part of intestine on its mesenteric axis was noticed. The ventricles of the heart revealed severe hypertrophy. Mild hepatomegaly with rounded borders and rib impression noticed over the parietal surface. Circulatory shock usually occurs as a result of decreased venous return combined with decreased cardiac output due to acidosis and myocardial ischaemia as reported by Matthiesen (1993). The spleen showed marked enlargement and appeared as ‘V’ shape (Fig.3). The cut surface of the spleen revealed severe congestion. Splenomegaly and marked “V” shaped spleen was commonly observed since the spleen is being tied to the stomach by the gastro- splenic ligament (Castro et al., 2013). Mild degree of congestion was seen over the renal cortical surfaces.

Histologically, the spleen revealed severe congestion (Fig.4). Liver showed varying degree of vacuolar degeneration of hepatocytes and distortion of hepatic cords. Infiltration of mononuclear cells was noticed in the submucosa of intestine. Increased level of circulating endotoxin possibly resulted in injury of intestinal villi (Brockman et al., 1995). Gross and histological changes in various organs viz. stomach, duodenum, jejunum, pancreas and liver might be due to reduced oxygen tension (Komtebedde et al., 1990). Respiratory function is compromised by GDV as increased intra-abdominal pressure limits movement of the diaphragm and reducing tidal volume (Rasmussen, 2003).

References


Clinico-Pathological Studies of Pancreatitis in Twelve Dogs

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Abstract

The present study was conducted in twelve clinical cases of dogs with pancreatitis. The dogs were showing signs of pancreatitis subjected to detailed anamnesis, clinical examination, biochemical evaluation and ultrasonography examination as per standard methods. The results of haematology and serum biochemical parameters were highly significant leucocytosis with neutrophilia and highly significant increase in serum cholesterol, triglycerides, amylase and lipase observed. Ultrasonography examination proved a safer procedure for diagnosis of pancreatitis in dogs.

Key words: Ultrasonography, Leucocytosis, Cholesterol, Lipase

Pancreatitis is one of the common diseases of
The canine. Timely and accurate diagnosis of pancreatitis is essential because it is associated with significant morbidity and mortality.

Materials and Methods

Dogs brought to Madras Veterinary College hospital were screened for signs of pancreatitis. Twelve dogs that were showing signs of pancreatitis subjected to detailed anamnesis, clinical examination, biochemical evaluation (Kaneko, et al. 2008) and ultrasonography (Penninck and Anjou, 2008) as per standard methods. Out of twelve dogs seven female and five male dogs confirmed as pancreatitis. A higher incidence of pancreatitis occurred in 4-6 years of age (66.66%) and followed by 7-9 years (33.33%). The data obtained were subjected to statistical analysis as per Snedecor and Cochram (1994).

Results and Discussion

The clinical signs noticed in these animals were vomiting (100%), abdominal pain (62.83%), dehydration (59.23%) and diarrhoea (33.12%). Hess et al. (1998) reported that clinical signs seen in patients with pancreatitis depend on the severity of the disease. Mild cases might often remain subclinical and more severe cases might present with anorexia, vomiting, weakness, abdominal pain, dehydration and diarrhoea.

The mean±S.E. values of haematology and serum biochemical parameters are presented in Table I. A highly significant leucocytosis
with neutrophilia was observed in the dogs with pancreatitis when compared to control. These findings were in accordance with the findings of Mix and Jones (2006) who reported leucocytosis and neutrophilia in acute pancreatitis. Highly significant increase in serum cholesterol, triglycerides, amylase and lipase were observed in the dogs with pancreatitis compared to control. Steiner (2003) suggested that an elevation of 3-5 times the upper limit of reference range was suggestive of pancreatitis.

Nelson and Couto (1992) stated that the extension of inflammation to the liver and the effects of activated digestive enzymes on the liver are responsible for the elevation of liver enzymes viz, SAP and ALT. Murdoch (1981) opined that the pancreatic inflammation resulted in the elevation of serum bilirubin levels. The elevated values of ALT, SAP and serum bilirubin in the present study is in accordance with the observation of the above author.

Hypoechoic and enlarged pancreas suggestive of acute pancreatitis were noticed in these animals (Fig.1). The above findings are in accordance with Nyland and Park (1983) and Hess et al., loc cit. In addition pancreatic mass of mixed echogenicity with predominantly anechoic areas with Doppler superimposed were observed in two dogs (Fig.2). These findings were in agreement with Smith and Biller (1998) who reported that in dogs with acute pancreatitis pseudocyst develop secondary to the accumulation of pancreatic enzymes, blood and the products of tissue digestion within the pancreas.

Out of 12 dogs with pancreatitis, two died. The histopathological changes in these animals were pancreatic acinar atrophy (Fig.3) and pancreatic fat necrosis in both the cases.
These findings were as concurrent with Steiner (2008) who reported that the pancreatic fat necrosis might have been due to the necrosis of acinar cells leading to leakage of enzymes, resulting in necrosis of fat around the pancreas.

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References


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Surgical Management of Urethral Prolapse in a Dog

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Urethral prolapse is protrusion of urethral mucosa at tip of the penis. Urethral prolapse is uncommon and it may be due to sexual excitement, urinary tract infection and trauma and common in brachycephalic dogs. The usual treatment of choice was surgical resection of prolapsed mass (Fossum, 2013). Urinary catheterization deemed necessary for maintaining urethral patency (Rabidi et al., 2014).

Case History and Observations
An eight month old male Siberian Husky dog was brought to Heart2Heart veterinary hospital, Chennai with history of small growth at tip of the penis, mild penile haemorrhage and frequent

Key words: Dog, Urethral Prolapse, Antibiotic.

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