered milk yield. The economic impact was estimated based on the financial losses occurred due to reduced milk yield.

RESULTS AND DISCUSSION

Table 2. Clinical signs showed by animals that were positive for amphistomosis.

Sl. No.	Clinical signs	No. of cases
1	Fetid diarrhea	28
2	Anestrus	12
3	General weakness with anemia	5
4	Sub mandibular edema	3
	Total	48

Amphistomosis is a gastro intestinal parasitic disease. Clinical signs are noticed in immature amphistomosis. This is because helminthic parasites adversely affect the absorption and utilization of proteins, minerals and vitamins as well as upset the general metabolism of the host by causing diarrhea, anemia, and liver disorders (Anand *et al.*, 2000). Seventy six samples were screened for amphistomosis and 63% of it was found to be infected with amphistomosis, out of which 28 cases showed fetid diarrhea with decreased milk yield as prominent clinical sign. Even though other clinical signs were prominent, fetid diarrhea made severe economic loss as it lowered milk yield.

The quantity of milk loss in liters and the approximate period for the recovery of the condition to normal were taken into consideration. It was found that those animals that showed a production loss of up to 1, 2 and 3 liters of milk per day took at least 3, 4 and 5 days respectively to recover from the condition after treatment. The treatment charges were not taken into consideration as it was absolutely free at veterinary

Table 1. Prevalence of amphistomosis among cattle in Quilandy Municipality area.

Sl.No.	No. of fecal samples examined	No. of positive samples	Percentage
1	76	48	63

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**Table 3. Production loss due to amphistomosis in cattle**

Sl. No.	Milk Production loss	Recovery period in days	Number of cases reported	Milk loss during disease period (in Liters)	* Loss in rupees (as per society)	** Loss in rupees (as per market)
1	Upto 1 liter per day	3	10	30	570	750
2	Upto 2 liters per day	4	12	96	1824	2400
3	Upto 3 liters per day	5	6	90	1710	2250
	Total		28	216	4104	5400

(Loss in milk is mainly due to fetid diarrhea with decreased milk yield)

* Minimum price of one liter of milk as per society Rs. 19/-

* Market price for one liter of milk- Rs. 25/

hospital. A loss of 216 litres of milk from 28 cattle was noticed. The economic loss for a short period of one month can be estimated in two ways considering the place where the farmers sell the milk. It was calculated that there was a loss of Rs. 4104/- (at a minimum rate of Rs. 19/- per liter of milk) if the milk was sold in societies. Or else, a minimum loss of Rs. 5400/- was calculated if the milk was sold in local market with the current market milk price of Rs. 25/-. If other clinical symptoms especially anestrus were also be able to consider, then the economic loss could be even more. Since, routine deworming was not done by the farmers, prevalence of amphistomosis was high. This condition can be prevented only by educating dairy farmers about the managerial aspects of preventing amphistomosis especially timely deworming. This pilot study highlights the economic importance of amphistomosis

and recommends further studies in the area as the incidence of amphistomosis was high in Kerala.

SUMMARY

Amphistomosis is an unnoticeable treat to the livestock sector of Kerala with high economic impact. As the economic loss due to amphistomosis from 28 cattle was estimated to be around Rs. 4104-5400, it could be enormous when considering the total livestock population of Kerala. So, further intensive studies are recommended in this area.

ACKNOWLEDGEMENT

1) Senior Veterinary Surgeon, Veterinary Hospital, Quilandy, 2) Dr. Lucy Sabu, Professor, KVASU 3) Dr. T.S. Rajeev, Assistant Professor, KVASU

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