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Redescription of *Cotugnia digonopora* (Pasquale 1890)(Cestoda: Davaineidae) from *Gallus Gallus domesticus*

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Abstract: *Cotugnia digonopora* (Pasquale 1890) cestode parasite of *Gallus gallus domesticus* is redescribed and illustrated on the basis of type material from Aurangabad region captured in the vicinity Marathawada, Maharashtra, India. The present worms resemble with *Cotugnia digonopora* in having all essential morphological characters. having scolex oval, rostellum elongated/rounded, presence of four suckers, short neck, mature proglottids are broader than long, testes rounded and excretory canal long tube. But the same differ due to number of testes. Hence it is redescribed.

Key Words *Cotugnia digonopora*, Pasquale 1890, Cestoda, Davaineidae, *Gallus Gallus domesticus*

Introduction

Poultry have been domesticated for thousands of years. Archaeological evidences

Genus *Cotugnia* was erected by Diamare(Diamare, 1893) with type species *C.digonopora* (Pasquale, 1890) collected from the domestic fowl. After that number of species was added in the genus *Cotugnia* by different authors from India And from abroad (Spassky A. A, 1984, Wongsawod C, 1998, Shinde G.B. 1985, 1999a, 1999b, 2012, Shukla 2012, Tat 2005). Cestode parasites they are depend on their host for their physiological and nutritional needs. Physiological dependency of *Cotugnia digonopora* on is also affect the nutritional status of the host *Gallus domesticus* (Waghare S B. 2010).

The present communication deals with the redescription of a *Cotugnia digonopora* species collected from the host *Gallus gallus domestiucus* .

Material and Methods

Eighy seven cestode were collected from the intestine of *Gallus gallus domesticus* from Aurangabad district Maharashtra state, India, during the period Dec-2006 to Dec-2009. Thirty cestode were preserved in hot 4% formalin and specimen were stained with Haris Haematoxyline and Borax carmine stain and passed through various alcoholic grades. Cleared in xylene, mounted in DPX and drawing are made with aid of *camera lucida*. All measurements are given in the millimetre **[6,7].**

Results

In the present study, general morphological characters of the cestodes are given here in oreder to indentify the helminth parasites

Eucestoda : Wardley ,Mcleod and Radinovsky 1974

Davaineideae : Wardley ,Mcleod and Radinovsky 1974

Davaineidae :	Fuhrmann 1907.
Cotugnia	Dimarae, 1893
Cotugnia digonopora	(Pasquale 1890)

Generic diagnosis

Davaineidae with double set of genitalia. Proglottids very short, linear, except the last one.inner longitudinal muscle in several layers, alternating with transeverse muscle. Teste in intra vascular fields, continuous or interrupted medinaly, may or may nor overreach the excretory stems laterally.genital ducts dorsal to exceretory stems and nerve trunk. Cirrus pouch subcylindrical. Genital pore bilateral. Female gland just medial to excretory stem. Eggs in parachymatous capsule, one per capsule (Yamaguti S.,1935a, 1935b).

Description

Sixty five cestodes were collected from the intestine of Gallus gallus domesticus from Aurangabad district Maharashtra state, India, during the period Dec-2006 to Dec-2009. Thirty cestodes were preserved in hot 4% formalin ans speciemen were stained with Haris Haematoxyline and Borax carmine stain and passed through various alchoholic grades. Cleared in xylene, mounted in DPX and drawing are made with aid of camera lucida. All measurements are given in the milimeter.

All cestodes are long, consisting of scolex, immature and mature proglottids. The scolex is oval and measures 1.3300(1.0581-1.6019) in length and 1.4563 (1.3591-1.5533) in width. The scolex is having four rounded suckers and measures 0.3155 (0.2184-0.4126) in length and 0.3980 () 0.3398-0.4563 in width. The anterior end of scolex terminate in rostelllum which is rounded to elongated in shape with four rows of hooks which

is 'V' shaped. The neck is short and measures 0.2184(0.1941-0.2427) in length and 0.228(1.2183-1.2377) in width. (Fig 1)

The mature proglottids are 3-4 times broader than long and measures 0.4368 (0.3883-0.4854) in length and 1.3057(0.228-1.3785) in width. The testes are oval to rounded, 120-150 in numbers and measures in diameters 0.02427. Cirrus pouch is cylindrical and marginally placed and measures 0.1067 (0.0873-0.1262) in length and 0.0776 (0.0582-0.0970) in width. Cirrus curved, thin present within the cirrus pouch and measures 0.2718 (0.2621-0.2815) in length and 0.0097(0.0048-0.0145)in width. Vagina and cirrus pouch opens as a common pore known as genital pore, which is small in size, oval in shape and having the diameter of 0.0194.

The vagina is long, slightly curved, posterior to cirrus pouch and forms receptaculum seminis and measures0.2378 (0.2330-0.2427) in length and 0.0097(0.0048-0.0145) in width. The receptaculum seminis is straight tube opens in to ootype and measures 0.1165(0.1067-0.1262) in length and 0.0097(0.0048-0.0145)in width. Ootype is oval, small in size and measures 0.0436 in diameter. The overy is compact and measures 0.1650(0.1553-0.1747) in length and 0.528 (0.0485-0.1165)in width. The vitelline gland is rounded and measures 0.0291 in diameter. (Fig 2)

The excretory canal is long tube, running across the proglottids. Longitudinally on both the side of proglottids and measures about 0.4223(0.4077-0.4369)in length and 0.0145(0.0097-0.0194)in width.

Discussion

The present worm come closer to Cotugnia digonopora (Pasquale ,1890) In having scolex oval , rostellum elongated/rounded,presence of four suckers, short neck, mature proglottids are broder than long, testes rounded and excretory canal long tube.

But the same differ due to number of testes (120-150 Vs 120-130), ovary (compact Vs bilobed). Some variability in measurements of organs as the characters are minor, it is redescribed as Cotugnia digonopora (Pasquale ,1890).

TAXONOMI SUMMARY:

Type species : *Cotugnia digonopora* (Pasquale ,1890)

Host: *Gallus gallus domesticus* (Linnaeus, 1758)

Habitat: Intestine

Locality : Aurangabad M.S., India

Period of collection: Dec. 2006- Dec.2009

Deposition: Helminthology Research Lab, Dept. Of Zoology, Dr. Babasaheb AmbedkarMarathawada University, Aurangabad.

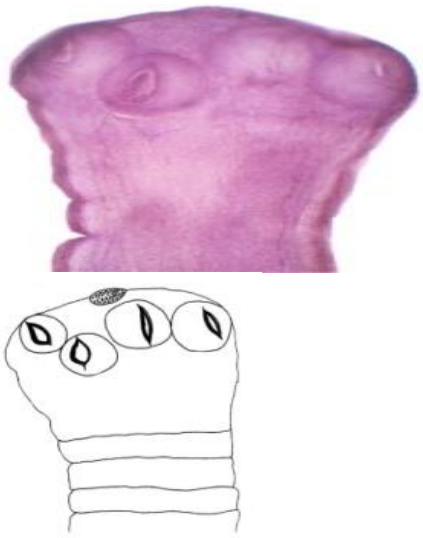

Fig. 1. Cotugnia digonopora (Pasquale ,1890) Scolex

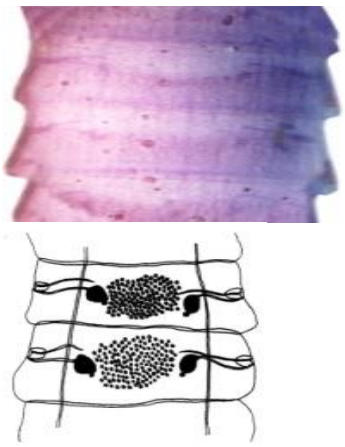

Fig. 2. Cotugnia digonopora (Pasquale ,1890) segment

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