Foreign Body: The Value of Imaging

A 13-month-old neutered female domestic shorthair cat was presented with a 6-day history of vomiting, anorexia, and lethargy. Degenerative left shift with bands, segmented neutrophils, and toxic changes were noted on blood analysis. Serum biochemical parameters were consistent with hepatic and/or posthepatic hyperbilirubinemia, as well as moderate dehydration and/or renal failure. In the ventrodorsal radiographic view, a heterogeneous structure with sharp, straight cranial and caudal borders was superimposed on the duodenum distal to the cranial flexure. Sonographically, the cystic and common bile ducts were markedly dilated, especially distally; the bile duct diameter was 6 mm. In addition, an intraluminal structure with a cylindrical shape was visible in the duodenum at the level of the papilla. At surgery dilatation of the common bile duct was detected, and a soft duodenal foreign body was identified. The foreign body (an ear plug) was pushed back into the stomach and extracted through the mouth without any incision. Extrahepatic biliary obstruction is uncommon in cats and has been seen with cholangiohepatitis with or without inspissation of bile, acute necrotizing pancreatitis, extra- or intraluminal masses, cholelithiasis, diaphragmatic herniation, inflammation of adjacent structures, liver fluke infestation, congenital abnormalities of the extrahepatic biliary tract, and as reported here, secondary to a duodenal foreign body. Extrahepatic biliary obstruction can be diagnosed in cats when the bile duct diameter exceeds 5 mm. Sonography can also provide useful information about location and cause of obstruction.

COMMENTARY: This article reminds us of the usefulness of diagnostic imaging, such as ultrasonography and radiography, in differentiating causes of hepatobiliary disease. These modalities are especially helpful in differentiating icterus caused by biliary obstruction from diffuse liver disease. In the hands of an experienced sonographer, abdominal ultrasonography allows visualization of the biliary ducts, vascular anatomy, and liver parenchyma. As in this case, the results of ultrasonography often provide an accurate presumptive diagnosis and guidance toward choosing the most appropriate next management steps. This report also illustrates how relatively routine problems can present with atypical signs and manifestations, providing a continuing clinical challenge.—*Justin M. Goggin, DVM, Diplomate ACVR (Radiology)*

Imaging diagnosis—Extrahepatic biliary tract obstruction secondary to a duodenal foreign body in a cat. Santa DD, Schweighauser A, Forterre F, Lang J. ***VET RADIOL ULTRASOUND*** 48:448-450, 2007.