

A case report of *Gastrothylax crumenifer* incidence in sheep in Kashmir Valley

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(Received November 28, 2012; Accepted March 31, 2013)

Abstract

A total of 655 sheep were examined during 2008 to establish seasonal infection caused by *Gastrothylax Crumenifer*. The sheep were chosen from different areas of Kashmir valley, but the parasite *G. Crumenifer* was found throughout the year with prevalence 49%. Prevalence increased in the rainy and post-monsoon seasons and decreased slightly in winter and summer.

Keywords: Paramphistomum; Prevalence; Rumen; Sheep.

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تقرير حالة عن نسبة حدوث طفيلي *Gastrothylax Crumenifer* في الأغنام في وادي كشمير

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الخلاصة

تم فحص ٦٥٥ رأساً من الأغنام خلال ٢٠٠٨ لتثبيت نسبة انتشار طفيلي *Gastrothylax Crumenifer* في وادي كشمير، وقد وجد الطفيلي خلال أشهر السنة ونسبة ٤٩%. وازداد الخمج في الأشهر الممطرة وانخفضت قليلاً في الشتاء والصيف.

Paramphistomes are commonly occurring trematodes infecting various domestic ruminants in India (1). The illness is distributed all around the world, but its highest frequency has been registered in tropical and subtropical regions. The harm caused by this infection in sheep affects production. Since these parasites provoke a lower nutritious conversion, a loss of weight and or a decrease in milk production, with subsequent economic losses occur in India and other countries with mortality up to 90% in sheep and cattle (2). We report here the prevalence of infection with *G. Crumenifer* in sheep in Kashmir Valley.

Adult paramphistomes were collected from rumen of 655 sheep slaughtered at abattoirs during different seasons from January to December 2008; parasites were pressed, stained and permanent-mount slides were made for morphological study and identification. (2).

The infection percentage of sheep with *G. Crumenifer* varied from month to month and peak infection was in April (65.9%) but the infection of the paramphistomiasis was present throughout the year (Table 1). Adult parasites were found predominantly in the esophageal end, reticular end and papillae of the rumen. Immature parasites were predominant in dorsal, ventral sacs of the rumen and duodenum.

The overall infection rate of sheep was 49% throughout year. The reason for the variations may be that harvesting of crops started from the middle of October onwards and water recedes from low lying areas. Animals start to graze in the swampy areas where the grasses and weeds may be harboring large number of metacercariae resulting in higher rate of infection. Nath (3) reported maximum infection of paramphistomes are found from September to March in U.P. This is fact that climatic conditions from September to

March in U.P. are similar to that of Kashmir during spring, and the regulation of worm burden is correlated with the seasonal climatic conditions.

Table 1: Prevalence of *G. crumenifer* in sheep in Kashmir Vally from Jan. 2008 to Dec. 2008.

Month	Examined host	<i>G. crumenifer</i> collected	% Infection
January	50	80	59.2
February	60	200	58.8
March	50	200	54.7
April	55	300	65.9
May	55	180	37.7
June	60	80	50.9
July	60	90	51.4
August	50	80	57.1
September	35	40	40.0
October	60	150	25.4
November	70	120	27.0
December	50	235	60.8

Szmidt-Adjide et al. (4) reported the highest prevalence of paramphistomes in springs. The present report is similar to that of Talukdar (5), the overall % age in full phase of infection was highest (35.34) in summer and lowest (13.95) in winter. From the results reported here, it seems that sheep in Kashmir Valley can be treated with anthelmintics against paramphistomiasis at least twice in per year, April (peak infection) and in December when sheep turned off from the fields.

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