

Avitellina centripunctata infection in Nilgai (*Boselaphustragocamelus*)

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Abstract

Nilgai (*Boselaphustragocamelus*) are native to India and Pakistan, where they are the largest species of antelope. It is one of the most commonly seen wild animals of central and northern India, often seen in farmland or scrub forest. The main threat to this species is the loss of their habitat due to human population growth and encroachment of forest also they are acting as carrier for many infectious agents including parasites. Adult tapeworm parasites in herbivores animals' majorly belong to family Anoplocephalidae. Their infestations in animals adversely affect the growth, production and immune status of animals (Narsapur, 1988). Their systemic study in wild as well as domesticated animals is of utmost importance. Information regarding the prevalence of tape worm infestation in Nilgai from central India is lacking. The present communication is dealing with the occurrence of tapeworm infestation in Nilgai from central India.

Materials and method

A carcass of Nilgai (*Boselaphustragocamelus*) from forest department seminary hills Nagpur was brought to the department of veterinary pathology for the post mortem investigation. Detailed postmortem was conducted. Systemic necropsy investigations revealed severe congestion of small intestine due to presence of the numerous tapeworms in the lumen. Worm samples were collected in 70% alcohol for further identification while affected portion of intestine was preserved in 10% buffered formal saline solution for the histopathological investigation. Samples were processed by routine

procedure to obtain 5µm thick sections from paraffin blocks which were stained with the hematoxyline and eosin stain (H & E). Identification of Tape worm was performed based on morphological characters described by Soulsby (1982).

Result and discussion

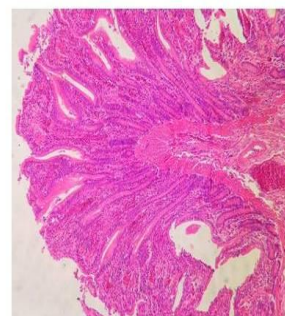


Fig. 1 Hemorrhages in intestine



Fig. 2 Tapeworms recovered from intestine of Nilgai

Tapeworms were collected and identified as *Avitellinacentripunctata* depending on the morphological features. Adult worms were 3 to 3.5 m in length and 2.5 to 3 mm in width, posterior end of the worms was cylindrical. Proglottids were short and not distinctly segmented. The uterus was transverse in the middle portion of the proglottid while eggs were present in the capsule which was present in the par-uterine organ. In the middle portion of the proglottids uterus and par-uterine organs showed opaque line. Histopathology of affected portion of intestine revealed hemorrhages, congestion with engorgement of sub mucosal vessels, sloughing of epithelial cells from tip of the villi and vacuolar degenerative changes in glandular portion of intestine. The present findings were supported by the Tariq *et al.* (2008) who reported the 3.7% prevalence of *Avitellinacentripunctata* in sheep from Kashmir valley. Mohammed, (2008) studied the prevalence of *Avitellinacentripunctata* in goat and sheep of Egypt which was 6.1% and 9.1% respectively, Fritsche *et al.* (1993) examined sheep and goats for helminthes in Gambia and they recovered 43% prevalence of *Moniezia benedeni*, *Avitellinacentripunctata* and *Stilesia globulosa*. Gharib (1998) found 11.5% of prevalence of *Avitellinacentripunctata* in sheep of Egypt. Tandanet *al.*, (2005) studied the cestode (Anoplocephala) infections in the siri cattle of mountainous region of Bhutan and Arunachal Pradesh.

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