

Infection of *Capillaria contoarta* in peafowl

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Abstract

Capillaria contoarta infection has been described in a captive peafowl, which died due to severe chalky white diarrhoea and progressive weakness. Grossly with a magnifying glass a mass of hair like worms with desquamated material was observed on the crop mucosa. From the morphology of parasite and egg it was identified as *Capillaria contoarta* infection. Histologically the crop revealed cut section of parasite with eggs. Desquamated areas with mononuclear cell infiltration were observed in mucosa.

Capillaria sp. is a smallest nematode and it belongs to Capillaridae family. Usually *Capillaria* are thought to occur more frequently from the crop to the intestine (digestive tract) of birds (Hofsted 1975). It causes harmful effects in birds when there is severe infection (Hofsted 1975). *Capillaria contoarta* is a thread worm which usually infects wild birds and this infestation is highly fatal due to non functional crop (Hofsted 1975). The present study reports a case of *Capillaria contoarta* infection in crop of Peafowl.

An adult Peafowl carcass was received from S. V. Zoological Park, Tirupati for post-mortem examination with clinical history of chalky white diarrhoea for 5 days and progressive weakness. Postmortem examination revealed anaemia and emaciation. The most prominent lesions were found in the crop. The mucosa of crop was grossly thickened and rough (Fig.1). On careful examination with a magnifying glass, the mucosa appeared to be covered with masses of hair like or thread like worms. The anterior part of the parasite appeared burrowed deep in to mucosa. The mucosa was covered with thick fibrinous exudate and desquamated materials. Mucosal scrapings from crop and parasites were collected carefully and sent to the Parasitology department. The parasite was identified as *Capillaria contoarta*, based on its anatomical location and the characteristic hair like appearance (Fig.2) and morphometric studies of egg and parasite (Soulsby 2006).

Histological examination of crop revealed cut section of parasites with eggs (Fig.3). The mucosa was noted to be covered with false membrane and congestion of blood vessels. Areas of sloughed mucosa with severe mononuclear cell infiltration was noticed. In the intestines catarrhal changes with goblet cell proliferation and mononuclear cell infiltration were observed. Lungs and kidneys showed severe congestion. Hofstad et al, 1975, Calnek et al, 1994, Murquhart et al, 1996, and Vegad, 2004, have also recorded similar observations.

The gross and microscopic lesions with morphology of egg and parasite, led to the diagnosis of *Capillaria contoarta* infection in peafowl.

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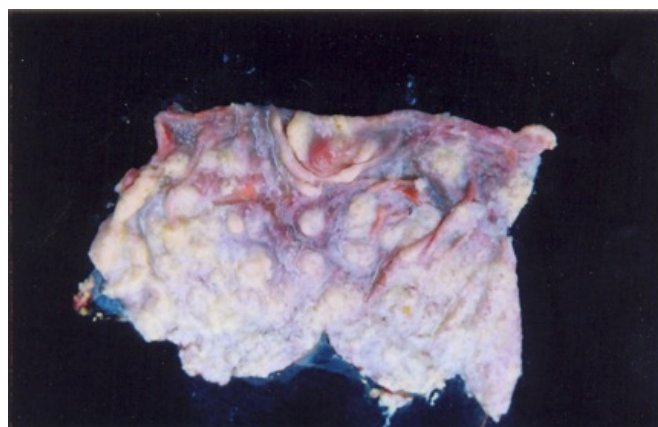


Fig.1: Crop showing thickened and roughened mucosa covered with masses of hair like parasites.



Fig.2: Showing hair like worms "*Capillaria contoarta*" collected from crop mucosa.

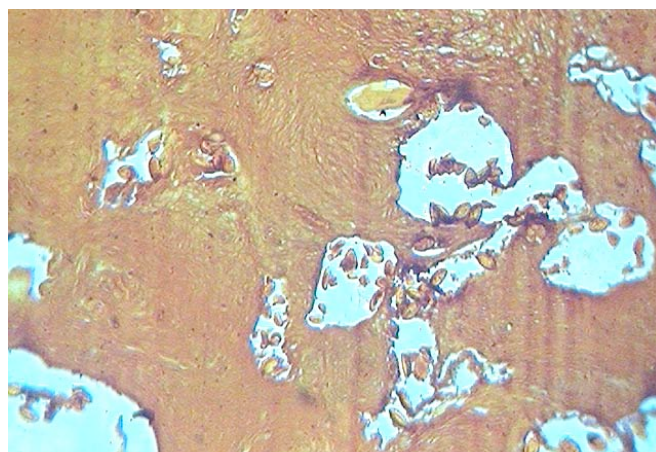


Fig.3: Histological section of crop showing cut section of parasite with eggs. H&E X 70.

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