

Studies on the cestode *stilesia* railliet, 1893 intestinal infection in *Capra hircus* L. with reference to histopathology

SANJAY SHAMRAO NANWARE AND DHANRAJ BALBHIM BHURE

P.G. Department of Zoology, Yeshwant Mahavidyalaya, NANDED (M.S.) INDIA

Email : snanware@rediffmail.com; drajbhure82@gmail.com

The present work was carried out to study the histopathological changes in the intestine of *Capra hircus*, naturally infected with the Anoplocephalidean cestode, *Stilesia pandeyae*. It has been seen that the cestode *Stilesia pandeyae* approach the villi floating in the lumen, some worms are seen attached to the tissues of the intestine, the villi of crypts of lieberkuhn are ruptured, destructed and shifted apart by the penetrating the worm. Not much effort is put by the parasite to survive in the intestine and the scolex is not so much helpful. It seems that the environment of the intestine is quite favourable for the worm *Stilesia* Railliet, 1893 which is rich in protein, glucose and fat content. So the worm finds it easy to absorb the same through tegument for growth and nourishment.

Key words : Cestode, *Capra hircus* L., Histopathological observation, *Stilesia pandeyae*

How to cite this paper : Nanware, Sanjay Shamrao and Bhure, Dhanraj Balbhim (2013). Studies on the cestode *stilesia* railliet, 1893 intestinal infection in *Capra hircus* L. with reference to histopathology. *Asian J. Bio. Sci.*, 8 (1) : 76-78.

INTRODUCTION

In host parasite relationship, host provides a suitable environment to parasite and in turn parasite either directly or indirectly injures host and also deprives host getting required nutritional requirements. Cestodes are said to absorb semi digested material from the intestine and it has been assumed that these worms lie in a both of semi digested 'soup' from which they can absorb nutrient, metabolism and *in vitro* studies suggest that a complex nutritional relationship occurs between cestode and its host. The parasite establishes itself in host body which cause pathogenicity and this many lead to a condition which exist in the host, specially are due to influence of parasites on host. Host parasites relationship results in gain of one organism and loss of another. It leads to various diseases and disorders. The present communication deals with the study of histopathology of Anoplocephallidean cestode *Stilesia pandeyae* intestinal tapeworm of host *Capra hircus* L.

RESEARCH METHODOLOGY

To record the rate of infection and histopathological study, intestines of *Capra hircus* L. were dissected to observe the rate of infection. Nearly all the dissected intestines were

heavily infected with cestode parasites. The worms almost blocked the passage of food material in the intestines. The free worms were separated and identified as *Stilesia pandeyae*. Both infected and normal hosts intestine were dissected and fixed in Bouin's fluid to study histopathological changes.

The fixed materials from Bouins fluid were removed, washed, dehydrated through alcoholic grades, cleared in xylene and embedded in paraffin wax (58-62°C). The sections were taken at 9μ and slides were stained with aldehyde fuchsin, bromophenol blue, eosin Ehrlich's Haematoxylin and Sudan Black-B for the detection of histopathological changes. Best slides or sections were selected and keenly observed under the microscope for histopathological study. The parasites were seen both in a free state in the lumen and also in attached condition.

RESEARCH FINDINGS AND ANALYSIS

Genus *Stilesia* was erected by Railliet (1893) for *Taenia globipunctata*, Rivolta, 1874. The present communication deals with histopathological changes in intestine of *Capra hircus* L. infected with *Stilesia pandeyae* by examining the stained serial sections of the tissue. It has been seen that amongst the worms approaching the villi floating in the lumen, some worms get attached to the tissues of the intestine, the