

Gallbladder Mucoceles in Border Terriers

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In the Literature

Allerton F, Swinbourne F, Barker L, et al. Gall bladder mucoceles in border terriers. *J Vet Intern Med.* 2018;32(5):1618-1628.

FROM THE PAGE ...

Gallbladder mucoceles (GBMs) are a common cause of biliary disease in dogs. Several breed predispositions have been reported, and several risk factors, including endocrine disease (ie, hyperadrenocorticism, hypothyroidism) and hyperlipidemia, have been recognized.^{1,2} Multiple factors, including genetic and epigenetic factors, likely contribute to GBM formation.

This study from the United Kingdom sought to evaluate GBM association with the border terrier breed. Medical records of 99 dogs (including 51 border terriers) with a diagnosis of GBM confirmed via ultrasonography were retrospectively reviewed and compared with a control group of 87 border terriers without GBM. The primary objective of this study was to determine whether border terriers have a breed predisposition to GBM and whether there are risk factors, clinical features, and outcomes specific to this breed. Because the odds of diagnosing GBM in a border terrier in this evaluation were 85 times that of all other breeds, a strong case for breed predilection can be made. This higher percentage may also be reflective of the increasing popularity of the breed and subsequent loss of genetic diversity in the pedigree in the United Kingdom. Concurrent endocrinopathies were infrequent in the reported cases, suggesting they may play a minimal role in GBM formation in this breed. Serum chemistry findings, particularly alkaline phosphatase and gamma-glutamyl transferase, in all study dogs were similar to those previously described for dogs with GBM.³ The surgical case fatality rate at 7 days was 11.7%.

... TO YOUR PATIENTS

Key pearls to put into practice:

1 A breed predisposition to GBMs in Shetland sheepdogs, American cocker spaniels, Chihuahuas, Pomeranians, and miniature schnauzers has been reported.^{2,4} The addition of border terriers to this list may be warranted.

2 Dogs presented with elevated cholestatic liver enzymes (ie, alkaline phosphatase, gamma-glutamyl transferase) along with vomiting, hyporexia, lethargy, and/or icterus warrant evaluation of the gallbladder to rule out GBM.

3 Although not observed in this study, there have been reports on the negative effects of gallbladder rupture on survival. Thus, rapid intervention is warranted in GBM patients, as survival rates of GBM patients that underwent cholecystectomy prior to rupture are good.

4 Although medical management of GBM is possible with appropriate case selection, patients that are candidates for medical management are rarely seen, as GBM patients are often subclinical until disease is advanced, warranting surgical intervention.

References

1. Mesich ML, Mayhew PD, Paek M, Holt DE, Brown DC. Gall bladder mucoceles and their association with endocrinopathies in dogs: a retrospective case-control study. *J Small Anim Pract.* 2009;50(12):630-635.
2. Kutsunai M, Kanemoto H, Fukushima K, Fujino Y, Ohno K, Tsujimoto H. The association between gall bladder mucoceles and hyperlipidemia in dogs: a retrospective case control study. *Vet J.* 2014;199(1):76-79.
3. Aguirre A. Diseases of the gallbladder and extrahepatic biliary system. In: Ettinger SJ, Feldman EC, Côté E, eds. *Textbook of Veterinary Internal Medicine.* 7th ed. St. Louis, MO: Elsevier Saunders; 2017:1674-1680.
4. Aguirre AL, Center SA, Randolph JF, et al. Gallbladder disease in Shetland sheepdogs: 38 cases (1995-2005). *J Am Vet Med Assoc.* 2007;231(1):79-88.