

## Research Article

# Herbal Treatment for Gastric Dilatation Volvulus in Animals

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### Abstract

Gastric dilatation volvulus, also known as gastric dilation, twisted stomach, or gastric torsion, is a medical condition that affects animals in which the stomach becomes overstretched and rotated by excessive gas content. Thus, the present study was designed to evaluate the efficacy of ethnoveterinary medicine formulation in GDV disease in animals and to improve its general health condition.

**Keywords:** Ethno veterinary; Gastric dilatation; Stomach; Volulu

### Introduction

Gastric dilatation volvulus, also known as gastric dilation, twisted stomach, or gastric torsion, is a medical condition that affects animals in which the stomach becomes overstretched and rotated by excessive gas content. The word bloat is often used as a general term to mean gas distension without stomach torsion (a normal change after eating), or to refer to GDV [1]. GDV is a life-threatening condition in animals that requires prompt treatment. It is common in certain breeds; deep-chested breeds are especially at risk. Mortality rates in animals range from 10 to 60%, even with treatment [1]. With surgery, the mortality rate is 15 to 33 percent [2].

### Symptoms

Symptoms are not necessarily distinguishable from other kinds of distress. An animal might stand uncomfortably and seem to be in extreme discomfort for no apparent reason. Other possible symptoms include firm distension of the abdomen, weakness, depression, difficulty breathing, hyper salivation, and retching without producing any vomitus (non-productive vomiting). Many animals with GDV have cardiac arrhythmias (40% in one study) [3]. Chronic GDV in animals, include symptoms such as loss of appetite, vomiting, and weight loss [4].

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### Causes

Gastric dilatation volvulus in animals is likely caused by a multitude of factors, but in all cases the immediate prerequisite is a dysfunction of the sphincter between the oesophagus and stomach and an obstruction of outflow through the pylorus [5]. Some of the more widely acknowledged factors for developing GDV include increased age, breed, having a deep and narrow chest, eating foods, such as kibble, that expand in the stomach, overfeeding, too much water consumption in a small period of time before or after exercise, and other causes of gastrointestinal disease and distress. The risk of bloat in animals perceived as happy by their owners is decreased, and increased in animals perceived as fearful. This may be owing to the physiological effects of the animal's personality on the function and motility of the gastrointestinal system [6]. Alternatively, the animals may become unhappy/uncomfortable as a consequence of the conditions that lead up to exhibiting bloat. Dogs with inflammatory bowel disease may be at an increased risk for bloat [7].

### Dietary factor

One common recommendation in the past has been to raise the food bowl of animal when they eat, but this may actually increase the risk of GDV [8]. Eating only once daily [9] and eating food consisting of particles less than 30 mm (1.2 in) in size also may increase the risk of GDV [10]. One study looking at the ingredients of dry animal's food found that while neither grains, soy, nor animal proteins increased risk of bloat, foods containing an increased amount of added oils or fats do increase the risk, possibly owing to delayed emptying of the stomach [10].

### Diagnosis

A diagnosis of GDV is made by several factors. The breed and history often gives a significant suspicion of the condition, and a physical examination often reveals the telltale sign of a distended abdomen with abdominal tympani. Shock is diagnosed by the presence of pale mucous membranes with poor capillary refill, increased heart rate, and poor pulse quality. Radiographs (X-rays), usually taken after decompression of the stomach if the dog is unstable, shows a stomach distended with gas. The pylorus, which normally is ventral and to the right of the body of the stomach, is cranial to the body of the stomach and left of the midline, often separated on the X-ray by soft tissue and giving the appearance of a separate gas-filled pocket (double-bubble sign) [4].

### Prevention

Recurrence of GDV attacks can be a problem, occurring in up to 80% of dogs treated medically only (without surgery) [8]. To prevent recurrence, at the same time the bloat is treated surgically, a right-side gastropexy is often performed, which by a variety of methods firmly attaches the stomach wall to the body wall, to prevent it from twisting inside the abdominal cavity in the future. While dogs that have had gastropexies still may develop gas distension of the stomach, a significant reduction in recurrence of gastric volvulus is seen.

Of 136 dogs that had surgery for gastric dilatation-volvulus, six that did have gastropexies had a recurrence, while 74 (54.5%) of those without the additional surgery recurred [9]. Gastropexies are also performed prophylactically in dogs considered to be at high risk of GDV, including dogs with previous episodes or with gastrointestinal disease predisposing to GDV, and dogs with a first-order relative (parent or sibling) with a history of it [8]. Precautions that are likely to help prevent gastric dilatation-volvulus include feeding small meals throughout the day instead of one big meal, and not exercising immediately before or after a meal [10].

## Materials and Methods

We conducted this research paper by observing the different types of reviews, as well as conducting and evaluating literature review papers.

### Herbal Treatment

Ethno veterinary formulation (for oral administration)

### Ingredients

S. No	Ingredients	Quantity
1	Sesame oil	50 ml
2	Asafoetida resin	1 ml
3	Stabilizer base (gum acacia)	q.s
4	Purified water	q.s

### Procedure

1. Weigh all the ingredients accurately as specified by the given quantities
2. We use the wet gum method for this emulsion preparation
3. In the first gum and water are triturated together to form a mucilage in mortar and pestle
4. Then the required quantity of oil according to our ratio 4:2:1 then added gradually in small proportion with triturating to form the primary emulsion
5. In the end add 1 ml liquid asafoetida resin and remaining quantity of water is added to make the final emulsion.

## Results and Discussion

Gastric dilation is a disease in which the stomach becomes bloated due to the outbreak of air. When rounding, the animal begins to have difficulty breathing and the stomach increases in size. There is difficulty in getting up and walking and the animal gives up food. Eventually the animal may even die. This disease occurs in male and female animals that give milk.

Plant ingredients are currently being used to make most synthetic drugs too. These herbal treatments can reduce the cost of treatment and can avoid unwanted adverse effects of allopathic medication. Thus, the present study was designed to evaluate the efficacy of ethnoveterinary medicine formulation in GDV disease in animals and to improve its general health condition.

Emulsions can be made simply by mixing immiscible liquids with force and stabilizing it by adding surfactants or emulsifiers, but to

make an emulsion that is comfortable, safe, and stable is not something that can be easily achieved.

## Conclusion

In our research, we concluded that Gastric dilatation volvulus, also known as gastric dilation, twisted stomach, or gastric torsion, is a medical condition that affects animals in which the stomach becomes overstretched and rotated by excessive gas content. GDV is a life-threatening condition in animals that requires prompt treatment. Gastric dilation is a disease in which the stomach becomes bloated due to the outbreak of air. When rounding, the animal begins to have difficulty breathing and the stomach increases in size. There is difficulty in getting up and walking and the animal gives up food. This disease occurs in male and female animals that give milk.

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## Ethical Approval

Ethical approval was not required for this letter. All data used is publicly accessible.

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## Conflicts Of Interest

All authors are declaring that they have no conflicts of interest.

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