1953

Canine Filariasis and Ancylostomiasis

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Recommended Citation

Anthony, Russell H. (1953) "Canine Filariasis and Ancylostomiasis," Iowa State University Veterinarian: Vol. 15 : Iss. 1 , Article 14. Available at: https://lib.dr.iastate.edu/iowastate_veterinarian/vol15/iss1/14

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be expressed manually through the rectum so a laparotomy was decided upon.

On May 12, 1952, the left paralumbar fossa was prepared for surgery. The skin was infiltrated with 4 percent procaine. A vertical skin incision approximately 10 inches long was made in the center of the paralumbar fossa. The abdominal muscles were separated parallel to the direction of their fibers. The peritoneum was incised and the left ovary was located and removed with a spaying emasculator. Only the skin incision was closed, using a Stew- art stitch and linen tape suture material. Sulfathiozole ointment was applied to the incision and the patient was returned to her stall. The excised ovary was cut longitudinally and two distinct corpora lutea were present.

Following the unilateral oophorectomy, a considerable amount of pus was discharged for the next two days and estrum was observed on the fifth postoperative day. The abdominal incision was healing nicely and the patient appeared normal.

On May 19, 1952, the patient was examined per rectum and the uterus was found to be involuting. A corpus luteum was developing on the right ovary, indicating that ovulation had occurred.

The animal was discharged on May 20, 1952, and the owner was advised not to breed the cow for six months in order to allow complete recovery to occur. Two months later, the owner reported he had sold the cow through a sales barn for a very good price. The new owner was not known so a complete follow-up report on this patient is impossible.

Roger Hagedorn '53

Microfilariae in the Skin of the Horse. On Aug. 12, 1952, a Hackney pony stallion was admitted to the Stange Memorial Clinic for a skin examination. At the posterior part of the neck, adjacent to the shoulder, was a raised, hairless area about 3 by 5 inches which contained several secondary nodules about the size of a marble. The skin of the area seemed to be abnormally thickened and it was more deeply pigmented than the unaffected skin. Just posterior to the olecranon at approximately the eleventh rib, on both sides of the animal, were solitary, raised, hairless areas about one inch in diameter. These appeared to be of the same nature as the larger area on the neck. No signs of pruritis were observed.

A malignant melanoma was suspected because of the color of the nodules. A biopsy of the nodules was negative for melanin, but microfilariae were seen in the microscopic tissue sections. This is a rare condition in the United States.

After the three involved areas were anesthetized with 2 percent procaine, they were excised. The areas were allowed to heal as open wounds and the patient was discharged Sept. 23.

It was not considered feasible to attempt identification of this parasite as there is very little literature containing specific information concerning the skin infecting microfilariae of horses. This condition appeared to be entirely different from habronemiasis (summer sores) of horses.

Possible identifications of this condition are:

1. Atypical infection by the larvae of *Habronema majus, Habronema muscae, Draschia megastoma*. All three of these commonly produce lesions known as “summer sores”.

2. G. Dikman¹ has identified the microfilariae of *Onchocerca reticulata* in lesions somewhat similar to the ones seen in this case. (Adults of this parasite are found in the ligamentum nuchae.)

3. A similar condition has been described in the Philippine Islands, but the microfilariae have not been identified.


Robert E. Gamble '53

Canine Filariasis and Ancylostomiasis. A very interesting case was admitted to Stange Memorial Clinic on April 9, 1952. It was a crossbred,
three-year-old Collie. The owner said that he had been listless and off feed, and that his right hind leg would drag at times. Most of the three years of the dog's life were spent in Galveston, Texas, according to the owner. The dog was depressed and auscultation revealed a pronounced heart arrhythmia.

With such a history a blood examination was indicated and this revealed the presence of *Dirofilaria immitis* larvae. The hemoglobin level at this time was 11 grams; R.B.C., 5,220,000; W.B.C., 29,740. A fecal examination, using the sugar floatation technique, revealed *Ancylostoma caninum* ova.

Treatment was instituted as follows: Caparsolate Sodium (Abbot) was given I.V. at the rate of 5 ml. daily. In conjunction with this, one Hepicebrin tablet, which is a multiple vitamin, and one Letron tablet, consisting of liver-stomach concentrate, ferrous gluconate and vitamin B complex, were given daily.

The above treatment was continued for five days, by which time the patient was very depressed, listless, with a temperature of 104.6 degrees F. It was decided to discontinue the Caparsolate Sodium. Instead a combiotic, containing penicillin and dihydrostreptomycin, and 5 percent glucose were given daily. Nine days later, when the patient was improved, Caparsolate Sodium was again given.

After a total of nine (five ml.) doses of Caparsolate Sodium had been given, another blood examination revealed a severe anemia with a R.B.C. count of 2,340,000 and a hemoglobin level of 7.26 gm. *Dirofilaria immitis* larvae were also present in the blood stream at this time. Following this a blood transfusion was given and Fide (Allied), which contains phentidine antimonyl tartrate, was given for several days instead of Caparsolate Sodium. Supportive treatment of 5 percent glucose, subcutaneously, and the vitamin and liver tablets was also continued.

Another blood examination on the 30th of April showed only 1,390,000 erythrocytes and a hemoglobin level of 8.24 gm. so blood transfusions were given along with the supportive therapy. Fide therapy was discontinued at this time.

On May 3, a blood examination showed an increased number of erythrocytes, 4,220,000, and a hemoglobin level of 8.92 grams. The dog was in a much improved condition, so was wormed with 9 ml. of N. Butyl Chloride at this time.

On the 9th of May, a blood examination showed 4,170,000 erythrocytes and a hemoglobin level of 10.01 gm., while on the 10th of May no *Dirofilaria immitis* larvae were found in the blood. With further vitamin, liver, iron and dextrose therapy the dog made an uneventful recovery and was discharged May 20, 1952.

Russell H. Anthony '53

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A physician asks how long he should expect the serum agglutination to remain positive in a 27 year old man who was affected with tularemia a year previously and to whom adequate treatment had been administered. The reply indicates that the serum agglutination test will remain positive for at least 35 years. It also stated that no prognostic information is derivable from a blood test and that the test is no guide as to treatment but that the patient will resist infection, if again exposed, all thru his life.

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Growing importance of veterinary medicine in the nation's economy is highlighted by an announcement that United States veterinarians will soon be catalogued in the National Scientific Register.

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A new antibiotic obtained from bacteria of the *Streptococcus* genus has been announced in England and given the name of Streptozyme. It has been tested against *Staphylococcus aureus* as a "germ-against-germ" treatment.

Iowa State College Veterinarian