Infectious Canine Hepatitis

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Lymphocytoma in the Bovine. A Shorthorn cow, approximately twelve years old, was admitted to Stange Memorial Clinic with a history of indigestion and periodic bloating during the past two weeks. Symptomatic treatment and relief of the bloat by passing a stomach tube was administered by the ambulatory clinic staff which had previously attended the cow. She would eat and appear normal but then would soon bloat again and refuse to eat. At no time was an elevated temperature observed.

At the time of presentation to the clinic, the following symptoms were noted upon examination: The cow was in fair flesh with normal rectal temperature, but had distention of the jugular veins and a visible jugular pulse. There was slight edema of the brisket area, and the heart sounds were muffled, but respiratory sounds were considered normal. Rectal examination revealed no pathology.

Since the symptoms were suggestive of traumatic pericarditis, a thoracentesis was made in the lower third of the left fifth intercostal space but only 30-40 cc. of sanguinous fluid with no odor could be aspirated. This fluid, along with an oxygenated blood sample, was submitted to the clinical pathology laboratory. The fluid from the region around the heart was found to contain numerous mature lymphocytes, but very few neutrophils and erythrocytes. The hematology report gave the following clinical picture: hemoglobin — 6.83 G. %; R.B.C. — 5,930,000; W.B.C. — 12,600; eosinophils — 100; segments — 3,200; stabs — 1,200; monocytes — 400; lymphocytes — 7,700; hematocrit — 29%.

A diagnosis of lymphocytoma was made, based on the history, symptoms and the presence of numerous mature lymphocytes in the fluid aspirated from the pericardial region. An unfavorable prognosis was given and permission for a post mortem examination was requested. This was not immediately granted so the animal was discharged from the clinic.

The cow returned to the clinic within the week with permission for euthanasia and Necropsy. The post mortem examination revealed a neoplasm of the anterior mediastinum, thoracic inlet and posterior neck. The neoplasm did not involve the lymph nodes of the area and was thought to be thymic in origin.

The similarity between this condition as described and traumatic pericarditis should be noted. The clinical picture of indigestion occurring with distention of the jugular vein and edema of the brisket is suggestive of traumatic pericarditis. However, this was distinguished with the aid of the laboratory and the fact that there was no elevated temperature.

John Carson, '60

Infectious Canine Hepatitis. Infectious canine hepatitis occurs in dogs of all ages, but is primarily important in the early months of life. Most dogs are infected early in life due to the high rate of exposure. Severe leukopenia and impaired liver function usually result in the more severe cases of this viral disease.

A three month old male Dalmatian was admitted to the Stange Memorial Clinic on December 4, 1959. The accompanying history indicated it had a loss of appetite, a high temperature, and that its gums were hemorrhagic.

Symptoms exhibited on admission included icterus of the visible mucous membranes, conjunctiva, and skin. A few petechial hemorrhages were noted in the gums. The abdominal cavity was distended, apparently from ascites. The heart sounds were normal. The temperature had become slightly subnormal. The pup showed complete anorexia.

A tentative diagnosis of infectious canine hepatitis was made.

Laboratory tests showed a WBC count of 6500, which consisted of 1500 stabs, 1500 segments, 100 monocytes, and 3400 lymphocytes. The clotting time was 10.5 minutes. Urine tests indicated a pH of 6.0, 100 mg. of albumin, negative for sugar, and a positive icto-test. The urine revealed excess bilirubin as indicated by 18+ drops of methylene blue where as
an excess of five drops is considered as a positive indication of liver dysfunction.

On the day of entry, the patient received one cc Intraheptol (Lederle Lab., Div. Amer. Cyanamid Co., N.Y., N.Y.) intravenously along with nine cc of five per cent dextrose. Also 250 cc of five per cent glucose with injectable B vitamins were given subcutaneously. This treatment was repeated on night medication.

On the following day, December 5, the temperature was 99.5 F and the dog was reported to be very ill. There was some anasarca present. A subcutaneous mass on the ventral abdomen was found and was suspected to be hemorrhage. The dextrose with B vitamins was repeated. One Caniheptin lipotropic tablet (Jensen Salsbery Lab., Inc., Kansas City, Mo.) was given orally and one cc Crude Liver Injection USP (The Upjohn Co., Kalamazoo, Mich.) was injected intramuscularly. At 9 PM the patient was dead.

Postmortem examination revealed severe generalized icterus. The liver was swollen and congested. The liver was yellow colored with uniform brownish mottling. The final diagnosis was infectious canine hepatitis.

The transmission of the organism is mainly by way of saliva and urine. The fact that recovered animals and subclinically sick animals can disseminate the virus in their urine for months is important. It must reach the oral cavity of a susceptible animal. Immunity from the live virus is considered long-lasting.

Francis X. Dieter, '60

References
Canine Medicine, Multiple Authors, American Veterinary Publications, Inc., 1959.

Herniation and Anastomosis of the Intestines of a Bovine. On August 31, 1959, a five year old Holstein cow was admitted to Stange Memorial Clinic for treatment. She was part of a show herd and had been referred by the fairgrounds veterinarian at Des Moines, Iowa. History, as given by the owner, revealed that she had difficulty in calving and an unusual fullness in the perianal region was noted. When traction was applied to the calf, the rectum prolapsed and ruptured allowing several feet of the small intestine to herniate. In the confusion that followed either the calf or the attendant stepped on the herniated intestine and caused mechanical separation of a segment of the ileum. When the fairgrounds veterinarian arrived, only one end of the ruptured intestine could be found. This end, which later was determined to be the distal end, was closed by infolding sutures. After careful washing of the exposed intestine, it was replaced through the tear in the rectal wall. Epidural anesthesia was administered, the anus was closed with a purse string suture to prevent further intestinal prolapse, and the cow was trucked to Ames.

When the cow arrived at the clinic a laparotomy incision was made in the right flank and both ends of the ruptured intestine were located. About 24 inches of damaged tissue was removed and a “sewer pipe” anastomosis was performed. An eight inch tear in the rectal wall was closed by sutures, working through the laparotomy incision. The cow was given 1000 cc of electrolyte solution, and 500 cc of 25 per cent dextrose, and 1.5 gm. of oxytetracycline intravenously. Later in the day one gallon of mineral oil was admin-