

Pasteurellosis in a Duck

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Pasteurellosis is a contagious, widely distributed disease that affects domestic and wild birds. The diseases associated with morbidity and mortality in ducks is very limited in number in comparison to chicken. Reports regarding death due to pasteurellosis in ducks are sporadic and scarce.

Case History and Discussion

A carcass of male duck, aged 12 months with the history of fever, depression, anorexia, mucous discharge from the mouth and nostrils, diarrhea and increased respiratory rate was submitted to department of veterinary pathology with a request to conduct post mortem. External examination of the carcass revealed presence of ruffled feathers, decrease in body condition, soiling of cloaca and yellowish nasal discharge. When the carcass was cut open there was increased amount of peritoneal and pericardial fluids. Petechial and ecchymotic hemorrhages were common, particularly in subepicardial and subserosal locations, hemorrhages on the coronary band of heart, hemorrhages on air sac membranes adjacent to lungs were evident. The liver was swollen accompanied with multiple, small, necrotic foci. Gross examination of intestinal lumen revealed thickened yellowish necrotic mucous membrane and there were ecchymotic hemorrhages at the ileocecal junction. Impression smears from different sites of heart were taken on grease free glass slides and later stained by Wright's.

Microscopic examination of the smear revealed presence of Gram-negative bipolar coccobacillus. On the basis of the morphology and biochemical characteristics (indole positive) the bacterium was identified as *Pasteurella multocida*.

The major cause associated with high mortality in ducks supposed to be pasteurellosis (10.91%) and duck plague (54.55%) as reported by Baki *et al.* (1993). It usually occurs as a septicemia of sudden onset with high morbidity and mortality, but chronic and asymptomatic infections also occur. Louis *et al.* (1970) recorded unilateral ecchymosis hemorrhage at the site of esophageal-proventricular junction. However in the present case hemorrhage at the site of esophageal-proventricular junction were not observed. A small amount of petechiation along the coronary arteries, ecchymotic hemorrhages at the ileocecal junction, focal necrotic areas in the liver, and the air sacs adjacent to the lungs were thickened, yellowish and appeared necrotic. Brand and Docherty (1984) recorded similar type of lesions in ducks succumbed to duck viral enteritis (duck plague). Pasteurellosis caused by *Pasteurella multocida* is a contagious and endemic disease cause high morbidity and mortality in the affected domestic and wild birds (Ganti, 2003). Thus proper care and early diagnosis of the disease helps in preventing the possibilities of its occurrence and spread of disease within the flock and to other domestic birds.

References

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