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[Session II] #5

Canine Hepatozoonosis in the Philippines: A Report of 4 Cases

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Canine hepatozoonosis is a hemoprotozoan disease due to *Hepatozoon canis* The disease is transmitted through the ingestion of an infected common brown dog tick, *Rhipicephalus sanguineus*. In the Philippines, it was first reported by Carlos *et al.* in 1971 when the organism was demonstrated in monocytes and neutrophils during routine blood smear examination of eight dogs.

For public health reasons, stray dogs are captured and impounded by the local government. At the Manila City Pound in Metro Manila, about 100 dogs are captured and impounded every week. Dogs unclaimed were euthanized. A preliminary survey conducted to determine the presence of blood parasites in 100 stray dogs at this Pound revealed 34 % were positive. Of the positive dogs, 24% had *Hepatozoon canis*, 8% had microfilaria and 2% had mixed infection of *Hepatozoon canis* and microfilaria.

Four cases of *Hepatozoon canis*infection in stray dogs impounded at the Manila City Pound are herein presented. All cases were Mongrel dogs weighing between 7-10 kg.: two were males and two were females. Prior to death, the animals were observed to be weak, lethargic and depressed. On blood smear examination, only two dogs demonstrated gametocytes in neutrophils. Limited laboratory findings revealed anemia, leucopenia, and adequate platelets. Grossly, two dogs, male and female, had subcutaneous hemorrhagic patches in the ventral abdomen and legs; petecchial to ecchymotic hemorrhages and hematomas in the lungs; friable and congested liver; ecchymotic to diffuse hemorrhages in the intestinal mucosa; hemorrhagic exudate in the intestinal lumen; round flabby hearts with petecchial to ecchymotic hemorrhages, and petecchial to ecchymotic hemorrhages in the kidneys. The other two dogs did not show severe hemorrhagic lesions. Tissue forms of *Hepatozoon canis* were seen in the lung, liver and spleen but not in all cases. Histopathologic lesions included cutaneous and pulmonary hemorrhages, interstitial pneumonia, vasculitis and perivasculitis in the lung, liver and kidney with predominantly lymphoplasmacytic cell infiltrates.

[Session II] #6

Pathological Features of Lead Poisoning in Swans in Japan

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Studies involving lead poisoning in swans have been conducted previously in many other countries, among them the U.S., Canada, the U.K. and Norway, but not many have been conducted in Japan. The primary way in which waterfowls become exposed to lead poisoning is through the ingestion of spent lead shots. The purpose of this study is to clarify the pathological features of lead poisoning in swans on the main island of Japan.

Twelve"@dead or euthanized swans in which lead poisoning was suspected, with a previous history of severe anorexia, inability to escape or stand, were examined. At necropsy, the vent area was stained with greenish watery diarrhea, and impacted crop with a large amount of grain was present. The presence of lead shots in the gizzard lumen was confirmed by x-ray in six swans, and all cases showed a dark greenish colored liver and distended gall bladder with dense bile contents. Microscopically, the most prominent finding was a marked deposition of brown hemosiderin pigment in the liver, spleen and kidneys in twelve swans, with the liver showing varying degrees of necrosis in eight swans. There were occasional intra-nuclear inclusion bodies in the liver cells of three swans. Chemical analysis showed high concentrations of lead in the liver and kidneys. All of these symptoms and microscopic findings indicate that the most probable cause of death was lead poisoning, and chemical analysis of the lead content indeed revealed strong evidence of such poisoning.

Further international cooperative study to monitor lead poisoning in waterfowl is needed because most waterfowl including swans migrate plural countries. We are trying to make a network across countries.

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[Session II] #7

Growth Profiles and Molecular Analyses of Recent Canine Distemper Isolates on Vero Cells Expressing Canine Signaling Lymphocyte Activation Molecule (SLAM)

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Canine distemper virus (CDV) that is a *Morbillivirus* and belongs to the family Paramyxoviridae causes a highly infectious