

A NEW LARVAL TERMATODES FROM KADAWA RIVER NASHIK DISTRICT (M.S) INDIA

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ABSTRACT:

Nashik district has many fresh water streams few rivers and earthen dams like kadwa, chanakapur, Girna , Mosam, Bhegu, Dhanoli, etc. Many species of gastropod mollusca are found to inhabit the fresh water of this rivers and dams Among them many species genus melania tuberculata ,Lymena Lutolous and viviparous banglensis , occurs which shows infections of larval trematodes parasites in their hepatopancreas and gonads. Hence it was thought worth while to examine these species of snails for infection of trematodes parasites.

KEY WORDS – Larval trematodes, Parasite, Fresh water snails, New species.

INTRODUCTION :

The digenic trematodes comprise the larval group of platyhelminthes during life cycle the fluke whilse two, three or more host ,one being definitive host and remaining intermediate host. In the intermediate host which is invariably a gastropod ,the infection of the larval trematodes is in hepatopancreas gonads. Many species of molluscs inhabits in the water , streams and reservoirs in Nashik district . hence it was thought worthwhile to study the larval trematodes of molluscan host of these streams and reservoirs.

The information of the snails in and around kadwa river and the cercariae they harbor is carried out in the present study. The earlier work on the snails and cercariae of Nashik region was carried out by Karyakarte and Yadav(1974-1979) and similarly on other snails by Gorbushin and Levakin(1999) Naincova et al(1993), Fastny et. al(1996), Huelsenback and Ronquist(2001), Bayssade et al(2002), Jonson and Clayton(2003), Criscione and Blouin(2004) and Pough et al.(2005) the work carried out by Karyakarte and Yadav(1979) on “Control of Molluscan Agents of Helminth Parasites of Agricultural and Veterinary importance.

Larval trematode cercaria kadwaria is reported which is considered new to science figure-1 represents a composite recontriction of the cercaria based on observation of Numerous specimens.

MATERIAL AND METHOD:

The present cercaria was collected from the hepatopancreas and gonads of the snails host viviparous bengalensis. The snails were collected from kadava river at pimplegaon (B),nashik District. The snails showed infection from October to March.

RESULT AND DISCUSSION:

The cercaria is oval in shape. The body surface is smooth .The body surface is smooth. The eye spots are absent. It moves with contraction and extension of the body. It also shows creeping movements. The movements of the tails are quite vigorous. The minute cytogenous gland cell. (5 to 8 on each side) are restricted in the shoulder region of the body.

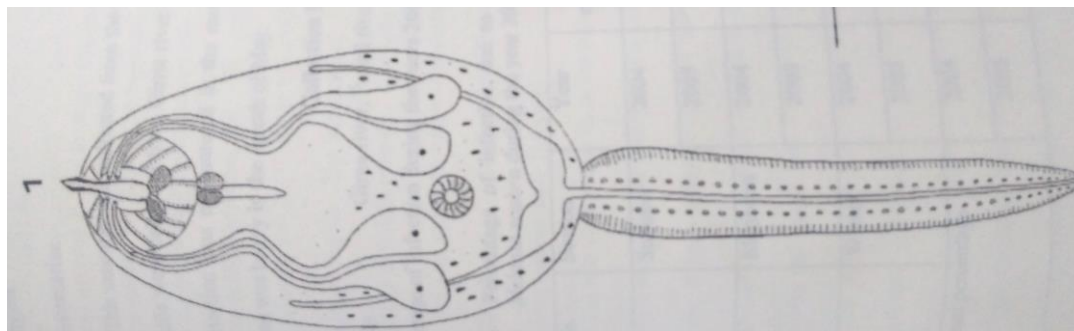
The length of cercaria is 0.20 (0.18 to 0.22) including the tail. The main body measures 0.12(0.11 to 0.13) in length and 0.054 (0.044 to 0.064) in width. The tail is 0.10 (0.08 to 0.12) long and 0.016 (0.015 to 0.017) wide. It is annulated and pointed at the end . Parenchymatous cells are observed in the tails. The oral sucker is ventral in position and rounded in shape with a diameter of 0.024 (0.024 to 0.030). It is bigger than acetabulum. The stylet is pointed at the anterior end and measures 0.015 (0.015 to 0.017) in the length and 0.004 in breadth . the ventral sucker is oval in breadth. The ventral sucker is oval in breadth. The ventral sucker is oval in the shape and located in the posterior half of body . It measures 0.018 by 0.022 (0.017 to 0.019) by 0.020 to 0.024 in dimensions. The mouth is ventral in positions and leads into pharynx. There is no oesophagus and intestinal caeca. There are two pairs of salivary glands contined in the preacetabular region. The salivary glands cell are small, nucleated and irregular in shape. The excretory cornuae reach upto or slightly posterior margin of the pharynx. The caudal excretory ducts opens at the tip of the tail.

SPOROCCYST - The oval in shape . The immature sporocyst is in the form of rounded structure considering of numerous germ balls. The mature sporocyst of 0.025 (0.21 to 0.31) in length and 0.16 (0.14 to 0.18) in width. In sporocyst 6 to 7 developing cercariae are observed at a time.

In cellulose group the following cercaria are reported so far from india. Carcaria indicae LV sewell 1922 ,cercaria nakurichiensis malaki and singh 1962, indicae LVII redescibed by Gautam, 1982 and cercaria disc forma Gautam 1982. Amongst the species reported in this group the present form differs from all the knowns species except cercariae indicae LVII swell 1922. The common character in the two species are the general shape of the body . length of the body and tail size of suckers and development in sporocyst. However the present form differs in several specific characters .

Distinguishing charactors between corarnia indicae. LV II sewell 1922(Orginal and redescription) and the present form .

| Sr.No. | Character | Carcariae indicae LV II sewell 1922 | C.indicae LV II (cswell II 1922) redescribed by gautam 1982 | Present form |
|--------|---------------|--|--|---------------|
| 1 | Oral sucker | Rounded 0-0 25 | Oval 0.03.0.on | Rounded 0.028 |
| 2 | Stylet length | 0.012 | 0.030 | 0.027 |



It is clear from the table that the characters such as salivary glands, cystogenous glands, of limited excretory bladder and position acetabulum clearly warrant for the creation of new species, *Cercaria kadwaria* n.sp. is the name proposed for the present form.

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