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ORIGINAL ARTICLE

The Morphology Of Mogheia Kangaraensis N.SP. A New Cestode From The Intestine Of Capra Hircus (GOAT) At. Kangara(M.S.) India.

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Abstract:

The Scolex of Mogheia kangaraensis n.sp. is medium, oval, highly muscular Suckers large, oval, arranged in two pairs, one pair in each half of the scolex, overlapping in each other in each pair. Mature proglottids are thin, broader than long. Testes 20 in number in each segment 10 in poral half and 10 in aporal half, small to medium, bean shaped in appearance, ootype small, oval, ventrally of the ovary. Vagina is a long tube, posterior to the cirrus pouch. Genitalpore medium, oval, marginal, regularly alternate.

INTRODUCTION :

The genus Mogheia was erected by Lopez in 1944. Moghe, 1933 synonymized it as Baeria with the type species M. orbiuterina in India, since then nine species have been reported till to date, under this genus.

MATERIAL AND METHOD:

Six specimens of the cestode parasites were collected from the intestine of Goat, Capra hircus at Kangara, Tq. Osmanabad, Dist. Osmanabad. India in the month of May 1998. The worms were flattenened, fixed in 4% formalin, stained with Harris haematoxylin, passed through various alcoholic grades and mounted in D.P.X. Drawings are made with camera lucida. All measurements are in millimeters.

DESCRIPTION :

All the worms were small in size, consist of scolex few immature and mature proglottids. The scolex is medium in size, slightly oval in shape, highly muscular, broader than long and measures 0.840-0.965 in length and 0.795-1.169 in breadth. The suckers are large in size, ovalin shape, arrangd in two pairs, one pair in each half of the scolex, overlapping in each other, in each pair, slightly obliquely placed and measures 0.488-0.613 in length and 0.379-0.454 in breadth. The neck is long, broad anteriorly, narrow posteriorly, longer than broad and measures 1.203-1.306 in length and 0.398-0.568 in breadth.

The mature proglottids are thin, broader than long and measures 0.136-0.193 in length and 2.009-2.021 in breadth. The testes are small to medium in size, oval in shape, all testes are 20 in number in each

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segment, 10 in poral half and 10 in aporal half , each lateral group is again divided in to two fields, by the longitudinal excretory canals and measures 0.034-0.057 in length and 0.023 -0.068 in width. The cirrus pouch is small in size, oval in shape, situated either at the centre or in the anterior half of the segments, opens marginally, short, not reaching up to the longitudinal excretory canals, narrow proximally and broad posteriorly and measures 0.136-0.182 in length and 0.068-0.103 in breadth. The cirrus is stout, thin, slightly curved, contained within the cirruspouch and measures 0.136 in length and 0.011 in breadth. The vasdeferens is short tube, slightly curved, anteriorly directed, extends up to the longitudinal excretory canals and measures 0.023 in length and 0.011 in width. The ovary is medium in size, touching or not touching to the anterior or posterior margins of the segments, bean shaped in appearance, obliquely placed and measures 0.079-0.091 in length and 0.091-0.125 in breadth.

The vagina is a long tube situated posterior to the cirrus pouch, runs transversely, crosses the longitudinal excretory canals, curved, reaches and opens in to the ootype and measures 0.681 in length and 0.011 in width. The ootype is small in size, oval in shape , placed ventrally of the ovary, from poral side and measures 0.034 in lengt and 0.022 in breadth. The genital pores are medium in size, oval in shape, marginal, regularly alternate, at the middle or just anterior to the middle of the segments and measures 0.057 in length and 0.022 in breadth. The uterus is medium to large in size, placed centrally of the segments, attached to the ovary, from aporal side of it and measures 0.386-0.443 in length and 0.045-0.102 in breadth.

The longitudinal excretory canals are narrow and measures 0.011 in width.

DISCUSSION :

The genus Mogheia was erected by Lopez-Neyra in 1944, as a type species Mogheia orbiuterina (Moghe 1933) from Turdoides somervillei. Later on following species added to this genus.

Sr. No.	Name Of Species
1	M. megaparuterina Capoor & Shrivastava,1960
2	M. bayamegaparuterina capoor,1967
3	M. asturi Gaikwad & Shinde,1981
4	M. capsychi Gupta & Sinha,1984
5	M. orioli Gupta & Sinha,1984
6	M. guptai Gupta & parmar,1985
7	M. govindi Shinde, Jadhav & Kadam,1986
8	M. parbhaniensis Shinde, Jadhav & Kadam,1986
9	M. domesticus Jadhav et.al.1990.

After going through the literature, the worm under discussion, in having Scolex medium, oval, Mature segments are thin, broader than long. Testes 20 in number, in each segment 10 in poral half and 10 in aporal half. Cirrus pouch small, oval, cirrus stout, thin, slightly curved. Vasdeferns is short tube, slightly curved. Ovary medium, bean shaped in appearance, vagina posterior to the cirrus pouch.

· The worm under discussion differs from M. orbiuterina having testes, rounded, cirrus pouch hardly reaching up to the longitudinal excretory canals, ovary small, poral, compact, paruterine organ small, almost circular, with large uterus, eggs 3-4 in numbers and found in Turdoides somervillei.

· The present cestode differs from M. megaparuterina which is having scolex oval, testes 17-28 follicular, encircling the ovary, cirrus pouch short, elliptical, receptaculum seminis postero-ventral to ovary, paruterine organ round, sac like at poral side of uterus, middle of the suceeding segments.

· The present form differs from M. bayamegaparuterina which is having the scolex almost oval, testes 4, situated lateral and aporal to ovary in the central medulla, vagina posterior to the ovary and found in Ploceus philippines.

· The present tapeworm differs from M. asturi which is having testes 16-18, situated lateral and

anterior to ovary, cirrus pouch small, ovary small, oval in posterior half of the segment, vagina posterior to ovary, paruterine organvery big, oval, transversely situated, contaning numerous eggs and found in Asturbadin.

· The present cestode differs from M. capsychi which is having testes 10-13, on a poral side of ovary, ovary small, aporal, vagina dorsal to longitudinal excretory canals and reported from Oriolus oriolus.

· The worm under discussion differs from M. guptai which is having scolex pear shaped, receptaculum seminis present, small uterus, paruterine organ large, sac like and reported from Anagya caudatus.

· The present tapeworm differs from M. govindi which is having scolex small, quadrangular, testes 4 aporal, situated in a line, cirrus pouch small, at middle of segment, paruterine organ large, oval with many eggs and reported from Passer domesticus.

· The present worm differs from M. parbhaniensis which is having scolex quadrangular, testes 5, round in shape, aporal in three lines, cirrus pouch small, cylindrical, elongated at 1/3rd from the anterior margin, paruterine medium in size, oval with many numerous eggs and found in Passer domesticus.

· The worm under discussion differs from M. domesticusi which is having the scolex quadrangular, testes round in shape, more in poral group, cirrus pouch small, ovary crescent shaped, wide, touching to anterior and posterior margin of segments in poral half and reported from Passer domesticus.

The above noted characters are valid enough erect a new species for the studied worms and hence the name Mogheia kangaraensis n.sp. is proposed after locality.

Type species : Mogheia kangaraensis n.sp.
Host : Capra hircus
Habitat : Intestine
Locality : Kangara, Dist. Osmanabad, India.

TYPE SPECIMENS :

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

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REFERENCES :

Capoor, V.N. & Shrivastava, V.L. 1966. On a new cestode Mogheia Lopez-Neyra, 1944 from the intestine of birds from Lucknow, U.P., India. Ind. J. Hel. 34(1) : 50-55.

Capoor, V.N. & Shrivastava, V.L. 1966. On a new cestode Mogheia megaparuterina n.sp. from Allahabad, India. Ind. Acad. Sci. B.64 (6) : 293-295.

Capoor, V.N. 1967. On a new cestode Mogheia bayamegaparuterina n.sp. from a Indian common Baya, Ploceus phillipinus Linnaeus, from Allahabad, India, with the revision of the diagnosis of the genus Mogheia Lopez-Neyra 1944.
Proc. Mat. Acad. Sci. India, Sec.B. 37 (1) : 51-53.

Shinde, G.B. & Gaikwad, P.M. 1981. On a new species of Mogheia Lopez-Neyra 1944 (Cestoda: Dilepidinae) from Shikra at Aurangabad, India.
Marath. Univ. J. Sci. (Nat. Sci.) Vol. VIII No.2, August, 1990.

Wardle, R.A., Mc Leod, J.A. & Radinovsky, S. 1974. Advances of the Zoology of Tape worms 1950-1970. University of Minnesota Press, Mineapolis, P.P. 1-274.

Yamaguti, S. 1959. Systema Helminthum Vol. II. 1-860.