IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

New Tapeworm Aliezia jadhavae Sp.Nov.(Cestoda: Thysanosomatinae) from Capra hircus L. Parbhani, (M.S.), India.

B. G. Thakare

Department of Zoology, D.S.M. College, Jintur

Abstract

The mature segments are broader than long, almost eighteen times broader than long, each with a double set of reproductive organs, one on each side with slightly convex lateral margin without projections at the anterior or the posterior corners of the segments and measures 0.220 to 0.212 in length and 4.182 to 3.030 in widths. The cirrus pouch is medium in size, long cylindrical in shape slightly curved situated in the anterior half or just anterior to the middle of the same, transversely placed, slightly obliquely situated not touching to the longitudinal excretory canal 0.129 to 0.114 in length and 0.053 to 0.038 in width. The cirrus is thin slightly curved muscular, unarmed, contained within the cirrus pouch and 0.091 to 0.078 in length and 0.015 in width.

The Vasdeferens is short slightly coiled extend beyond the longitudinal excretory canals and measures 0.023 to 0.318 in length and 0.015 in width. The genital pores are bilateral small in size, oval in shape situated at the 2/3rd from the anterior margin of the segments and measures 0.015 in diameter. The ovary on each side is situated internal to the testes and longitudinal excretory canals. The genital pores are bilateral, small in size, oval in shape and host *Capra hircus L.*

Keyword: NewTapeworm Aliezia jadhavae Sp.Nov. *Capra hircus L.Parbhani*

Introduction

The genus aliezia is erected by Shinde in 1969 with its type's species Aliezia indica sheep. He also reported a new species Aliezia indica minor from the same host. Later on S. M. Ali and G. T. Deshpande redescribed the same genotype in 1971, from deer one more species Aliezia aurangabadensis is added by G. B. Shinde , B. V. Jadhave and S. S. Kadam in 1979.

The present form is being reported from a Goat *Capra-hircus L.* As the present from is having many distinct characters than all the earlier reported species here as a new species as Aliezia Jadhave n.sp. Collected at jintur Dist. Parbhani, Maharashtra state, India.

Materials and Method

Twenty seven cestode parasites were infected collected from the intestine of *Capra hircus L* all were flattened, few heavy infected intestines selected for flattened and preserved in 4% formalin, wash with the help of tap water for several times, stained with Harris haematoxylene, passed through various alcoholic grades, cleared in xylol,mounted in D.P.X. and prepared whole mount slides. Drawing are made with the help of Camera Lucida

Description {Based on Fig – A,B and C}

Eighteen specimens of the cestode, from the intestines of Goat, *Capra hircus L*. at Jintur, Dist. Parbhani, Maharashtra state, India in the month of March 2019. Every time the intestine was dissected. It was found to be some were heavily Infected. The worms were long, with scolex, immature mature and gravid segment, with thin musculature.

The scolex is quadrangular in shape, large in size, slightly wider than neck; distinctly mark off from the strobila and measures 1.703 to 1.477 in length and 1.552 to 1.363 in breadth.

The four suckers are present, large in size, oval in shape arranged in two pair in each lateral half of the scolex slightly overlapping on each other in each pair, occupy major region of it and 0.606 to 0.417 in length and 0.984 to 0.492 in width.

The neck is of medium length slightly narrow than scolex of the same width throughout and measures 1.249 to 1.098 in length and 0.984 to 0.772 in width.

The mature segments are broader than long, almost eighteen times broader than long, each with a double set of reproductive organs, one on each side with slightly convex lateral margin without projections at the anterior or the posterior corners of the segments and measures 0.220 to 0.212 in length and 4.182 to 3.030 in widths.

The inter proglottids glands are small in size, round in shape, in one row present on either side of the proglottids at their lateral corners, in the intersegment region; 10 to 11 in number on each side.

The testes are small in size, almost round in shape 7 to 8 in number, on each side in two lateral groups, arranged on the anterior and posterior side of the vagina placed on the outer side of the ovary on both the side of the longitudinal canal and 0.060 to 0.069 in diameter.

The cirrus pouch is medium in size, long cylindrical in shape slightly curved situated in the anterior half or just anterior to the middle of the same, transversely placed, slightly obliquely situated not touching to the longitudinal excretory canal 0.129 to 0.114 in length and 0.053 to 0.038 in width. The cirrus is thin slightly curved muscular, unarmed, contained within the cirrus pouch and 0.091 to 0.078 in length and 0.015 in width.

The Vasdeferens is short slightly coiled extend beyond the longitudinal excretory canals and measures 0.023 to 0.318 in length and 0.015 in width.

The genital pores are bilateral small in size, oval in shape situated at the 2/3rd from the anterior margin of the segments and measures 0.015 in diameter.

The ovary on each side is situated internal to the testes and longitudinal excretory canals.

It is medium in size oval in shape a single mass compact situates either in the center or the posterior margin of the segment obliquely placed and measures 0.341 to 0.318 in length and 0.076 to 0.060 in width. The uterus in saccular a big in size, cylindrical in shape, highly muscular, situated on the internal side of the ovary appears attaching to it measures 0.318 to 0.062 in width.

The vagina is a thin tube starts from the genital pores; situated posterior to the cirrus pouch, runs transversely straightly oblique, in the middle of the segments, teaches and opens into the ootype and measures 0.780 in length and in width.

The ootye is small in size, round in shape, situated lateral to the ovary, either anterolateral or posters lateral to it measure 0.091 to 0.092 in diameters.

The vitelline gland absent, the gravid segment are broader than long 8 to 9 times broader than long s width slightly convex lateral margins, with or without projections at the anterior or the posterior corners of the segments and measures 0.242 in length and 1.637 in width. They pass well-developed paruterine organs 2 in each segment, one on each side, measuring 0.660 in length and 0.213 in width.

The oncosphores are developed inside the well-developed organs. The oncosphores are measures 0.007 to 0.009 in diameter.

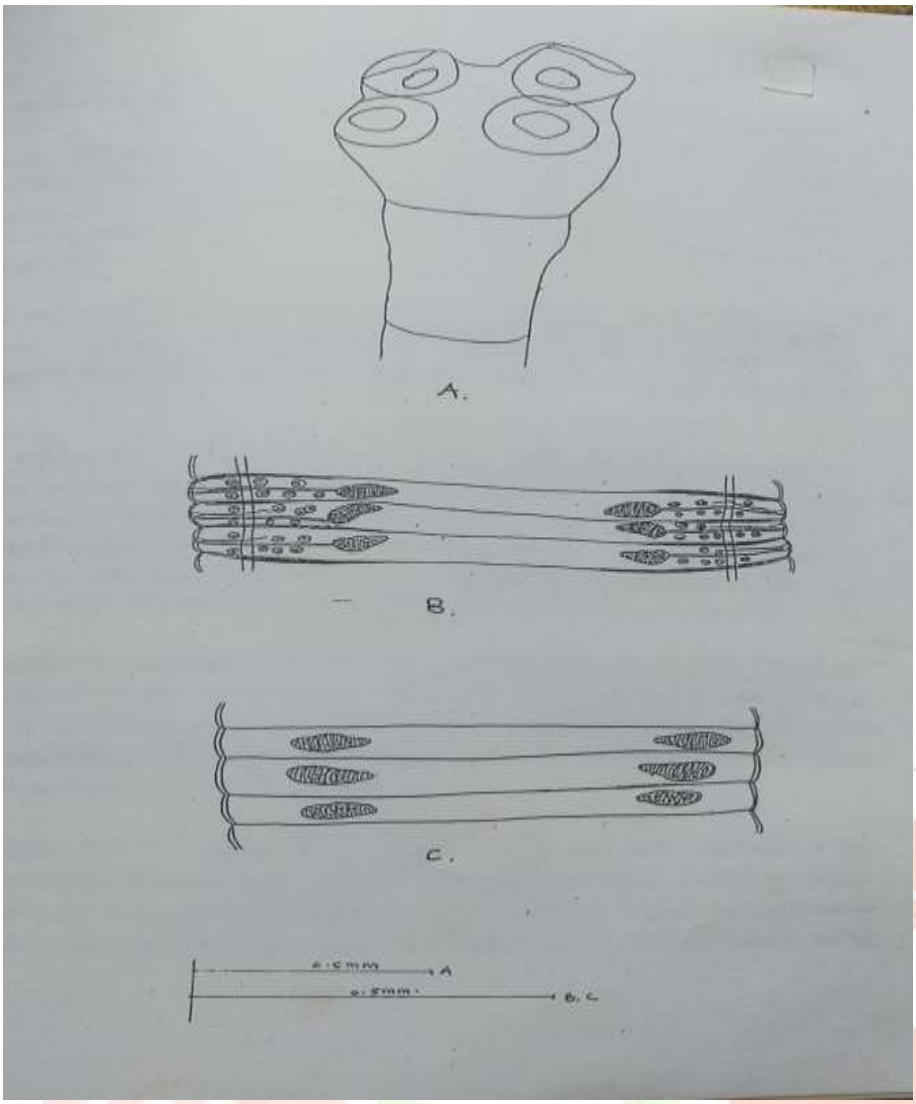

Figure 1 Aliezia jadhavae n.sp. a)Scolex b) Mature Segment c) Gravid Segment

Results and Discussion

01)The present form, in size of the scolex differs from A. Indica minor (0.851 to 0.090 × 0.0954 to 1.078 as against 1.22 0.96), From A. Indicia minor (0.851 to 0.090 × 0.0954 to 1.078 as against 0.95 * 1.22), from A Indica S. M. Ali and G. T. Desgoabdem 1971 (0.851 to 0.909 * 0.954 to 1.078 as against 0.78 * 1.00) and also from A. aurangabadensis G. B. Shinde, B.V.Jadhav and S.S. Kadam, 1979 (0.851 * 0.909 * 0.0954 to 1.078 as against 1.67 to 1.74 * 1.44 to 1.17) and against A. Jadhavae (1.703 to 1.477 * 1.552 to 1363).

02) It differs, in having the definite number of testes on each side of the proglottids, from A. Indica (6 on each side as against 4 to 7 on each side) and from A. aurangabadensis G. B. Jadhav and S. S. kadam (on each side as against 4 on each side).

03) It differs from A, Indica and A. Indica minor in the total number of Interpoglottidal glands at the corner in each segment (9 to 11 , in one row, on each side as against 10 to 12 in two rows on each side), from A. Indica S. M. Ali and G. T. Deshpande (9 to 11 in one row, on each side as against 10 to 14 in two rows, on each side) and from A. aurangabadensis (9 to 11 in on each side) and from A. aurangabadensis (9 to 11 in on each side as against 16 to 20 two rows, on each side)

04) It differs, in the length and the breadth of the mature proglottids from A. Indica (0.083 to 0.112 × 1.563 to 1.607 as against 0.09 × 1.607 as against 0.09 × 1.62), from A. Indica Ali Deshpande (1.563 to 1.607 against 1.28 to 1.30 in breadth only) and from A. aurangabadensis G. B. Shinde, B. V. Jadhav and S. S. Kadam (0.083 to 0112 × 1.563 to 1.607 as against 0.17 to 0.18 × 1.28 to 1.30).
05) It differs from A. Indica in the position of cirrus pouch (situated in the anterior half of the segment or just anterior half of the segment or just anterior to middle of the same as against at anterior margin of the segment), from A. Indica minor (situated in the anterior half of the segment or just anterior to middle of the same as against in the anterior half at $1/3^{rd}$) and from A. Indica ali and Deshpande (situated in the anterior half of the segment or just anterior to middle of the same as against in the anterior half, at $1/4^{th}$).
06) The host of the present form is Goat Capra hircus where as the same of A. Indica Ali and Despande is deer, curve up and of A. Aurangabadesis Shinde, Jadhav and Kadam in Goat.

Some additional differentiating characters are given in comparative chart at the end. By comparing, the distinct and well differentiating characters, as noted above, it is regarded as new species and hence the name Aliezia Jadhavae n.sp. is name of the host Capra hircus L.

Type's species	Aliezia Jadhave n.sp.
Host	*Capra hircus L.*
Habitat	Intenstine.
Locality	jinturDist. Parbhani m.s. India
Date of collection	March 2019.
Type of species	Holotype,paratype aredeposited in Helminthology laboratory Department of zoology. S.M.D.M. College, Kallam, Dist. Osmanabad M. S. India

References

Amin, M. 1941: A new species of the genus Avitellina (castoda) from ovines in the Punjab. Proc. 28, Indian

Blanchard R 1981. Notices heiminthologique (2 me ser); Sur les Teniades a ventouses ar mess genres. Echinocotyle, Davainca.Ophricotyle mem. Soc. Zool. France 4: 420-489.

Fuhramann, 1907 from *Ovis bharal*. *National Journal of Life Sciences,* 3: 309-312 Schmidt G.D**.** *Baerietta allisonae* n. sp. (cestoda : Nematotaeniidae) from a New Zealand gecko, *Hoplodaccylus maculates*. New Zealand Jour of zool, 1980 7(1)7-9 (En) Dept. of Bio. Univ. of Northern Colorado , Greeley , Co 80639, USA.

Shinde,G. B. Jadhav B.V.and Kadam S. S. 1979:On a new species of the genus Aliezia shinde G. B. 196. From the goat (capra hircus) at Aurangabad. India M..Univ. j. Sci.18: 127-131.

Shinde G. B. 1969 On a tapeworm Aliezia indica gen. etal. sp.Nov. from Ovis bharal in India. Zool. Anz. 182: 449-552

Railliet, A. 1893. Traite de Zoologie Medicale et Agricole. Deuxieme Edition. Asselin et Houzaeu. Paris

Padwal, N. and B. Jadhav 2006. *Stilesia govindae* n.sp. (Cestoda: Thysanosomatinae, Fuhramann, 1907) from *Ovibharal*. *National Journal of Life Sciences,* 3: 309-312.

Shinde, G.B. Jadhav, B.V. and Phad A.N.1985 Stilesia maratgwadensis n.sp. (Cestoda: Thysanosomatinae) from Capra hircus at Aurangabad. Riv.Parass.2 (46), (1-2) 213 – 215.

Shinde G. B. , Jadhav B. V. & Ghare S.S.1967 On a new species of the genus Aliezia Shinde G. B. 1967 from goat (*Capra hircus* at Aurangabad. India. Marath. Univ. Jour. Sci. 18:127-131,

Thakare B. G. 2002. Bio-systematic studies of some cestode parasites from Capra hircus from Parbhani (M.S.) Thesis- Dr.B.A.M.U. A,bad

Wardle, R. Mcleod, E.L. and Radinovsky, S. 1974: Advances in the Zoology of tapeworms, 1950-1970, University of Mannesota Press, Minneapolis. Pp. 1-274.

Yamaguti Satyu 1959 : Systema Helminthum, vol 2. The cestodes of vertebrates, Interscience publishes Inc. Newyork pp. 860.