AFLATOXICOSIS IN DOMESTIC GOOSE (ANSER ANSER DOMESTICUS)

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INTRODUCTION: Aflatoxins are biologically active hepatotoxic metabolites produced by certain strains of the fungi *Aspergillus flavus* and *Aspergillus parasiticus*, commonly formed during the storage of food contaminated by fungi. The toxic, carcinogenic, and teratogenic effects of aflatoxins result from the binding of toxic intermediates to DNA, RNA, or cellular proteins. This report aims to describe a case of aflatoxicosis in a domestic goose (*Anser anser domesticus*). **CASE REPORT:** A one-year-old female goose (*Anser anser domesticus*) was presented to a Veterinary Hospital. It was kept as a pet and fed melon, corn grits, grass, dandelion, radicchio, and cauliflower. The owner reported symptoms including weakness, anorexia, and diarrhea. The main laboratory findings included neutrophilia, monocytosis, and elevated aspartate aminotransferase (AST) levels. The bird was hospitalized and treated with fluid therapy, vitamins, and antibiotics. Although initial improvement was observed, the condition quickly deteriorated, and the bird died after three days of hospitalization. A necropsy was subsequently performed. Macroscopic findings included pale mucous membranes, yellowish intracavitary fat, an enlarged and icteric liver with accentuated lobular pattern, friable kidneys, granular material in the air sacs, and pulmonary hyperemia. Tissue samples from all organs were collected, fixed in 10% buffered formalin, processed using conventional histological techniques, and stained with hematoxylin and eosin. Microscopically, the liver showed architectural loss, diffuse megalocytosis, fatty degeneration and multifocal hepatocellular necrosis, bile duct hyperplasia, intrahepatic cholestasis, and atypical hepatocellular mitoses. Other findings included pulmonary atelectasis, aerosacculitis, tracheitis, nephrosis, and perivascular and perineuronal brain

edema. **DISCUSSION:** The hepatic findings were consistent with aflatoxicosis and aligned with reports in other species. The respiratory tract lesions may have resulted from immunosuppression, predisposing the bird to secondary infections. The brain edema was likely a consequence of hepatic injury. Pyrrolizidine alkaloid poisoning, the main differential diagnosis for aflatoxicosis, was ruled out. It is worth noting that aflatoxicosis has not been previously reported in anseriforms. This case highlights the importance of histopathology in reaching a diagnosis. However, qualitative and quantitative detection of aflatoxins in food and/or visceral samples should be performed whenever possible.

Keywords: Poisoning; Pathology; Liver; Bird; *Anser anser domesticus*