IJCP

THERAPEUTIC MANAGEMENT OF CHOLECYSTITIS IN DOG

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DOI 10.29005/IJCP.2024.16.1.23-24} [Received: 14.12.2023; Accepted: 10.03.2024]

How to cite this article: Halder, B., Sarkar, S., Lodh, C. and Gupta, A.R. (2024)., Therapeutic Management of Cholecystitis in Dog, Ind. J. Canine Pract., 16(1): 23-24.

A 2.5 years old dachshund dog having 12 kg body weight was presented at TVCC, Belgachia, W.B.U.A.F.S, Kolkata (West Bengal), with a history of anorexia, abdominal pain, vomiting and diarrhoea. Faecal and blood smear examination was negative for any parasitic ova and haemoprotozoa, respectively. Haemato-biochemical examination revealed leucocytosis with neutrophilia and increased Alkaline phosphatase (ALP) which suspected for hepatobiliary disease. Abdominal ultrasound showed distended gallbladder and confirmed the case as cholecystitis. For medical intervention the case was treated with fluid therapy by Ringer Lactate, antibiotic therapy Ceftriaxone Tazobactum along with ursodeoxycholic acid and Silymarin. The dog was responded well andrecovery noticed by day 21 post treatment.

Keywords: Canine, Cholecystitis, Gallbladder, Liver, Ultrasonography.

Cholecystitis is inflammation of the gallbladder commonly caused by ascending bacterial infection from the duodenum through the common bile duct and/or haematogenous infection via enterohepatic circulation (Tamborini *et al.,* 2016; Cullen and Stalker, 2016; Ikki *el al.,* 2021). Cholecystitis often leads to clinical signs such as vomiting, fever and abdominal pain. The routine abdominal ultrasonographyis now being used for diagnosis of acute and chronic gallbladder diseases (Bargellini *et al*., 2018)..Cholecystitis is managed by restoration of fluid and electrolyte status, treatment with broad-spectrum antibiotics (Rogers *et al.,* 2020) and other supportive therapy including choleretic therapy and silymarin. The present case study describes the therapeutic management of cholecystitis in a dachshund dog.

Case history and Observations

A 2.5 years old dachshund dog having 12 kg body weight was presented at TVCC, Belgachia, W.B.U.A.F.S, Kolkata (West Bengal), with a history of anorexia, vomiting and diarrhoea. The dog was dewormed and vaccinated in regular manner. The rectal temperature was 102° F. Faecal examination revealed no parasitic ova and blood smear was negative for any haemoprotozoa. The complete blood count (haemoglobin:14.7 gm/dL, total leucocyte count:19,100/cumm, neutrophil: 87%, eosinophil: 01%, basophil: Nil, lymphocyte: 12%, monocyte: 02%, platelets Count: 310×10^3/cumm) revealed leucocytosis and neutrophilia. Biochemical evaluation revealed an elevation in the liver enzyme alkaline phosphatase 350 IU/L. The ultrasonographic examination showed descended gallbladder with normal wall thickness (Fig. 1). Based on above findings, the case was diagnosed as cholecystitis.

Treatment, Results and Discussion

The dog was treated with intravenous fluid (Ringer lactate), ceftriaxone with Tazo-bactum @25 mg/Kg b.wt. I/V, Metronidazole @10 mg/Kg b.wt. I/V, Ondansetron @0.2 mg/Kg b.wt. I/V for 5 days along with Ursodeoxycholic acid @15 mg/Kg b.wt. divided over two doses and Silymarin @20 mg/Kg b.wt. orally for 3 weeks. The dog was responded well and showed remarkable changes. Clinical signs

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Part of M.V.Sc. Thesis

were disappeared and haemato-biochemical restoration occurred (haemoglobin:14 gm/dL, total leucocyte count:11,400/cumm, neutrophil: 77%, eosinophil: 02%, basophil: Nil, lymphocyte: 20%, monocyte: 02%, platelets Count: 300×10^3/cummand serum alkaline phosphatase 86 IU/L) to near normal value after 21 days. Ultrasonographic report also showed noticeable improvement.

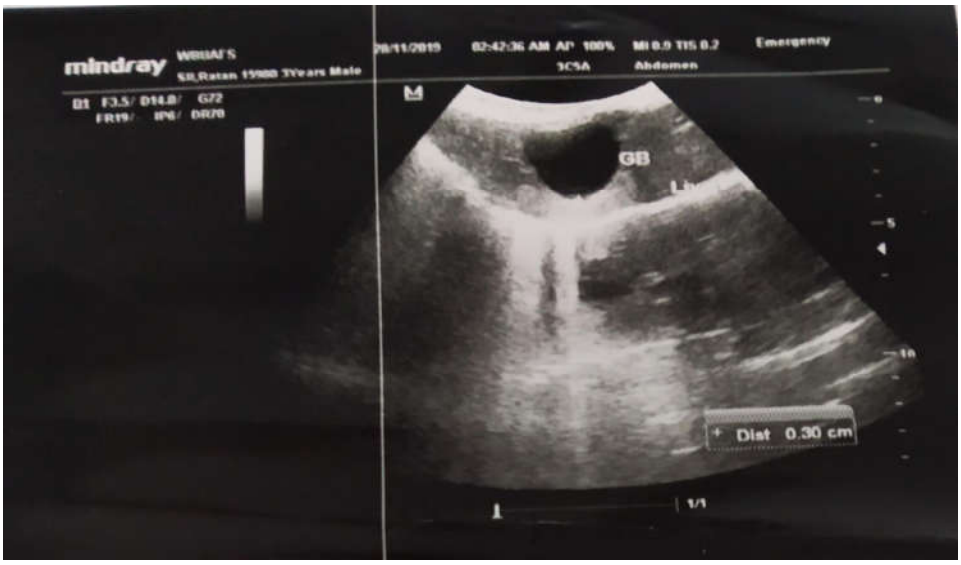

Fig. 1: ULTRASONOGRAPHIC IMAGE SHOWING DISTENDED GALLBLADDER

In comparison to other hepatobiliary diseases, cholecystitis is rare in dogs. The usual cause of cholecystitis is an ascending bacterial infection from gastrointestinal tract or haematogenous bacteria as also reported by Cullen and Stalker, 2016 and Ikki *et al.,* 2021. Significant improvement in dog with cholecystitis was noticed using proper treatment plan including fluid therapy for restoring and maintenance of electrolyte balance, antibiotic therapy along with other supportive therapy and choleretic therapy such as ursodeoxycholic acid, provided there is no evidence of extrahepatic biliary obstruction. Ursodeoxycholic acid also having anti-inflammatory, immunomodulatory and antifibrotic properties on hepatobiliary system.

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