ASCITES IN DOG - A CASE REPORT

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Ascites referred to as accumulation of serous fluid in peritoneal cavity due to escape of fluid between the parital and visceral peritoneum from blood vessels, lymphatics, internal organs or abdominal masses. Ascites be caused due to chronic hepatic failure, congestive heart failure, nephritic syndrome, malnutrition, ankylostomiasis and protein losing enteropathy in canines (Ettinger and Barret, 1992).

CASE HISTORY AND CLINICAL EXAMINATION

Six year old male Labrador retriever dog weighing 30 Kg was brought to clinics of Apollo College of Veterinary Medicine- Jaipur, as outdoor patient for treatment. The dog exhibited the symptoms of inappetance, symmetrical enlargement of abdomen assuming a pear shaped appearance with distended linea alba downward to flank region, mucous membrane was pale in color dyspnoea and tachycardia was evident, on tactile percussion fluid thrilled wave was felt/experienced. The temperature was 103^0F. The urine and feces color was normal. The blood examination revealed slight anemia (Hemoglobin- 9 gm%, PCV- 27 %). Serum biochemical profile revealed hypoglycemia, hypoproteinemia, reduced A:G ratio and hepatic disorder as activities of aminotransferases were high (table 1). The abdominocentesis showed presence of straw-colored fluid in peritoneal cavity. Survey radiograph of abdomen revealed diffused increased radio-density in abdomen as a 'ground-glass appearance' with no other changes.

TREATMENT

On the basis of clinical and differential diagnosis the case was diagnosed as ascites due to liver dysfunction . The dog was treated with Inj. Ceftriaxone sodium (Intacef, Intas India Ltd) @ 25mg/ kg BW I/V b.i.d., Inj. Dexamethasone (Dexona Vet, Cadila India Ltd.) 0.5 mg/kg BW I/V s.i.d. , injection Aminodrip (Wockhard pharma Ltd) 100 ml for 4 days and Injection Neohepatax 2 ml s.i.d. for 10 days. Along with above medicine inj. Furosamide (Lasix, Hoechst India Ltd.) @ 2 mg/kg I/

Table 1: Biochemical findings-

S.No.	Parameters	Before treatment (Day 0)	After treatment (Day 5)
1.	Blood glucose random mg/dl	50.31	95.16
2.	Total protein gm/dl	4.85	6.21
3.	Albumin gm/dl	1.86	2.83
4.	Globulin gm/dl	2.99	3.38
5.	A:G ratio	0.62	0.83
6.	Aspartate aminotransferase IU/L	140.28	68.92
7.	Alanine aminotransferase IU/L	208.75	110.06
8.	Bilurubin mg/dl	0.38	0.15
9.	Blood Urea Nitrogen mg/dl	6.17	12.62
10.	Creatinine mg/dl	0.92	0.98

V daily for 8 days was also given. A maintenance fluid (Rintose, Wockhadrt Ltd.) 500 ml was given I/V along with above therapy. The dog was placed on salt free and easily digestible protein diet supplement (Proteinex, Pfizer India Ltd.). The condition of the dog started improving after 5th day of treatment.

DISCUSSION

Ascites is associated with a variety of clinical conditions; the correct diagnosis of the primary cause is mandatory to undertake any definite treatment. The biochemical analysis of blood and differential diagnosis confirmed that this case of ascites was of hepatic origin. The aspartate aminotransferase (AST) and alanine aminotransferase (ALT) are important markers for hepatocyte damage (Kaneko, 1997). The elevated serum AST and ALT revealed that there was damage to the integrity of hepatocytes which leads to leakage of these cellular enzymes. In the present case there is moderate hypoglycemia and hypoproteinemia and decreased blood urea nitrogen due to hepatic damage, resulting in to decreased urea synthesis (Stockham and Scott, 2008) which may be associated with hepatic insufficiency. In hepatic disease the uptake, conjugation and excretion of bilirubin may be deranged and results in elevation of the serum bilirubin as seen in the present case. The normal creatinine in the blood shows that the renal functions were within physiological limits.

REFERENCES :

Ettinger, S.J. and Barret, K.A. (1992). Ascites, peritonitis, and other causes of abdominal distention. Textbook of veterinary Internal Medicine, Diseases of dog and cat. III ed. WB Saunders, Philadelphia, 68.

Kaneko, J.J., Harvey, J.W. and Bruss, M.L. (1997). Clinical biochemistry of domestic animals, 5th Edn. Academic press, USA.

Stockham, S.L. and Scott, M.A. (2008). Fundamentals of veterinary clinical pathology, 2nd Edn. Blackwell Publishing, Iowa, USA.

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