



**REDESCRIPTION OF RAILLIETINA (RAILLIETINA) TETRAGONA MOLIN,1958
(EUCESTODA:DAVAINEIDAE) FROM CORVUC CORVUS AT RAMLING (M.S. INDIA)**

Menkudle D. V.
Adarsh college, Omerga Dist. Osmanabad , (M.S.)

ABSTRACT

The present worm *Raillietina (Raillietina) tetragona* Molin,1958 is having many closely resembling characters except few known as additional characters as in the breadth of the worm ,number of rows of the spines on sucker margin 5-6, the number of rostellar hooks (93), number of testes, shape of cirrus pouch, structure of genital atrium.

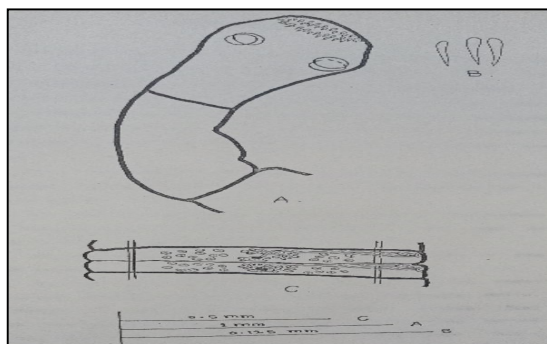
KEY WORDS: *Raillietina (Raillietina) tetragona* Molin,1958, *Corvus corvus*, rostellar hooks, genital pore etc.

INTRODUCTION

The genus *Raillietina* was erected by Furmann, 1920 and the subgenus *Raillietina (Raillietina)* Furmann, 1920 as a type species. The present worm *Raillietina (Raillietina) tetragona* was erected by Molin in 1958 from fowl is redescribed here.

MATERIAL AND METHODS

Eighteen specimens of the cestode parasites were collected from intestine of *Corvus corvus* at Ramling Dist. Osmanabad M.S. India.. All the worms were long, flattened, with thick musculature, buff coloured, with scolex, numerous immature, mature segments. For the taxonomic study the host was carried out regularly in each annual cycle. The host was dissected in mid ventral line, various organs of the viscera i.e. stomach and intestine,the intestine kept in separate Petri dish containing normal saline. These organs teased with needles and observed under microscope. The worms were flattened and preserved in 4 % formalin, stained with Harris haematoxyline, passed through various alcoholic grades, cleared in xylol, mounted in D.P.X. whole mount slides were prepared for further anatomical studies and drawings were made with camera lucida and all measurements in millimeters.



DESCRIPTION

All the worms were long, with thick musculature and buff coloured. The scolex is small in size, oval shaped in appearance, broad anteriorly and narrow posteriorly and measures 0.422- 0.476 in length and 0.170-0.290 in breadth. The scolex bears four suckers, which are small in size oval in shape, arranged in two pairs, in each lateral half of the scolex, obliquely placed, numerous spines are present on the sucker margins, suckers overlapping on each other and measures 0.194-0.228 in length and

0.067- 0.063 in breadth. The rostellum is medium, oval, armed with double circle of hooks, slightly broad anteriorly, narrow posteriorly and measures 0.340-0.413 in length and 0.072-0.180 in breadth. The rostellar hooks are small in size, in a single circle 90-100- (93) in numbers, single pronged, broad at the base narrow at the apex and measures 0.015- 0.030 in length and 0.001-0.006 in breadth. The neck is of medium in length and width, curved slightly narrow anteriorly and broad posteriorly and measures 0.058-0.124 in length and 0.170-0.218 in breadth. The mature segments are small in size, very thin, broader than long, almost nine times broader than long without projections, at the anterior and posterior corners of the segments, and measures 1.372- 1.451 in length and 0.124-0.181 in breadth. The testes are small a size, oval in shape, situated at both the lateral field of overy bounded laterally by the longitudinal excretory canals, 15-20 (17) in numbers and measures 0.058-0.123 in length and 0.034-0.045 in breadth. The cirrus pouch is small in size , oval in shape, obliquely placed, anteriorly directed, almost in the anterior region of the segments, not reaching upto excretory longitudinal canals and measures 0.683- 0.113 in length and 0.022- 0.045 in breadth. The cirrus is thin, short, evenly in width, slightly curved, contained within cirrus pouch and measures 0.068- 0.124 in length, 0.011- 0.023 in breadth. The vas deference is thin, longer in length, anteriorly directed, straight and reaches beyond the longitudinal excretory canals and measures 0.203-0.341length and 0.011-0.022 in breadth. The ovary is medium in size, distinctly bilobed, lobes unequal, situated in the anterior region of the segments, each lobe with 5-8 short, blunt, round acini and measures 1.192- 1.305 in length and 0.045- 0.259 in breadth. The vagina is long tube,situated posterior to the cirrus pouch, runs obliquely, for a short distance, turns posteriorly,extends beyond the longitudinal canals, reaches and open in the ootype and measures 0.737 in length and 0.022 in breadth .The ootype is small in size, oval in shape , postovarian, situated in the central region of the segments and measures 0.0747- 0.802 in length and 0.022-0.036 in breadth. The genital pore is medium in size, oval in shape, unilateral, opens marginally, almost at one fifth to one sixth from the anterior margin of the segments and measures 0.102-113 in length and 0.034-0.045 in breadth. The vitelline gland is medium, oval in shape, with irregular lateral margin, obliquely placed, with 4-5 short , blunt acini, postovarian, situated in posterior half of the segments and measures 0.325-0.410 in length and 0.513 in breadth. The longitudinal excretory canals are medium in width and measures in 0.012-0.225 in breadth. The gravid segments were not available.

RESULT AND DISCUSSION

The genus Raillietina was erected by Furmann,1920 and sub genus Raillietina (Paroniella) Furmann,1920 as a type species. The present species Raillietina (Raillietina)tetragona Molin,1958, was collected from the intestine of Corvus corvus at Ramling Tq. Bhoom Dist. Osmanabad M.S. India. After going through the literature, the worm under discussion, comes closer to Raillietina (Raillietina) tetragona Molin,1958 but differs from the same, in few characters, known as additional characters which are as follows.

1. The worm under discussion, differs from Raillietina (Raillietina) tetragona Molin,1958, in the breadth of the worm 9 0.124-0.181) as against 1-4 mm.
2. The present tapeworm differs from it in the number of rows of the spines on the sucker margins (5-6 rows as against 8-10 rows of spines).
3. The present worm differs from it, in the number of testes 15-20 (17) as against 20-30.

As the above characters are minor, it is redescribed here as Raillietina (Raillietina) tetragona Molin,1958, which is reported from Fowl,peacock, guinea fowl, where as the present worms are being reportrd from Corvus corvus at. Ramling Tq. Bhoom Dist. Osmanabad. M.S. India.

Type species	--	Raillietina (Raillietina) tetragona Molin,1958
Host	--	Corvus corvus
Habitat	--	Intestine
Locality	--	At.Ramling Tq.Bhoom Dist.Osmanabad M.S.India.

REFERENCES

- Baer J.C. and Sandras D.F. (1956)** : The first record of Raillietina (R.) celebensis 1902 in man from Australia with cortical survey of previous cases. *J. of Helminthol.* 30 : 173-182.
- Bartel M.H. and Hansen M.F. (1964)** : Raillietina (R.) loeweni n.sp. (Cestoda : Davineidae) from Hare in Kansas with note on Raillietina of north American mammals. *J. Parasitol.* 50 : 448-453.
- Buscher H.N. (1975)** : Raillietina (R.) selfi n.sp. from desert cottontail in Oklahoma with note on distribution of Raillietina from north American mammals. *Proc. Okla. Acad. sci.*, 55 : 103-107.
- Chandler A.C. (1942)** : Two cases of Raillietina infection in infants in Thailand with a discussion of taxonomy of species of Raillietina in man, rodents and monkey. *J. Parasitol.* 43: 81-89.
- Davies T. and Evan R. (1938)** : Report on helminth collection from an Indian Chukar with description of two n.sp. Raillietina Furmann, 1920. *Parasitol.* 30 : 419-426.
- Gupta N.K. and Grewa S.S. (1969)** : On a new cestode Raillietina (R) streptopeliae n.sp. from red turtle Dove Streptopelia tranguabarica . *Parasitol. Pol.* 16 : 73-75
- Gupta N.K. and Grewa S.S. (1970)** : On a new cestode Raillietina (R) inda n.sp. from Indian spotted dove. *Res. Bull. Punj. Univ.* 21 : 511-513.
- Niphadkar S.M. and Rao S.R. (1969)** : On a occurrence of new cestode Raillietina (R) celebensis (Janicki, 1920) from Rats in Bombay with reference to its zoonotic importance , *Indian V.J.* 46 : 816-818.
- Sawada I. (1964)** : On the genus Raillietina (R) Furmann, 1920 (I) *Journal of Nara. Ga. Ku. Gai. Uni.* 12 : 19-20.
- Sawada I. (1971)** : Two new avian cestodes Raillietina (R) somalensis and Cotugnia shohol from *Acridium vulturianum* in Somala, Japan *J. of zoo.* 1693) :131-134.
- Sato H.M., Okamoto M.O. and Maria G.B. (1988)** : A new cestode Raillietina ologocapsulata n.sp. and Raillietina demorariensis (Daniels, 1985) from vehejuelan mammals, *J. Vet. Sci.* 36 (1) :31-46'
- Shinde G.B., Bhavare R.N. and Khamkar D.D. (1990)** : A report of a species of the genus Raillietina (Cestoda: Davaniedae) from *Pyconotus cafer* from Kolhapur. *Ind. J. Inv. Zool. And Aqua. Bio.* 2 (2) : 38:40.
- Srivastava B.K and Srivastav A.K. (1988)** : Observation of new cestode parasite, Raillietina talourensis n.sp. during ecological survey of Fowl, *Gallus domesticus* in Jhansi (India) *U.P.J.* 8(1): 40-42.