ASCARIDIA GALLI INFECTION IN NATIVE BIRDS

K.Shibi Thomas and T.Lurthu Reetha

Veterinary University Training and Research Centre, TANUVAS, Tiruchirapalli-620 003, Tamil Nadu

Received 17-6-2014 Accepted 30-6-2014

Corresponding Author: shibisaran@gmail.com

Traditional backyard poultry keeping with a flock size of 5-20 birds, with almost zero financial input is quite popular amongst rural population. The egg production through backyard system contributes to 30% of national egg production (Singh *et al.*, 2009). Helminthiasis is considered as one of the most significant constraints on poultry production in humid tropical climatic conditions of parasites (Kulkarni *et al.*, 2001).

CASE HISTORY AND OBSERVATIONS

One dead male native bird (cock) aged about 2 months was brought to Veterinary University Training and Research Centre, TANUVAS Tiruchirapalli. Hundred birds were maintained in the farm under semi-intensive managemental conditions. The birds were fed with home made feed preparation and reared the birds in backyard. The affected bird showed unthriftiness, loss of appetite, drooping of the wings, ruffled feathers, bleaching of the head and emaciation and change in behaviour. Postmortem examination was carried out and intestines were dissected longitudinally and screened for the presence of helminthes parasites. The adult parasites were collected with the help of curved needle from the intestine and preserved in 10% formalin for identification. Intestinal contents were also examined by sedimentation and flotation methods as per the procedures of Bowman and Lynn (1995) for the presence of helminthes ova/coccidian oocysts. The morphology of the adult worm and eggs were identified based on the size, shape and colour of the shell wall as per method of Soulsby (1983). Pieces of intestines were collected and stored in 10% Neutral Buffered Formalin for histopathological studies (Luna, 1968).

TREATMENT AND DISCUSSION

Parasitological examination revealed the presence of *A.galli* infection in the dead native bird. The adult worms were yellowish white in colour and semi transparent. Backyard chickens satisfy their food requirements by scavenging habits and they usually seek their food in the superficial layers of the soil, drains etc. which contain various insects that may act as intermediate hosts/vectors for parasitic infection (Permin *et al.*,1997). Microscopic examination of the intestinal contents revealed oval shape eggs with thick albuminous shells. The postmortem examinations revealed gross pathological lesions haemorrhagic enteritis and acute fibrinous enteritis with clotted blood, haemorrhagic and radish spot on the intestinal wall, inflammation and necrotic patches with consolidation of intestinal contents in infected birds. These observations are in accordance with Soomro *et al.* (2010). The histopathological examnination revealed degeneration of villi, necrosis and atrophy of muscular layers. The infected section showed total destruction of the surface layer and hyperplasia of the epithelium. The surrounding tissue was infiltrated with numerous inflammatory cells, necrosis and atrophy. The remaining flock of Native-birds was treated with Piperazine @ 100 mg/bird. Cleanliness and proper management were recommended.

REFERENCES:

Bowman, D.D. and Lynn, R.C. (1995). Georgis Parasitology for Veterinarians, 6th edn. W.B.Saunders company. Sydney

Kulkarni, C.M., Narladkar, B.W., Desh pande, P.D. (2001). J. Vet. Parasitol. 15:137-139

INDIAN J. FIELD VET Vol. 10 No. 1

Luna, A.G. (1968). Manual of Histological staining methods of the armed forces institute of Pathology. 3rd Edn. L.G.Mcgnow-Hill Book Co., New York, USA.

Permin, A., Magwisha, H., Kassuku, A.A., Nansen, P., Biggaard, M., Frandsen, F., Gibbons, L. (1997). *J.Helminthol.***71**:233-240

Singh, A., Anish, Y., Khajuria, J.K., Borkataki, S., Pande, N., Konwar, D., Katoch, R. (2009). Vet.Pract. 10: 181-182

Soomro, F., Arijo, A.G., Bilqees, F.M., Phulan, M.S. (2010). Ascaridia galli larval migration associated with enteritis in chicken. Proceedings of Parasitology. No.50pp.107-114

Soulsby E.J.L. (1983). Helminths, Arthropods and Protozoa of Domesticated Animals. 7th Edition. Lea & Febiger, Philadelphia. Pp.156-239