



## Bilious Vomiting Syndrome in Dogs

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Bilious Vomiting Syndrome (BWS) is a condition associated with the patient's vomiting characterized by bile in the early morning hours. BWS (reflux gastritis/duodenal gastric reflux) is a common disease that develops due to biliary reflux from the duodenum to the stomach and is characterized by chronic and intermittent bile vomiting [1-3]. Vomiting is thought to occur as a result of irritation of the gastric mucosa as a result of reflux of duodenal fluid into the lumen of the stomach. Although the cause is unclear, the primary underlying cause is thought to be gastric hypomotility. No age, race or gender predisposition is reported in the disease. It is mostly observed in the middle-aged dogs [1,3,4]. The disease is mainly symptomatic in dogs that have not received food in the morning and during the night. It is characterized by chronic and intermittent bile vomiting. These dogs have an empty stomach and gastric bile reflux is observed. Body condition of the patients is generally normal. Bile salts cause damage to the gastric mucosal barrier over time, leaving the gastric mucosa unprotected against gastric acid. In dogs with bilious vomiting syndrome, gastric bile reflux and irritation of bile on the gastric mucosa lead to the development of gastritis over time [1].

### Etiology

Biliar gastric reflux is a possible cause of esophagitis, gastritis and gastric ulcers [5,6]. Duodeno-gastric reflux (bile) is known to cause significant changes in the gastric mucosa in dogs and other species. It has been reported that enteric biliary reflux can cause irreversible histological changes in the gastric mucosa even if bile leakage is prevented. In a study performed on a dog, the first obvious acute inflammatory lesion occurring in the gastric mucosa due to biliary reflux was reported. It was discovered on the 130th day of contact with bile [1,2].

### Symptoms

Bilious Vomiting Syndrome is common in dogs. The syndrome is characterized by frothy bile vomiting that is white, yellow, or yellow-brown that does not contain any food or mucus. Vomiting is not related to food intake. Patients are usually hungry and they vomit in the morning. These data are similar to the findings of the presented study. According to the anamnesis, it was determined that the patient vomites mainly after intense effort (hunting) and during the period when he was hungry. Intestinal partial/complete obstructions, abdominal tumor and hiatal hernia, giardiasis and intestinal parasitism are important in the differential diagnosis of biliary vomiting syndrome. In addition, it is reported that the picture of biliary gastritis develops in relation to the reflux of excessive duodenal contents to the stomach [4,5].

### Treatment

In the treatment procedure; diet regulation should be done primarily and medical treatment should be started [7]. For this purpose, therapy involved frequent feedings, late evening meals, gastric acid reducers, prokinetics, and gastroprotectants [4,7]. A prokinetic agent that protects the mucosal surface and increases motility was prescribed. Significant improvement was achieved in the patient with the applied treatment procedure. Complete blood count in dogs with bilious vomiting syndrome, serum biochemistry and urine analysis results are generally normal. In addition, fluid therapy is given frequent and small amounts of oral fluids to cases with a dehydration degree less than 5%. If vomiting prevents oral fluid intake, subcutaneous administration of an isotonic composition electrolyte solution is sufficient to correct mild fluid deficiencies. However, for patients with moderate to severe dehydration, oral or subcutaneous fluid administration is insufficient for effective rehydration. In such cases, intravenous fluids should be administered [1].

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