

## Ascites in Canines

**Dr. Kolipaka Rajesh and Dr. Ashok Kumar D.**

Department of Veterinary Physiology, College of Veterinary Science, Mamnoon, Warangal,  
P.V. Narsimha Rao Telangana Veterinary University

Associate Professor, Department of Veterinary Biochemistry, College of Veterinary Science,  
Mamnoon, Warangal, P.V. Narsimha Rao Telangana Veterinary University

### Introduction

Canine ascites, a condition in which fluid collects or White fluid is present in the abdomen, is a serious, potentially life-threatening condition in which a canine's stomach fills with fluid. If untreated, it can cause discomfort, bloating and swelling as well as other health problems.

Ascites, also known as the stomach, consists of vital organs such as the liver, pancreas, stomach, intestines, spleen, and bladder, with little or no fluid around them. When a canine has ascites, this liquid floats freely in the stomach. Ascites in canines can occur for a variety of reasons, usually in the abdomen or in conjunction with large bowel movements elsewhere in the body. Ascites is a secondary symptom of an underlying medical problem. The amount and type of fluid that fills the abdomen will vary depending on the underlying condition. Because there is a lot of fluid, the stomach is large and puts pressure on the chest cavity. This can prevent the lungs from expanding, causing difficulty breathing or respiratory failure.

### Causes of Ascites in Canines

Ascites causes abdominal pain because there is fluid in the stomach. This secondary pain indicates a more serious condition and should be checked out by a veterinarian as soon as possible. The most common conditions that cause ascites in canines are:

- a) **Heart failure:** In the case of congestive heart failure, fluid may accumulate in the abdominal cavity due to the decrease and increase in pressure in the vessels carrying blood to the heart. . Specifically, right heart failure is known to cause ascites build-up in canines

because blood backs up into the abdominal arteries causing white fluid to build up in the canine's abdomen.

- b) **Liver disease:** Changes in blood protein and blood pressure resulting from diseases such as cirrhosis or liver disease can cause excess fluid to form in the stomach. When you have severe liver disease, the liver stops producing a special protein called albumin. Hypoalbuminemia causes a decrease in colloid osmotic pressure, which can lead to excess fluid in the stomach. Also, increased blood pressure in and around the liver can cause ascites buildup.
- c) **Bleeding:** It may occur as a result of internal bleeding caused by conditions that cause the blood to fail to clot, such as ascites, abdominal pain or coagulation disorders. Also, bleeding from an enlarged spleen can cause bloating and ascites in canines.
- d) **Nephrotic syndrome:** It is a kidney disease caused by loss of protein in the urine, low protein in the blood and high cholesterol. It can cause the liquid to get into the canine's stomach and build up ascites. Nephrotic syndrome refers to damage to the filters in the kidneys. Glomerular damage from infection, inflammation, or other causes can cause protein in the urine, resulting in decreased colloid osmotic pressure and ascites.
- e) **Cancers and Lumps:** Cancer cells or tumors in canines can cause ascites formation by blocking the lymphatic system, which has many functions including the control of body fluids. This blockage can cause lymphatic fluid to flow into tissues or spaces, including the stomach.

- f) **Peritonitis:** Peritonitis is inflammation of the abdominal cavity and canines develop ascites. These infections can be caused by infection or disease, injury, pancreatitis, or fluid in the intestines. Fluid can build up in the abdominal cavity in response to pain, which can cause the canine to develop ascites.

### Signs of Ascites in Canines

When there is a small amount of fluid in the stomach, the symptoms will be similar to most and sometimes mild. Symptoms will worsen with more fluid and cause more pain. These include: Drowsiness, loss of appetite or anorexia, vomiting or retching, diarrhoea, increased or decreased bowel movements, weakness, abdominal pain, weight gain, restlessness, excessive breathing, increased thirst, increased urination, abdominal pain on palpation, don't make a sound. When sleeping, look for the Principles of Sleep, Blue or purple colour of the gums, Darkness, Cough, Rapid breathing, Shortness of breath, Shortness of breath.

### Diagnostic Methods for Ascites in Canines

- Physical examination:** A complete physical examination is required for the diagnosis of ascites. Your veterinarian will examine your abdomen and examine you for fluids. They will also check for other symptoms such as weight gain, shortness of breath, and breathing problems.
- Abdominal paracentesis:** This procedure involves taking a small amount of fluid from the abdomen with the help of a needle. This fluid is then analysed to determine its composition, which can give an idea of the cause of the ascites. This test can provide important information, as different diseases cause different types of effusions.
- Urinalysis:** Urinalysis via urinalysis can help diagnose kidney disease and urine protein, both of which can cause ascites formation.
- Blood testing:** Evaluating a canine's overall health and detecting potential causes of ascites, such as liver or kidney disease, heart disease, or infections, can be facilitated through blood tests. These tests prove to be helpful in identifying any underlying conditions.
- Imaging:** To examine the abdomen for tumours, organ enlargement, or signs of

injury, we use ultrasound or X-ray imaging. These procedures can also aid in determining the amount of free fluid within the abdomen.

### Treatment of Ascites in Canines

Once the condition is diagnosed in a canine, fluid removal is often the first step in the treatment plan. This is not usually a cure because the fluid can be refilled, but it can help identify the cause of the ascites.

- Drainage:** If the canine is sick from excess fluid in the stomach, we may choose to perform paracentesis to drain the fluid and provide immediate relief. It is important to remember that although this method is effective in providing temporary relief, it does not solve the underlying problem and, if left untreated, will lead to fluid retention and water return.
- Medications:** Medications used in ascites treatment vary according to the situation. In some cases, diuretics such as furosemide or spironolactone may be recommended to remove excess fluid. Heart medications should be used for heart diseases. If we suspect the canine has an ascites-forming or ascites-forming infection, we will prescribe antibiotics. In addition, if there is evidence supporting the presence of liver or kidney disease, special medications will be prescribed to support these diseases.
- Dietary changes:** If your canine has ascites due to heart disease, your vet may recommend changing him to a low-fat diet. This can help reduce fluid retention in the body. On the other hand, if kidney disease is causing problems, your canine may need a high protein diet.
- Surgery:** If the cause of the canine's ascites is a tumor, surgery is required for its treatment.

For example, if the tumor is bleeding, splenectomy may be necessary. Otherwise, the actual surgery will need to vary depending on factors such as the type, size and location of the tumor, as well as the canine's health and long-term consequences.

Recovery and treatment of ascites in canines given the many causes of ascites, the diagnosis cannot be made until the underlying condition is identified. Surgery may be required for some causes of bowel obstruction. In other cases, the condition can be controlled

with medication. Some conditions that cause ascites can be controlled or treated. Unfortunately, some situations cannot be repaired. While ascites is not always a life-threatening condition, it can indicate a negative result such as cancer that may need to be tested, especially in older canines and canines. If your canine has bloating, it should not be ignored as it can be a serious condition. It is important to follow your veterinarian's instructions for a speedy recovery.

### **Prognosis in Ascitic Canines**

The prognosis in canines with ascites is largely dependent on the severity of the condition. Ascites is a symptom, not a disease, so its prognosis is related to the treatment and management of the condition causing it. In cases where ascites is caused by a condition such as heart disease and detected at an early stage, good results will be obtained with appropriate treatment and changes in life. However, if the ascites is caused by liver disease or cancer, the prognosis is not good.

### **Conclusion**

Ascites in canines is a serious condition that can be caused by a number of health problems. If your canine shows signs of ascites such as bloating, shortness of breath or excessive panting and lethargy, be sure to take your canine to the vet. Diagnostic tests usually include a physical exam, paracentesis, urinalysis, blood tests, and imaging tests. Treatment depends on the cause but may also include Gastric injection, antibiotics or heart disease, depending on the cause; dietary changes, such as a low-fat diet for people with heart disease; and surgery if cancer is present. The prognosis ultimately depends on the severity of the underlying problem.