

Hemorrhagic Gastroenteritis in Dogs

What is canine hemorrhagic gastroenteritis?

Hemorrhagic gastroenteritis (HGE) is an acute disorder of dogs characterized by vomiting and bloody diarrhea. Most cases occur suddenly without warning in otherwise healthy dogs. The main and most disturbing clinical sign is large amounts of bloody diarrhea, very often bright red. Some dogs may have a painful abdomen, decreased appetite, lethargy (fatigue), or fever. HGE can affect any breed, age, size, or gender of dog, but it is most common in small- and toy-breed dogs. Young miniature French poodles, miniature schnauzers, and Yorkshire terriers seem to be more commonly affected. Other breeds commonly affected include the Pekingese, cavalier King Charles spaniel, Shetland sheepdog, and poodle.



What causes HGE?

"Stress, anxiety, and hyperactivity are thought to be possible contributing factors in many cases of canine hemorrhagic gastroenteritis."

The exact cause of HGE remains unknown (idiopathic). It may be related to dietary indiscretion (ingesting non-food items or even dramatically different foods than what the dog is accustomed to), immune-mediated disease, toxins, or pancreatitis. Stress, anxiety, and hyperactivity are thought to be possible contributing factors in many cases. Recent research indicates that HGE may be an allergic reaction (food or inhaled). Intestinal parasites and bacteria may also be causes. Dogs who experience HGE may be more prone to developing HGE in the future.

How is HGE diagnosed?

The diagnosis of HGE may be challenging and may ultimately require intestinal biopsies in persistent cases. Some possible causes of HGE include stomach or intestinal ulcers, trauma, gastrointestinal tumors or obstruction, foreign bodies, infectious diseases such as canine parvovirus infection, and coagulation disorders. Evaluation usually requires a complete blood count (CBC), biochemical analysis of the blood, urinalysis, radiographs (x-rays), coagulation or clotting tests, fecal evaluation, and ultrasound or endoscopic examination of the gastrointestinal tract.

The packed cell volume (PCV) or hematocrit (HCT)—a measurement of the proportion of red blood cells—is often greater than 60% in dogs with HGE. Most dogs have a normal HCT of 37% to 55%. An elevated HCT in combination with a low or normal total solids (TS) is an important clue that a dog may have HGE. Blood bicarbonate levels, blood pH levels, and serum chemistries also give indicators that HGE may be present. Diagnosis is often a process of eliminating other causes of bloody stools and gastrointestinal distress.

How is HGE treated?

"Dogs with HGE will appear severely ill and, if left untreated, may die."

Dogs with HGE will appear severely ill and, if left 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 with potassium and electrolyte supplementation provides the foundation of HGE therapy. Subcutaneous fluids (given under the skin) are not usually considered adequate to meet the significant fluid requirements of most dogs with HGE. Most dogs are not fed during the first 24 hours of treatment and are often given antibiotics (such as ampicillin, enrofloxacin, or metronidazole) to combat potential secondary intestinal infection. Additional therapy for HGE may include gastrointestinal protectants (sucralfate) and anti-vomiting medications. In severe cases, plasma or colloids may be needed to correct severely low blood protein levels.

If intravenous fluid therapy is not given, the dog's red blood cell count will continue to elevate because of dehydration. 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.



Can HGE be prevented?

Since the cause is unknown, it is difficult to give advice on prevention. However, reasonable suggestions are to feed a high quality commercial diet, refrain from giving your dog extra foods or treats he may not be accustomed to, use parasite preventive medications as directed by your veterinarian, and generally provide a low stress environment.

This client information sheet is based on material written by: Ernest Ward, DVM

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