SHORT COMMUNICATION


TUBERCULOSIS IN A DRAKE
(Anas Platyrhynchos domesticus)

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In India, Zargar (1946) reported an outbreak of tuberculosis in ducks, while Gurumurthi (1960) observed fifteen cases during tuberculosis testing trials. A case of tuberculosis in a Drake is reported in view of its uncommon occurrence.

MATERIALS AND METHODS

A drake aged about 3 years received from a private farm without any history of ailment was necropsied. Formalinised tissues collected at necropsy, were embedded in paraffin and 4-6 µ thick sections stained by haematoxylin and eosin and Ziehl–Neelsen methods.

OBSERVATION AND DISCUSSION

The liver was slightly enlarged and weighed about 80 g. It was speckled with numerous greyish-white to yellowish discrete foci, measuring 0.1 to 0.4 cm in diameter on its surface and in the parenchyma. The larger foci were slightly raised from the surface of liver.

Histologically the liver presented a picture of miliary tuberculosis of varying stages. In the early tubercles, pale staining cells with vesiculated nuclei were found as a collection of epitheloid cells (fig. 1). In some, these had fused and formed a syncytia. Necrobiosis and caseation necrosis were prominent in some tubercles with epitheloid cells forming a syncytia at the outer zone (fig 2). Histiocytes, fibroblasts and occasionally a few giant cells along with daughter tubercles were present in these areas. Encapsulation with thick fibrous connective tissue along with a zone of histiocytes, lymphocytes and an occasional eosinophil was present in the larger coalesced nodules. Large vacuoles were present in these epitheloid cells. Central caseation and destruction of liver parenchyma was extensive in these coalesced tubercles.

The architecture of the liver was altered with dissociation and individualisation of hepatic cells. Extensive diffuse lymphocytic infiltration was also seen. Ziehl–Neelsen staining of sections revealed numerous granular acid fast organisms in clumps and also in groups dispersed in the caseated tubercles as well as in early tubercles.
Fig. 1  Note an early tubercle in the liver.  H & E x 320

Fig. 2  Note fibrous encapsulation with vacuolated epitheloid cells forming a syncytia  H & E x 320
The alimentary tract was the common portal of entry (Francis, 1958). However, no lesions were encountered in the intestinal tract in the present case. Francis (1958) observed that demonstrable lesions of tuberculosis were not apparent in the intestines of all birds affected by the disease. Gordon et al. (1941) observed lesions in lung, airsac, heart, intestine, gizzard, liver, spleen, kidney, peritoneum, omentum, thorax and abdomen, but in the present report the liver was the only organ affected. The liver was speckled with discrete foci and conformed to the miliary type described by Francis (1958). The microscopic picture was similar and consistent to that described in the literature except that calcification was absent in the present report.

SUMMARY

A case of tuberculosis affecting the liver of a duck is reported.

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REFERENCES


