HEMOABDOMEN

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**HEMOABDOMEN OBSERVED**

Patient stable (ie, heart rate <120 bpm, blood lactate <18 mg/dL, alert and oriented)?

**NO**

**TREATMENT**
- Administer crystalloids (20-30 mL/kg) and hypertonic saline (3-5 mL/kg)
- Perform:
  - ± blood transfusion
  - ± thoracic and abdominal radiography and POCUS<sup>*</sup>
  - ± urgent exploratory surgery, splenectomy, liver mass removal, or other mass removal
- Consider immediate referral for ultrasonography and stabilization

**YES**

History of trauma?

**NO**

**TREATMENT**
- Provide monitoring, treatment, and supportive care
- Recheck peripheral PCV in 2-6 hours
- Perform imaging and diagnostics (eg, CBC, serum chemistry profile, urinalysis, coagulation testing)
- Evaluate other body systems

**YES**

Mass observed on POCUS<sup>*</sup>?

**NO**

**TREATMENT**
- Perform thoracic radiography (eg, to evaluate for metastatic disease)
- Consider exploratory surgery
- Evaluate PT/aPTT; consider performing thromboelastography and/or VCM to evaluate for fibrinolysis

**YES**

PT/aPTT <20% prolonged

**TREATMENT**
- Perform exploratory surgery, splenectomy, liver mass removal, or other mass removal
- Consider blood transfusion
- Provide supportive care
- Monitor for postoperative ventricular ectopy

**NO**

PT/aPTT >20% prolonged

**TREATMENT**
- Treat with plasma or fresh whole blood
- Consider ε-ACA therapy (50-100 mg/kg IV every 6 hours)
- Proceed to surgery after treatment
- Provide supportive care
- Monitor for postoperative ventricular ectopy

<sup>*</sup>All stable hemoabdomen patients have the potential to decompensate. Heart rate, mucous membrane color, blood pressure, packed cell volume/total solids, mentation, pulse quality, and capillary refill time should be closely monitored.
NO MASS OBSERVED ON POCUS

Evaluate PT/aPTT

Coagulation times increased

TREATMENT
- Increased PT and aPTT: Consider anticoagulant rodenticide toxicity (rare cause of hemoabdomen)
- Increased aPTT: Consider DIC
- Perform transfusion with fresh frozen plasma or fresh whole blood
- Administer vitamin K (5 mg/kg SC every 24 hours) if PT is extremely elevated (eg, >2 times the upper limit of the reference range)

Coagulation times normal

Gallbladder wall edema (suggestive of anaphylaxis, a cause of hemoabdomen) present?

YES

TREATMENT
- Treat for anaphylaxis (epinephrine [0.005-0.01 mg/kg IM or 0.1-1 µg/kg/min IV])
- Monitor closely

NO

TREATMENT
- Pursue CT and advanced diagnostics

ACA = aminocaproic acid
aPTT = activated partial thromboplastin time
DIC = disseminated intravascular coagulation
PCV = packed cell volume
POCUSa = point-of-care ultrasonography (abdomen)
PT = prothrombin time
VCM = viscoelastic coagulation monitoring