

Case Report

THERAPEUTIC MANAGEMENT OF ASCITES IN GSD FEMALE DOG

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Abstract: A Nine year old German shepherd female dog presented to the TVVC, Bhubaneswar Odisha with the history of inappetance and enlargement of abdomen. On physical examination revealed dyspnea, dehydration and slightly pale mucus membrane. Rough, lusterless and body coat and abdominal distention along with hollowness at the flank region. On tapping the abdomen there was undulating movements (Thrills) of the fluid. The radiographic examination revealed of ground glass appearance in abdominal cavity and thoracic cavity and slightly enlargement of heart respectively. Increased neutrophils with decrease in erythrocytes and hemoglobin and increased SGPT value with decrease in total protein value was observed. The bitch was diagnosed as ascites of hepatic origin resulting hypoproteinemia. The bitch was treated with antibiotics, diuretics, and amino acid and liver tonics along with protein rich diet. The bitch showed improvement in reduction of abdominal distention with normalization of the appetite after 5 days of treatment and complete recovery was noticed after 15 days of treatment.

Keywords: Ascites, German shepherd, Laparotomy, Treatment.

Introduction

The normal abdomen houses organs that are bathed in a certain amount of intra-abdominal fluid. This fluid helps to maintain sterile environment for the organs and helps to fight infection, keep and cells and tissues moist and healthy, and promote cellular renewal and tissue repair. When free fluid in the abdomen accumulates that is excessive and even distends the patient, this is referred to as ascites. Ascites is really not a disease in and of itself, but a syndrome or clinical sign that arises secondary to some other primary disease like chronic hepatic failure, congestive heart failure, nephritic syndrome, malnutrition, ankylostomiasis and protein losing enteropathy in canine (Randhawa et al 1980). Multiple organ disorders, hypoproteinemia (Dabas et al., 2011; Turkar et al., 2009), and right side heart failure (Ettinger and Feldman, 2005) are the common causes associated with ascites in dogs. The present paper describes Ascites in dog and its medicinal management along with Laparotomy.

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Case History and Observations

Nine year old German shepherd female dog presented to the TVVC, Bhubaneswar Odisha with the history of inappetance and enlargement of abdomen. According to owner, the dog was usually depend on hand feeding and selective feeding like Sattu (mixture of mixture of ground pulses and cereals). On physical examination revealed dyspnea, dehydration and slightly pale mucus membrane. Rough, lusterless and body coat and abdominal distention (**Fig.1**) along with hollowness at the flank region. On taping the abdomen there was undulating movements (Thrills) of the fluid. The radiographic examination revealed of ground glass appearance in abdominal cavity and thoracic cavity and slightly enlargement of heart respectively. Increased neutrophils with decrease in erythrocytes and hemoglobin and increased SGPT value with decrease in total protein value was observed .The bitch was diagnosed as ascites of hepatic origin resulting hypoproteinemia.

Treatment

Ventral abdomen prepared aseptically forremoval of extra fluid from the abdomen. Dog was premeditated with Xylazine (2mg/kg B.wt) and Butorphanol (0.02mg/kg b.wt) intramuscularly. Anaesthesia was induction and maintained by administration of Propofol @ 1mg/kg b.wt for10 minute intervals. Placed the animal on operation table in dorsal recumbency. Perform the laparotomy and removed 1 to 2 lit fluids from abdominal cavity. Laparotomy wound was closed with routine surgical procedure by using Synthetic PGA (size 1-0). Post-operative care with inj Astymin 100 ml, inj Dextrose100ml and RL100mlwere given intravenously due to dehydration to replace the fluid and electrolyte deficit which occurred due to removal of ascetic fluid during Laparotomy. Inj Ataxin 1ml andinj Neohepatex 1ml intramuscularly and lacilactone 1 tab twice daily for 10 days. Liver tonics (Livotas pet) bid, for 4 weeks was also given to improve the appetite. Protein rich diet, with low salt was given to prevent the recurrence and aggravation of the condition. Animals recovered uneventfully in a time period 20 days.

Discussion

Free fluid in the abdomen can be treated by tapping the abdomen utilizing a drainage technique called abdominocentesis. Some cases will respond to treatment with a diuretic depending on the cause of ascites, however, severe ascites usually requires abdominocentesis to manage initially (Paden et al (192). But in this case free fluid from abdomen was removed by Laparotomy. In the present study with hematological examination, revealed slight decrease in Hb concentration and leukocytosis with increase in Neutrophils which was also

reported by Cornelius et al (1975), Kumar (2002). Increased SGOT indicates hepatic insufficiency with extension damage resulting into leakage of enzyme from hepatic cell into blood stream (Cornelius et al 1975). Normal serum Urea and Creatinine indicate normal renal function. The lower blood glucose indicative of hepatic insufficiency. Excessive loss of albumin leads to albumin deficiency and a syndrome that result in line with albumin deficiency that occurs with liver disease: ascites. So a high quality, low protein diet in numerous small feedings is desirable to diminish bacterial conversion of excess protein to ammonia in the colon. Adequate energy should be included to minimize catabolism of proteins. Eggs, milk, lean meat, glucose, and B complex vitamins are examples of high quality foods to be included in such a diet. The recovery of dog after treatment with diuretics, liver tonics along with supportive therapy was good and complete without any recurrence and other complications.

References

- [1] Cornelius L.M., Thrall D.E., Halliwell W.H., Frank G.M., Kern A.J. and Wood C.B. (1975): *J. Am.Vet. Med. Assoc.* **167**:220-28.
- [2] Kumar S. (2002): Thesis Abstract *J. Canine Dev.Res.* **2**:78.
- [3] Peden, W. Michael and Zenoble, R.D. (1982) "Canine Ascites," *Iowa State University Veterinarian*: Vol. 44: Iss. 1, Article 3.
- [4] Turkar, Sujata, Randhawa, C.S. and Uppal, S.K. (2009). Ascites associated with ancylostomiasis in a pup: A case report. *Intas Polivet.* **10** (2): 357-359.
- [5] DabasVS, Suthar DN, Chaudhari CF, Modi LC, Vihol PD (2011). Ascites of splenic origin in a mongrel female dog – a case report. *Veterinary World*, 4:376-377.
- [6] Ettinger SJ, FeldmanEC (2005). *Text book of Veterinary Internal Medicine; Disease of Dog and Cat.* VI edn. WBSaunders, Philadelphia; pp 137-145.



Fig. 1 showing distended abdomen



Fig. 2 showing fluid drainage site



Fig. 3 Showing recovered dog after treatment