

Heartworm Disease

Contributed by Administrator
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This is a disease of growing importance for all dog owners in Hong Kong. Due to the increase mobility of dogs with their owners, especially in a cosmopolitan place such as Hong Kong, the incidence of canine Heartworm disease is on the increase. All it takes for an infection to occur is the presence of an already infected dog and the transmitter of the disease, the mosquito.

Life Cycle of the Canine Heartworm

1. Adult male and female heartworms are usually found in the lung arteries and the right hand side of the heart. The female will produce first stage larvae or microfilariae into the bloodstream. These 1st stage microfilariae are ingested by the mosquito when it takes a blood meal.

2. The 1st stage microfilariae will develop into 2nd and then 3rd stage microfilariae in the mosquito within the first 8-17 days.

3. When the mosquito feeds on another dog it will pass the 3rd stage microfilariae into the bloodstream, thereby infecting the new dog.

4. The 3rd stage microfilariae in the dog continues developing for 3-4 months prior to reaching their final destination, the heart.

5. Once in the heart the young heartworms develop into full adults and the females will start producing more infective 1st stage microfilariae in 5-6 months.

Clinical Symptoms

The earliest signs of canine Heartworm disease include coughing, laboured breathing, weakness and increasing exercise intolerance. Due to the presence of the adult heartworms in the right ventricle and pulmonary arteries of the heart, there is an increase resistance to the flow of blood, thereby causing the blood pooling in the liver and spleen. If there is a high count of adult heartworms the dog may develop congestive heart failure.

Diagnosis

A diagnosis can be based on an examination of blood sample microscopically. Confirmation is usually done with the use of an antigen test using a fresh blood sample.

Treatment/Prevention

The best treatment is to prevent the infection in the first place. The most common treatments include a monthly oral treatment with products such as Heartgard/Plus or Milbemycin. Clients may also find it convenient to have their pets vaccinated yearly with products such as Proheart.

If the dog already has an established colony of adult heartworm, treatment can be quite risky, time consuming and relatively expensive. Treatment involves treatment with drugs which could potentially cause adverse reactions. Fatalities are possible if the patient is very sick.