

MORPHOLOGY OF CESTODE PARASITES OF GENUS *COTUGNIA* (DIAMARE 1893) FROM THE INTESTINE OF *GALLUS DOMESTICUS*.

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ABSTRACT

Present investigation was undertaken to evaluate morphology of cestode parasites occurring in local chicken (*Gallus domesticus*) from various places of Jalna. Scolex large, square, broad in the middle, measured 0.735 mm (0.650-0.820 mm) in length and 0.936 mm (0.776-1.097 mm) in width, neck medium, mature segments broader than long measured 0.499 mm (0.477-0.520 mm) in length and 2.782 mm (2.650-2.915 mm) in width. Testes 35 to 38 in numbers, the cirrus pouch oval, Vagina a thin tube, Ootype medium, rounded and measured 0.019 mm (0.015-0.023 mm) in length and 0.034 mm (0.030-0.038 mm) in width.

Key words: *Gallus domesticus*, Infection, Intestine, Jalna District

Introduction:

Helminths are major parasites of poultry animal. These are found in the intestine or droppings of the birds. Several species of cestodes live in intestinal tract of chicken. These parasites are more frequently found in warm season. As the information on the cestode parasites of chicken is either inadequate or unavailable, present study was undertaken in different villages of Jalna district (Maharashtra), India

Materials and Methods:

Present study was undertaken during July 2015 to November 2016. Twenty five live birds (*Gallus domesticus*) were collected from different villages of Jalna District (Maharashtra), brought to the Laboratory, dissected to retain different parts of intestine, cestode parasites were recovered from various organs and transferred to petri dish containing normal (4%) saline. After 15-30 minutes, the worms were transferred to the jars containing 70% alcohol for preservation. The cestodes were pressed between two glass slides and the slides were tied with thread. The slides were placed in 70% alcohol for 24 to 48

hours. By using graded series of alcohol, cestodes were stained with borax carmine, dehydrated and mounted in Canada balsam. These cestodes were identified following Yamaguti (1935 a, 1935 b).

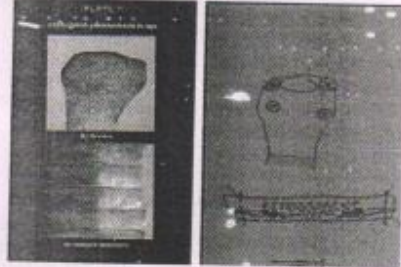
Description:

Twenty five specimens of cestode parasites were collected from the intestine of *Gallus gallus domesticus* Jalna District (Maharashtra). Scolex large, square, broad in the middle, narrow towards the posterior side and measures 0.735 mm (0.650-0.820mm) in length and 0.936 mm (0.776-1.097 mm) in width. The Scolex bears four suckers almost of equal size, rounded, placed at corners and measures 0.201 mm (0.160 - 0.243 mm) in length and 0.185 mm (0.146 - 0.223 mm) in width, rostellum large, oval, anteriorly placed and measures 0.359mm (0.214 - 0.504 mm) in length and 0.408mm (0.413 - 0.523 mm) in width. Neck is medium, wide, broader than long and measures 0.447 mm (0.427-0.466 mm) in length and 0.572 mm (0.504-0.650 mm) in width. Mature segments are broader than long almost five times lateral margin slightly concave, each segment with double set of reproductive organs and measures

0.499 mm (0.477 - 0.520 mm) in length and 2.782mm (2.650 - 2.915 mm) in width. The testes are 35 to 38 in numbers, round to oval in shape, scattered in the middle of the segment, placed in between two ovaries and measures 0.072mm (0.060 - 0.083 mm) in length and 0.090mm (0.083 - 0.098 mm) in width. The cirrus pouch is oval, medium and measures 0.224mm (0.212-0.235 mm) in length and 0.064mm (0.045-0.083 mm) in width. Cirrus coiled, tubular within the cirrus pouch and measures 0.155mm (0.144 - 0.167 mm) in length and 0.008mm in width. Vas deferens tubular, runs obliquely up to the ovary and measures 0.356mm (0.341-0.371mm) in length and 0.011mm (0.008-0.015mm) in width. Genital pores small, oval in shape sub-marginal and measures 0.052mm (0.045-0.060mm) in length and 0.030mm (0.023-0.038mm) in width. Vagina is a thin tube, starts from genital pores runs posteriorly to form seminal receptaculum and measures 0.117mm (0.114-0.121mm) in length and 0.008mm (0.008-0.008mm) in width. The seminal receptaculum is thin, coiled tube, runs transversely, posterior to cirrus reaches to ootype and measures 0.531mm (0.524-0.538mm) in length and 0.030mm (0.023-0.038mm) in width. The ootype is medium, rounded and measures 0.019mm (0.015-0.023mm) in length and 0.034mm (0.030-0.038mm) in width. The ovary is butterfly shaped with irregular margins, placed Laterally towards the segment and it measures 0.677mm (0.144-1.211mm) in length and 0.776mm (0.379-1.174mm) in width. Longitudinal excretory canal present on either side of the segment and it measures 0.508 mm (0.500-0.516mm) in length and 0.026 mm

(0.023-0.030mm) in width. The vitelline gland is large, oval, pre-ovarian and measures 0.055mm (0.043-0.063mm) in length and 0.082mm (0.078-0.087mm) in width.

Result and Discussion:



The genus *Cotugnia* was reported in the year 1893 with its type species *C. japonica* from *Gallus gallus* Domesicus. So far, 28 species have been added to this genus. The present worm comes closer to all the known species of the genus *Cotugnia* but differs due to some characters from the described species.

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References:

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