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RESEARCH ARTICLE

Studies on biochemical profile of piscian tapeworm, *Tylocephalum*

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ABSTRACT : Some biochemical parameters *i.e.* Carbohydrates, proteins and lipids were estimated in normal, infected intestine and their relevant parasite *Tylocephalum shindei* Pawar and Jadhav, (2005). The non-infected intestine contains more glycogen, protein and lipids as compared to infected intestine. The intestinal parasites *Tylocephalum shindei* Pawar and Jadhav, (2005) were capable of extracting nutritious materials from their host and thus represented a high level in glycogen, protein and lipid.

Key words *:* Biochemical parameter, *Trygon sephen, Tylocephalum shindei*

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INTRODUCTION

Carbohydrates are chief energy source in all parasites. Proteins are the most abundant organic molecules in cells constituting 50 per cent or more of their dry body weight. They are found in every part of every cell. The main significance of the proteins is their role in structural make up of the body rather than in the yield of the energy. Lipids are of great importance to the body of cestodes as the chief concentrated storage form of energy, besides their role in cellular structure and various other biochemical functions. T*ylocephalum* is an intestinal tapeworm of *Trygon sephen* and has a serious impact on health productivity and quality of life, in addition gastro-intestinal disorders and lack of vital nutrients. In that way of find out the biochemical parameters in infected and non-infected intestine of *Trygon sephen* and tapeworm, *Tylocephalum shindei* Pawar and Jadhav, (2005).

RESEARCH METHODS

Twenty five intestine of *Trygon sephen* were examined for tapeworm infection. The tapeworms were removed, identical parasites were sorted out with the help of microscope, preserved, stained with Haematoxylin and morphological observations turned out to be the *Tylocephalum shindei* Pawar and Jadhav, (2005).

The collected normal, infected intestine and parasites were cut in small pieces and kept on blotting paper to remove excess amount of water. The material transferred in previously weighed watch glass and weight on sensitive balance. The wet weight of tissues were taken and kept into oven at 60^0 C for 24 hours to make the material dry. The dry weight of material was taken and the prepared powder was used for estimation of glycogen, protein and lipids.

– Glycogen was estimated by Kemp *et al.,* method (1954).
– Protein was estimated by Gornall *et al.*, method (1949).
– The lipid content in cestode parasites and host intestines was estimated by Folch *et al.* (1957) method.

RESEARCH FINDINGS AND ANALYSIS

The glycogen, protein and lipid contents in the infected, non-infected intestine of *Trygon sephen* and intestinal tapeworm, *Tylocephalum shindei* Pawar and Jadhav, 2005 are presented in Table 1.

The glycogen contents in the normal intestine was 93.25 mg/100 mg and in infected intestine contents 91.02 mg / 100 mg where as in *Tylocephalum shindei* Pawar and Jadhav (2005) its content was 88.28 mg / 100 mg (Table 1).

The protein contents in the non-infected intestine was 30.12 mg/mg wet weight of tissue and infected intestine contents 27.72 mg/mg wet tissue where as the tapeworm, *Tylocephalum shindei* Pawar, 2005 25.01 mg/mg wet tissue.

The lipids contents were low in the worm as