



STUDIES ON SEASONAL DYNAMICS OF MAMMALIAN CESTODE *MONIEZIA* SP. FROM *OVIS BHARAL*

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ABSTRACT

Present investigation deals with the occurrence and seasonal dynamics of cestode, *Moniezia sp.* from the intestine of *Ovis bharal*, at different collection sites of Parbhani district (M.S.) India during June 2021 to May 2022. The high incidence of infection of *Moniezia*, sp. was recorded in Monsoon season (66.66%) followed by winter season (47.91%) whereas infection was low in Summer season (25.00%) respectively.

Key words: Cestode, *Ovis bharal*, *Moniezia sp.*, Seasonal dynamics.

INTRODUCTION

Several reports on prevalence of parasites in desi fowl have been reported from different parts of world, it is still necessary to carry out epidemiological studies in other parts of country in view of the changing dynamics of parasitic infections and to follow appropriate control measures. However, detailed reports on prevalence of gastrointestinal parasites in desi fowl of this region could not be found in the available literature except for few studies. Hence, a study was undertaken to find out the incidence of Cestode parasites of domestic sheep *Ovis bharal* of Nanded District for a period of one year.

The present investigation deals with the study of incidence of Cestode parasites of *Ovis bharal* of Parbhani District.

MATERIALS AND METHODS

Present investigation deals with the occurrence and seasonal dynamics of Cestode from the intestine of *Ovis bharal*, at different collection sites of Parbhani district (M.S.) India during June 2021 to May 2022. In the present study 180 intestine of *Ovis bharal* were examined for Cestode infection. Out of 144 intestine of sheep, 67 (46.52%) were positive with Cestode infection. Collected Cestodes were preserved in hot 4% formalin, stained with Borax carmine, dehydrated in ascending grades of alcohol, cleared in xylene, mounted in D.P.X. These Cestodes were identified by standard methods. On taxonomic observations the Cestodes are identified as *Moniezia sp.*. Obtained data were recorded; processed for study of seasonal variation.

RESULTS AND DISCUSSION

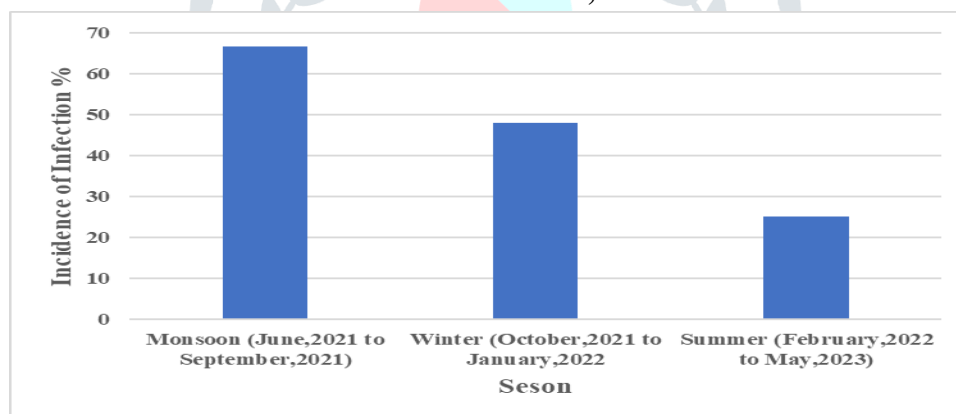
A study was carried out to know the Seasonal incidence of gastrointestinal Cestodes in domestic sheep *Ovis bharal* from different collection sites of Parbhani for a period of one year. Results of present studies on incidence of infection of cestode, *Moniezia sp.* from *Ovis bharal* are presented in Table No. 01 & Graph 1. The high incidence of infection of *Moniezia*, sp. was recorded in Monsoon season (66.66%) followed by winter season (47.91%)

whereas infection was low in Summer season (25.00%) respectively. According to Kennedy C.R. (1976) in his report stated that temperature; humidity, rainfall, feeding habits of host, availability of infective host and parasite maturation are responsible for influencing the parasitic infections.

Table 1: Seasonal Incidence of *Moniezia* Sp. from *Ovis bharal* during June, 2021- May, 2022 from Different Parts of Parbhani District, M.S.India.

Name of Season & Months	No. of the host Examined	No. of the host Infected	Total No. parasites collected	Incidence %
Monsoon (June,2021 to September,2021)	48	32	43	66.66
Winter (October,2021 to January,2022)	48	23	29	47.91
Summer (February,2022 to May,2023)	48	12	16	25.00
Total	144	67	88	46.52

Graph 1- Seasonal Incidence of *Moniezia* Sp. from *Ovis bharal* during June, 2021- May, 2022 from Different Parts of Parbhani District, M.S.India.



Results of present investigation are in agreement with Bhure et.al.,2017 reported prevalence of Cestode *Avitellina* sp. Has high in Monsoon season (77.50 %) followed by winter season (62.85%) whereas infection was low in summer season (32.50%). The seasonal occurrence of parasitic infection in goat depicted higher infection of helminthes in rainy season followed by winter than in summer. This is in accordance with findings of other researchers (Yadav, et al., 2006). Varadharajan and Vijayalakshmi, 2015 reported overall infection percentage was higher in rainy season (68.36%) followed by winter (60.84%) than in summer (55.30%).

Analyzed of present study shows high Prevalence in Monsoon followed by winter where as low in Summer due to environmental factors and feeding habitat influence the seasonality of parasitic infection either directly or indirectly. This study on prevalence of gastrointestinal parasites in sheep *Ovis bharal* facilitates to device new ways and methodologies to follow the appropriate chemo-immunoprophylactic strategies as one of the control measures.

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