

HEMORRHAGIC GASTROENTERITIS

What is canine hemorrhagic gastroenteritis?

Hemorrhagic gastroenteritis (HGE) is a fairly common disorder of dogs characterized by the sudden onset of vomiting and bloody diarrhea, leading to dehydration, depression, collapse and shock. Diarrhea is often profuse, and looks like raspberry jam. The vomit may contain various amounts of bright, red blood, or digested blood that resembles coffee grounds. Young to middle aged adult dogs of toy and miniature breeds may be affected more frequently. The disease seems to most commonly affect miniature poodles, miniature schnauzers, dachshunds and Yorkshire terriers. Symptoms are sudden and severe.

How is HGE diagnosed?

The diagnosis of HGE is usually made based on bloodwork and symptoms. Usually, fever is not present. Some possible causes of HGE include bacterial infection or imbalance and stress. Sometimes there is no identifiable cause. Evaluation usually requires a complete blood count, biochemical analysis of the blood, urinalysis, and fecal tests. In some cases, further testing might be needed, such as x-rays, coagulation tests, or ultrasound of the abdomen.

The packed cell volume or hematocrit (measurement of red blood cells) is often above 60% with normal to low blood protein in dogs with HGE. Most normal dogs have a hematocrit of 35-55%. The elevated hematocrit provides an important clue that the patient may have HGE.

HE must be distinguished from other causes of bloody vomiting and diarrhea, such as ulcers, trauma, gastrointestinal tumors, gastrointestinal foreign bodies, infectious diseases and coagulation disorders.

What causes it?

The exact cause of HGE remains unknown. A bacterium called *Clostridium perfringens* has been isolated from cultures of intestinal contents in some dogs with HGE, but its exact role in the syndrome has not been identified.

How is it treated?

Dogs with HGE will appear severely ill and, if untreated, may die. In most cases, the disorder appears to run its course in a few days if the dog is given appropriate supportive care. Intravenous fluid therapy and antibiotics provide the foundation of HGE therapy. Drugs for nausea are also given as needed. Food is withheld at first, and then a bland diet is introduced. Once the dog is doing well, he/she can often be switched back to a regular diet over several days. Subcutaneous fluids (given under the skin) are not usually considered adequate to meet the significant fluid requirements of most dogs with HGE, but might be considered in some mild cases.



If intravenous fluid therapy is not given, the dog's red blood count will continue to elevate due to dehydration and contraction of the spleen. In this situation, the dog is at risk for a potentially fatal clotting disorder called disseminated intravascular coagulation (DIC). Once DIC has begun, it is often irreversible and may result in death.

What is the prognosis?

The good news is that if treated promptly, most patients with HGE respond very well. Recurrences are possible in an individual dog, but they are not common. Some dogs develop repeated episodes of HGE, sometimes precipitated by stressful events. Special diet, probiotics and sometimes preventative antibiotics in stressful situations can help to keep episodes to a minimum.

What is the public health significance?

Canine HGE poses no known health risk to humans or cats, and is not usually contagious to other dogs.

References:

Blount Wendy DVM, PracticalVetMed
Brooks Wendy C, DipABVP, VeterinaryPartner.com
Clement Celeste ACVIM, VetCentric
Homecare Handouts
Ward Ernest DVM, Lifelearn Inc.
Wellness Handouts