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A New Tapeworm *Dipylidium Singhi* N.sp. (EUCESTODA : DIPYLIDIDAE) From *Canis Familiaris*

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Abstract:

The present communication deals with description of a new species of the genus, Dipylidium Leuckart (1863) with its type species, Dipylidium crassum Millzner (1926), Dipylidium longutum Millzner (1926) Dipylidium gracile Millzner (1926), Dipylidium wakleri Sandhi (1923), in having the number of testes, but differs from them, in many characters.

KEYWORDS:,

New tapeworm, *Dipylidium singhi*, *Canis familiaris*

INTRODUCTION:

The genus *Dipylidium* is established by Leuckart, 1863 as type species *D. caninum* Linne, 1758. Later on 21 species are added to this genus by various workers in the world.

DESCRIPTION :

All the worms were long, whitish in colour, having thick musculature with scolex, numerous immature and mature proglottids. The scolex is medium, quadrangular, with armed rostellum, distinctly marked off from the strobila, slightly longer than broad, broad anteriorly narrow posteriorly and measures 0.257-0.311 in length and 0.126-0.027 in breadth. The suckers are large, oval arranged in two pairs, overlapping on each other, with thin musculature and measure 0.078-0.107 in length and 0.072-0.097 in breadth. The scolex bears on armed rostellum which is medium, oval, elongated situated at the tip of the scolex, the rostellar hooks small, rose thorn shaped in appearance, arranged in 10 rows, which are 65 in number, each row with different number of hooks. (I-4, II-6, III-7, IV-8, V-7, VI-7, VII-5, VIII-9, IX-6, X-6) with round based disc and curved, pointed single prong and measure 0.010-0.121 in length and 0.003-0.012 in breadth. The neck is medium in length, cylindrical, longer than broad with straight or irregular lateral margins and measures 0.611-0.655 in length and 0.116-0.155 in breadth.

The mature proglottids are large, barrel shaped, longer than broad, almost 2 to 3 times longer than broad, broad in the middle, tapering on both the sides, with convex, irregular lateral margins, with or without projections, smaller, conical or round at the anterior and posterior corners of the segments and measure 3.790-4.889 in length and 1.084-2.274 in breadth. The testes are medium, oval to round, 250-260(258), distributed throughout the segments from the anterior to the posterior margin and from one lateral to the other lateral margin of the segments, leaving space for ovary, cirrus pouch, vitelline gland on either side, unevenly distributed, bounded laterally by the longitudinal excretory canals and measure 0.076-0.091 in length and 0.076-0.091 in breadth. The cirrus pouch on either side is medium, spindle shaped, either broader anteriorly and narrow posteriorly, opens marginally, extending up to the longitudinal excretory canals and measure 0.144-0.152 in length and 0.038-0.053 in breadth. The cirrus is thin, stout, slightly zig-zag, contained within the cirrus pouch, protrusible and measures 0.212 in length and 0.015 in breadth. The ovary on either side is large, inverted horse shoe shaped, indistinctly bilobed, follicular,

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having numerous long, separate, finger shaped acini, situated in the middle or just posterior to the middle of the segment and measures 0.796-1.334 in length and 0.106-0.220 in breadth.

The vagina is medium in width, situated posterior to the cirrus pouch, starts from the genital pore, runs posteriorly, then obliquely, slightly curved, crosses the longitudinal excretory canals, turns posteriorly, then anteriorly, crosses the ovary, reaches and opens in to the ootype and measures 0.098-1.016 in length and 0.015-0.028 in breadth. The ootype is medium, irregular, postovarian, placed in the concavity of the ovarian lobes and measures 0.076-0.106 in length and 0.083-.098 in breadth. The vitelline gland large, almost kidney shaped in appearance, with 3-4 lobes, which are short, blunt, round in shape and measures 0.076-0.114 in length and 0.189-0.356 in breadth. The genital pores are small, oval, bilateral almost in the middle of the lateral margins of the segments and measure 0.038 in length and 0.008 in breadth.

The longitudinal excretory canals are medium in width and measure 0.030-0.038 in breadth.

DISCUSSION :

After going through the literature, the worm under discussion , comes closer to *Dipylidium crassum*, *Dipylidium longutum*, *Dipylidium gracile* and *Dipylidium walkeri* in the number of testes, but differs from them, in many characters as follows.

· The present cestode differs from *Dipylidium crassum* in having the scolex 0.33X0.38, suckers 0.165X0.145, rows of rostellar hooks 5, but occasionally 6-7 rows; rostellum 0.095-0.090, neck short, wide anteriorly, testes 150-175, cirrus pouch pyriform, 0.225X0.065, ovary bilobed, very compact, 0.545X0.255; vitelline gland as a large lateral ovarian lobe, compact, 0.160X0.240.

· The present form differs from *Dipylidium longutum* in having the scolex 0.410X0.440, suckers 0.170X0.175, rostellum 0.065X0.110, neck long, testes 180-240, cirrus pouch pyriform, 0.270X0.175; ovary bilobed, compact, 0.365X0.440, vitelline gland smaller than lateral ovarian lobes and compact.

· The present worm differs from *Dipylidium gracile* in having the scolex 0.410X0.460, rostellum 0.070X0.120 in 5-7 rows of rostellar hooks , testes 200-259, cirrus pouch pyriform, ovary bilobed but very diffused ; vitelline gland diffused and as large as lateral ovarian lobe.

· The present form, differs *Dipylidium walkeri* in having 0.200X0.360 width of scolex , suckers 0.118X0.150 in diameter, rostellum elongated, 0.063X0.100, rostellar hooks in 6-7 rows, neck short, testes 225, cirrus pouch 0.050X0.020, ovary bilobed , but very diffused, vitelline gland larger than lateral ovarian lobe.

On the basis of the above, significant morphological variations, it is proposed, to accommodate the present cestodes, as a new species and hence the name *Dipylidium singhi* n.sp. is proposed, in honour of Professor Dr. Kunwar Suresh Singh, Head, Parasitology Division, IVRI, Izzatnagar (U.P.), who has contributed a lot in our knowledge of cestology.

Type species : *Dipylidium singhi* n.sp.
Host : *Canis familiaris*
Habitat : Intestine
Locality : At. Partabad, Tq. Jewargi
Dist. Gulbarga, (K.S.) India.

Type specimens :

Holotype and paratype are deposited in Helminthology Laboratory, Department of Zoology, Dr. B. A. M. University Aurangabad.

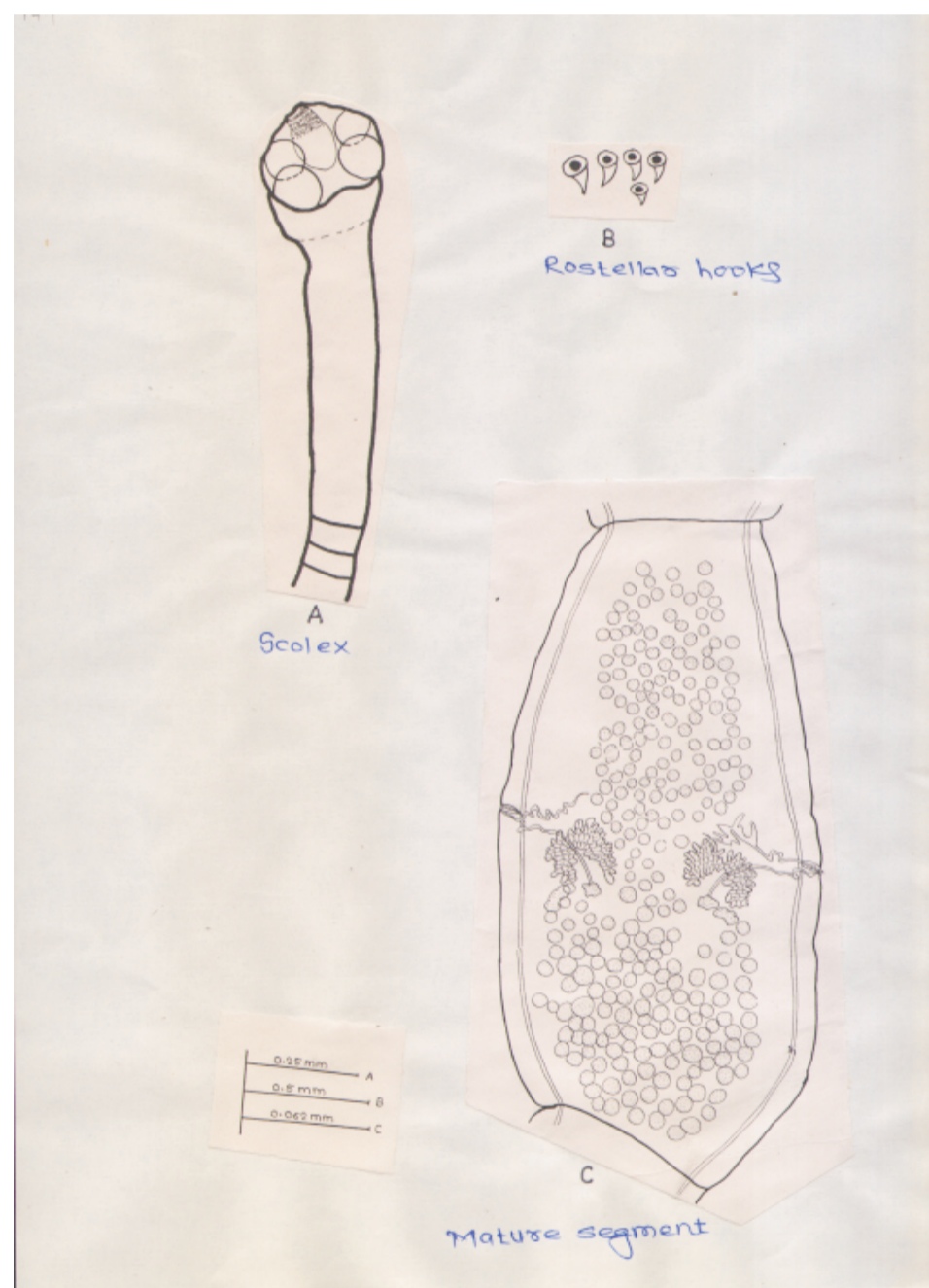
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