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Pet Bird Medicine: Case Report—

Congenital Extra-Hepatic Biliary Cyst in a Congo African Grey Parrot (Psittacus erithacus erithacus)

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SUMMARY. An 8-week-old Congo African Grey Parrot (*Psittacus erithacus erithacus*) was presented with a history of abdominal enlargement since hatch. Trans-illumination of the abdomen suggested that the enlargement was due to marked hepatomegaly. This was supported by radiographic and ultrasonic examination. Postmortem examination revealed an extra-hepatic biliary cyst 4 cm in diameter.

RESUMEN. Quiste biliar extra hepático congénito en un loro Congo Africano Gris (Psittacus erithacus erithacus).

Un loro Congo Africano Gris (*Psittacus erithacus erithacus*) de 8 semanas de edad presentó, desde su nacimiento, una historia de inflamación del abdómen. La transiluminación de la cavidad abdominal sugirió que la inflamación era debida a una prominente hepatomegalia. Este diagnóstico fue apoyado por examenes radiográficos y de ultrasonido. La autopsia reveló un quiste biliar extra hepático de 4 centímetros de diámetro.

Abdominal enlargement in psittacines may be the result of a number of pathological and non-pathological factors, including obesity, egg binding, ascites, peritonitis, neoplasia, ovarian or renal cysts, and aerophagia (3). In young psittacines, however, the number of differentials is decreased because of the age of the bird and its limited exposure to other birds. Differential diagnoses for younger birds include hepatomegaly due to metabolic or infectious etiologies, abdominal hernia, and omphalitis. This case describes an unreported cause of abdominal enlargement in a young psittacine.

CASE REPORT

An 8-week-old Congo African Grey Parrot (*Psittacus erithacus erithacus*) with a history of abdominal enlargement since hatch was referred to the Veterinary Medicine Teaching Hospital for further evaluation. The bird was reported to have a good appetite and normal feces. Other clutch mates appeared normal. Body weight was 716 g, notably greater than that reported for adult African Grey Parrots (1). There were increased respiratory sounds over the dorsal air sacs and paranasal sinuses. The pendulous abdomen was markedly distended and firm on palpation. Abdominal trans-illumination revealed a space-occupying mass that displaced jejunal loops along its periphery. Survey radiographs and an ultrasound examination were performed. On both lateral and ventrodorsal views (Fig. 1), the abdomen was markedly distended by a fluid density. A large abdominal mass was considered more likely than ascites because of dorsal and caudal displacement of adbominal viscera. On ultrasound examination (Fig. 2), a large hypoechoic, homogenous mass was visible with a small hyperechoic density displaced dorsally. Because of the lack of acoustic enhancement distal to the large mass, a soft-tissue mass was considered more likely than a fluid-filled cyst. The radiographic conclusion was massive hepatomegaly with displacement of the remaining ab-

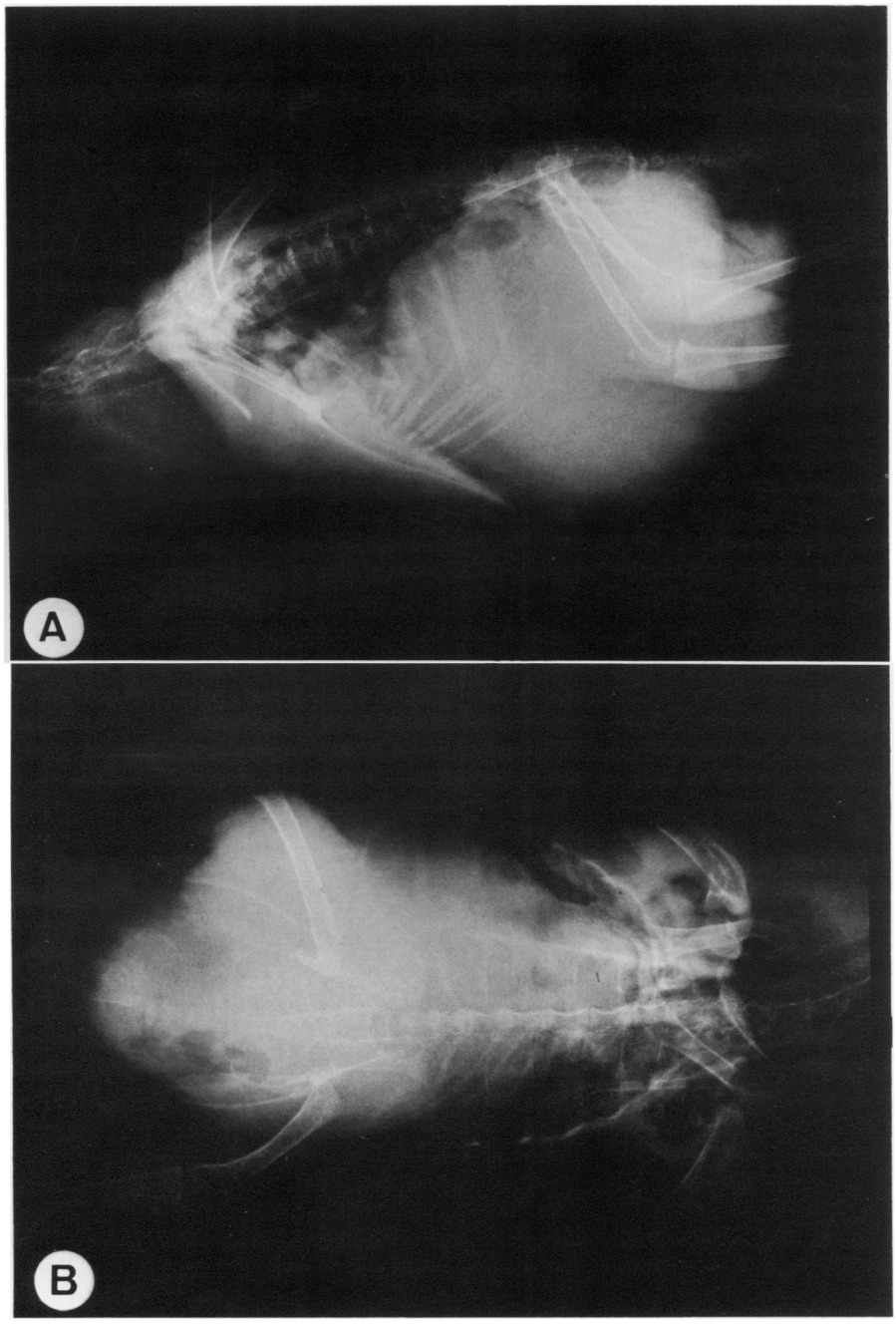

Fig. 1. Lateral view (A) of an immature Congo African Grey Parrot with severe abdominal distension. Note the dorsally displaced gas-filled bowel loops. Ventro-dorsal radiograph (B) showing the lack of the normal "hour-glass" shape of the heart and abdominal organs.

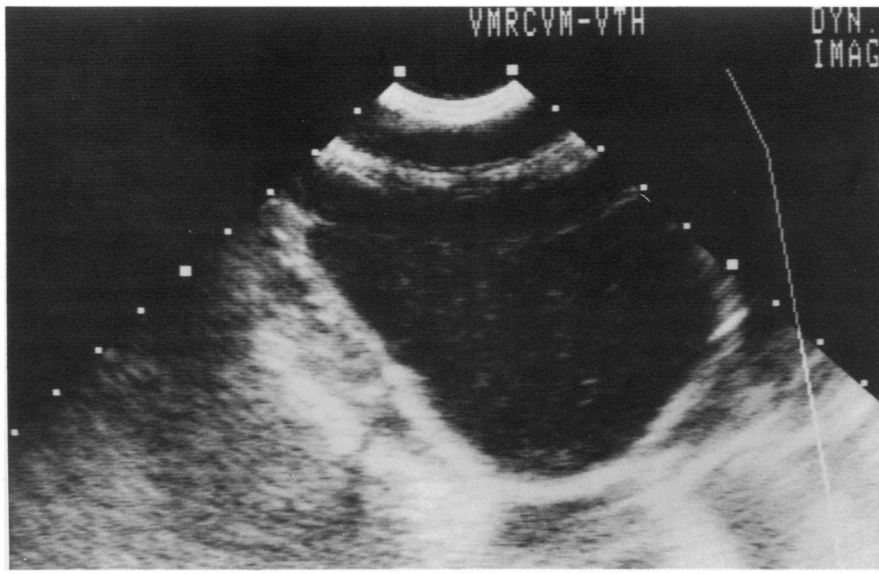

Fig. 2. Abdominal sonogram showing enlarged hypoechoic mass with no distal acoustic enhancement. A smaller hyperechoic mass is visible dorsal to this mass.

dominal viscera. A bilateral nasal-choanal flush was performed using 0.85% sterile saline. Recovered saline was submitted for culture and sensitivity. Cultures revealed *Pasteurella hemolytica* and *Aeromonas salmonicida.*

No other diagnostic tests were performed, although the possibility of a fine-needle aspirate and eventual surgery was discussed. Oral amoxicillin was prescribed for the upper respiratory infection until true sensitivity of the organisms was determined.

Approximately 1 week later, the bird died and was submitted for necropsy. There was caudal displacement of the intestinal tract, dorsal movement of the proventriculus and gizzard, and lateral hepatic compression by a fluid-filled mass 4 cm in diameter. The mass had a 1-to-3-mm-thick fibrous connective tissue wall and was filled with viscous, clear, yellow fluid containing a small amount of dark-green granular material interpreted as inspissated bile. The cyst capsule was continuous with the hepatic capsule on the caudal aspect of the liver. Aerobic culture of the cyst fluid resulted in no growth. Total bilirubin of the fluid was 2.6 mg/dl, approximately 10 times that of normal psittacine sera (4), suggesting that the cyst was connected to the biliary system.

Histologically, the cyst wall consisted of dense, irregular connective tissue not associated with an epithelial lining or any active inflammatory change. Although no epithelial lining was seen, it was hypothesized that such a lining had once been present but had sloughed into the cyst lumen as a result of pressure necrosis. No lesions were found in the crop, proventriculus, gizzard, small intestine, liver, kidney, spleen, brain, lung, heart, or uropygial gland.

Congenital hepatic cysts occur in all species. Although the pathogenesis is unknown, it is believed that this malformation arises from embryonic bile ducts that lack a connection to the main biliary system. These congenital cysts must be differentiated from those caused by parasites or biliary cystadenomas (2). Because of the age of the bird, the presence of abdominal enlargement since hatch, and no evidence of parasites, it was concluded that this extra-hepatic cyst was congenital.

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