

Hemoabdomen in Large vs Small Dogs

Elke Rudloff, DVM, DACVECC, cVMA

Lakeshore Veterinary Specialists

Glendale, Wisconsin

In the Literature

Fleming J, Giuffrida MA, Runge JJ. Anatomic site and etiology of hemorrhage in small versus large dogs with spontaneous hemoperitoneum. *Vet Surg.* 2018;47(8):1031-1038.

FROM THE PAGE ...

Spontaneous hemoperitoneum (SH) can occur as a result of a ruptured mass (neoplastic or nonneoplastic), organ torsion, organ necrosis, and/or coagulopathy. Malignant neoplasia has been reported to be the most common cause of SH in dogs.¹ Results from a few retrospective reviews of dogs with SH have led some clinicians to advise pet owners that the potential for malignancy is high in SH patients with a splenic tumor.¹⁻³ Although making this recommendation may be intended to help owners decide whether they should proceed with emergency surgery or euthanasia, it should be noted that these studies reported on a small number of dogs of different sizes.

Dogs that had undergone diagnostic testing and had SH unrelated to a coagulopathy ($n = 637$) were evaluated to determine whether the anatomic source of hemorrhage differed between small (≤ 44.1 lb [≤ 20 kg]) and large (> 44.1 lb [> 20 kg]) dogs. The authors found that, although the most common source of hemorrhage in dogs of all sizes was from the spleen, the prevalence* of splenic-related SH was greater in large dogs. Hemangiosarcoma was less prevalent in small dogs than in the general population of dogs with bleeding splenic tumors. It was also determined that dogs with nonsplenic causes of SH were less likely to undergo surgery.

These results illustrate that a diagnosis or prognosis ultimately cannot be provided without the expense of advanced imaging and surgery. Although statistics can help answer direct questions from the owners of a critically ill pet, it is important to consider the individual patient.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Hemangiosarcoma and other malignancies are more prevalent than other conditions as the cause of SH in dogs.
- 2** Small dogs with SH may have a lower prevalence of hemangiosarcoma than large dogs.
- 3** Abdominal ultrasonography and/or CT may provide the owner with information on source and extent of lesions that can aid in decision-making for a pet with SH.

*Prevalence identifies the proportion of subjects that *have* a condition at or during a period of time. This is different from incidence, which identifies the proportion or rate of subjects that *develop* a condition during a period of time.

References

1. Pintar J, Breitschwerdt EB, Hardie EM, Spaulding KA. Acute nontraumatic hemoabdomen in the dog: a retrospective analysis of 39 cases (1987-2001). *J Am Anim Hosp Assoc.* 2003;39(6):518-522.
2. Hammond TN, Pesillo-Crosby SA. Prevalence of hemangiosarcoma in anemic dogs with a splenic mass and hemoperitoneum requiring a transfusion: 71 cases (2003-2005). *J Am Vet Med Assoc.* 2008;232(4):553-558.
3. Lux CN, Culp WT, Mayhew PD, Tong K, Rebhun RB, Kass PH. Perioperative outcome in dogs with hemoperitoneum: 83 cases (2005-2010). *J Am Vet Med Assoc.* 2013;242(10):1385-1391.