

Surgical Management of Common Bile Duct Obstruction in a Dog

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SUMMARY:

A 7 year-old female spayed Presa Canario was presented to the Cornell University Hospital for Animals after a 10-day history of elevated liver enzymes, vomiting, and inappetance. Initial diagnostics confirmed increased hepatobiliary enzymes (ALT, AST, ALP, GGT), hyperbilirubinemia, hypercholesterolemia, hypoalbuminemia, and low BUN. Single organ ultrasound showed a mottled liver and liver aspirates were consistent with cholestasis. No evidence of bile duct obstruction was discovered and the dog was managed medically for non-specific infectious and toxic causes of acute liver disease using antibiotics and liver supportive medications. Liver values were monitored daily and continued to worsen while the dog also declined clinically. Ultrasound was repeated 5 days after admission and revealed significant dilation of extra and intra-hepatic bile ducts. This information combined with worsening clinical signs and bloodwork values justified exploratory laparotomy. The cause of bile duct obstruction was determined to be a cholelith within the ductus choledochus and choledocholithotomy and cholecystectomy were performed. Histopathology showed cholecystitis and portal hepatitis with a mixed inflammatory cell population (lymphocytes, plasma cells, and neutrophils). Bile culture revealed growth of *Escherichia coli* and B-hemolytic *E. coli*. The dog improved clinically and hematologically and was discharged from the hospital four days after surgery with antibiotics and liver supportive medications. The patient has been monitored by the regular veterinarian and continues to do well four months after surgery. The most recent blood panel was normal other than ALT (129 U/L; ref 22-103).

Extra-hepatic bile duct obstruction is a serious medical condition that must be treated aggressively and most often requires surgical intervention. The formation of bile stones is usually attributed to inflammation of the gallbladder and therefore the gallbladder is often removed during surgery to prevent the formation of stones in the future. This patient's gallbladder was obviously thickened and inflamed at surgery, further supporting the decision to remove it. The cause of the gallbladder inflammation was attributed to ascending bacterial infection but a predisposing cause of ascending infection of the bile system was not identified.

SELECTED REFERENCES:

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