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A Second Case of *Distoma westermanni* in the United States

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A Second Case

..... OF

Distoma Westermanni

..... IN THE

United States



..... BY

Henry B. Ward, Ph.D.

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A Second Case of
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In a previous number of the VETERINARY MAGAZINE¹ I have given an account of the discovery of *Distoma Westermanni* in the lungs of a cat at Ann Arbor. The importance of the discovery within our country of this dangerous parasite, so common in the East, was emphasized, and an appeal was made for more information as to the presence of lung distomes in various hosts in the United States since, as stated (p. 357), "there is no need of emphasizing the importance of obtaining accurate knowledge as to the extent of the infection among animals, and even man;" . . . though "it is clear that this single case can not be accepted as proof of the *establishment* of the parasite in this country."

Last September I received, through the kindness of the author, a paper² by Professor D. S. Kellicott, of Ohio State University, in which (p. 2) is an account of "*Distoma* sp. in the lungs of the dog." This account recalled *Distoma Westermanni* so strongly that I at once wrote Professor Kellicott asking the loan of some specimens for examination. He had previously written me on the subject, but the letter was forwarded to several addresses and did not reach me until his second came, which was accompanied by a well-preserved specimen in alcohol and a mounted slide of another individual. For his kindness in this respect I am deeply indebted to him. The careful examination of the two, and of the account given by Kellicott, leaves no doubt as to the identity of the form he found with *Distoma Westermanni*.

¹ Vol. I, No. 5, p. 355.

² From Transactions Ohio State Medical Society, 1894.

From Kellicott's account of the discovery of this parasite, some observations of especial interest may be quoted here: "On opening the thorax, the lungs were found to present unusual appearances; there was less carbon, hence the normal color prevailed, but small brown spots were thickly distributed over the entire surface of the pleura, and scattered over the lobes were many tumor-like swellings of a deep red color, contrasting strongly with the general pink of the lung. The tumors were mostly about the roots and along the dorsal borders of both sides. On cutting open the tumors distomes were found within; some were surrounded by a capsule, while others were burrowing after the manner of the large distomes in the livers of sheep and cattle; these burrows were filled with pus and debris. . . . About twenty individuals were removed from the two lungs. . . . The body of the parasite is deep red, and darker along the middle than at the sides, and resembles decidedly the larvæ of certain diptera."

It may be mentioned that the so-called "folded" appearance of the intestines noticed by Kellicott (p. 3) in preserved specimens is normal and characteristic of this species; and the statement that the common genital pore is "in front of the ventral sucker" is evidently a slip, since in the specimens it lies unmistakably just *behind* the ventral sucker. The average length given for the specimens, *i. e.*, 15 to 30 mm., is even somewhat greater than that of those from the cat.¹ As I called attention to the unusual size of the Ann Arbor specimens when compared with the measurements given by Leuckart and others, this seems to indicate that the American form is somewhat larger than the Eastern type.

In regard to eggs, Kellicott has made some interesting observations. He says (p. 4): "They occurred in immense numbers throughout the tissues of the lungs; so numerous were they in the vicinity of the cysts that they changed the hue of the lung to their brown shade; besides those scattered in the tissue were great numbers collected just under the pleura in groups varying from a few to several hundred. These masses were not only in the pleural covering of the lungs, but in the pleura of the thoracic walls, the masses in some instances in rows over the costal vessels, in others opposite the ribs. Very many of the eggs had hatched, the shells were empty, and one

¹See VET. MAG., Vol. I, p. 356.

end had been removed in the characteristic lid-like manner. No immature forms were discovered after search for them." With respect to the host it may be said that Railliet¹ mentions the presence among the specimens of the parasites from Japan exhibited at the Paris Exposition in 1889 of *D. pulmonale* (*D. Westermanni*) from the lungs of the dog. Apart from this, no mention of this Distoma in the dog is known to me.

The discovery of a second case of *D. Westermanni* in the United States is a matter of grave importance, for it renders highly improbable the supposition that the presence of this parasite is due to the importation of a pet animal. That a dog, "part shepherd" (Kellicott) could have been imported from China and then come "from the country" near Columbus, O., is practically impossible. We are then forced to conclude that this parasite is established in America, and in its presence we must recognize one of the most undesirable of human parasites. So common in its native home that it affects 15 per cent of the population, the time may not be far distant when it will be equally common here. The attention not only of physicians and veterinarians, but of all workers in kindred branches, should be called to the pressing necessity of determining its prevalence and its life history at the earliest possible date, for on the former depends the determination of the districts already infected, to confine it to which every effort should be made, and from the latter may be deduced the means of prevention which must be exercised within those districts.

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¹Traité de Zoologie Médicale et Agricole, 2 éds., 1 Fascicule, 1893, p. 370.