



## **EMERGENCY MEDICINE:**

### **Hemoabdomen**

**Indications**

A hemoabdomen is most often associated with the rupture of a splenic mass; however, it can also be seen secondary to hepatic masses, following abdominal trauma, or in animals affected with a coagulopathy. Whether acute or chronic in nature, once clinical signs arise, the animal is in need of prompt diagnosis and treatment.

**When to think of hemoabdomen?**

Consider this condition when any middle-aged to older large breed dog, especially Golden Retrievers, German Shepherds or mixed breed dogs, presents with a history of inappetence, lethargy, weakness, collapse, abdominal distension or labored breathing.

**What are the signs?**

Clinical signs often include pale mucus membranes, tachycardia, labored breathing, abdominal distension, poor pulse quality with or without pulse deficits, weakness and/or collapse. A palpable mid-abdominal mass may be noted dependant on the size of the mass and degree of abdominal effusion present.

**Diagnosis**

Initial assessment includes measuring the patient's PCV/TS, and if possible, electrolytes, glucose, BUN, and the acid-base status. Additional blood should be submitted for a CBC, general health panel and bleeding times. An abdominocentesis should be performed to confirm the diagnosis of a hemoabdomen. See the January 18, 2006 edition of Animal Matters on performing this procedure. The PCV of the abdominal fluid obtained can estimate the chronicity of the condition. If the abdominal fluid PCV is nearly equal to that of the peripheral blood, it is likely associated with an acute hemorrhage. Thoracic radiographs (a three-view met-check) and an abdominal ultrasound are valuable in evaluating the animal for evidence of metastatic disease which would likely impact the patient's long-term prognosis and may alter the owner's decision-making process.

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**Treatment**

Appropriate treatment of the hypovolemic shock is the most important first step. Resuscitative therapy should be given to each patient based upon their individual needs. Studies have shown that over-resuscitation may be detrimental in cases of hemorrhagic shock. Give  $\frac{1}{4}$  your estimated shock dose over about 15 minutes, combined with small doses of hetastarch if needed (2-5 mls / kg) and reassess the pet's condition and blood pressure. The goal at this stage is to maintain perfusion the internal organs by assuring a MAP of 60 mmHg or systolic blood pressure of ~ 80 mmHg. Replacing blood loss with excessive amounts of fluids may result in excessive hemodilution and may exacerbate the hemorrhagic condition. This dosing protocol of shock therapy (hypotensive resuscitation) can then be repeated up to four times and titrated on an "as needed basis" until the above blood pressure values are met. Provide support for the anemia (whole blood, packed red cells, or Oxyglobin) if possible. Once the animal is stable, it should be taken to surgery as soon as possible in order to control the bleeding. More on the surgery in a future edition.

**Questions?**

Our 24/7 Emergency and Critical Care service is open year round and staffed by highly trained doctors and technicians. MVS attracts the top veterinarians from Canada and the United States for its positions and the ER doctors have access to specialists 24 hours a day, 7 days a week. Contact them at (248) 371-3713 or (248) 354-6660 with questions about your cases.

**LOCATIONS**

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