Clinical Notes**ANKYLOSTOMA DUODENALE**

(UNCINARIA AMERICANA) *

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Some years ago (1904) the Smithsonian Institution published the collected "Researches in Helminthology and Parasitology," written by the late Prof. Joseph Leidy.¹ The publication consisted of the collected essays and original investigations² from 1844 to 1891. Unusual care was observed that the work should be complete in all details, but, as frequently occurs, owing to the vast amount of scientific literature which now burdens the transactions of our various learned societies, the title of one paper was not catalogued, and the communication was lost to the specialist interested in similar lines of investigation. The brief observations were presented under the title, "Remarks on Parasites and Scorpions, May 5, 1886."

Leidy described three specimens of worms obtained from an anemic cat, presumed to be specimens of *Ankylostoma duodenale*, which were sent to him by Dr. Belfield, of Chicago, for determination. He remarked:

On superficial examination I supposed the worms might belong to *Strongylus tubaeformis*, a closely related parasite infesting the cat. The specimens, however, exhibit the same structure of the mouth as is described in the *Ankylostoma duodenale* of man, . . . [description follows].

The finding of this parasite in the cat in this country renders it probable that it may also infest man with us, and is probably one of the previously unrecognized causes of pernicious anemia.

The occurrence of the same parasite in the cat is also of interest, as heretofore it has only been noticed in man.

In reply to the question of Dr. Weir Mitchell as to how the animal gained entrance to the system, Leidy stated:

It is supposed that ankylostoma gain entrance to man through the drinking-water; and if that is the case the cats probably obtain it in the same way. If cats in this country obtain it from the drinking-water it is probable that with us man may do so.

It is curious that it should be found in the cat; generally we find that similar parasitic worms are found only in animals closely related to one another.

So far as we know, the *Ascaris vermicularis* occurs in no other animal than races of men. The cat has its own ascaris and this is found in various species of cats all over the world. There is another found in the dog, which is also found in the wolf. Again, the ordinary tapeworm of the dog is found in all sorts of dogs. I have a specimen from the wolf in the west, and I have another which Dr. Kane obtained from an Esquimaux dog in the north; as I have said, worms of the same species in the same stage usually only infest animals which are closely related.

The original communication was made to the College of Physicians of Philadelphia and was followed by further observations on *Trichina spiralis* and scorpions from Mexico. The date, May 5, 1886, is of historic interest.

1319 Locust Street.

* Read before the Pathological Society of Philadelphia, May 13, 1909.

1. Researches in Helminthology and Parasitology, by Joseph Leidy, M.D., LL.D., with a bibliography of his contributions to science arranged and edited by Joseph Leidy, Jr., M.D., Smithsonian Miscellaneous Collections, Vol. xlv (1904).

2. Originally published in Proceedings of the Philadelphia Academy of Natural Sciences and elsewhere.

QUININ INHALATIONS IN PERTUSSISWITH A CONSIDERATION OF OTHER PETRÒX
MEDICAMENTS *

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The physician has possibly no more irritating sense of helplessness than when called to treat a patient with whooping cough. Besought from day to day by a distressed mother for a greater measure of relief, he tries one and another drug, only to realize the inadequacy of them all.

A perusal of the literature demonstrates that quinin, despite all the newer drugs, holds its own. More than a year ago, in looking over some literature on the subject, the proposition to bring quinin for its germicidal effect into immediate contact with the respiratory mucous membrane, attracted my attention.

Michael, forty years ago, recommended the insufflation of quinin and benzoin powder into the nostrils. Litznerich mentions in Ziemssen's Encyclopedia that he tried an inhalation of a solution of sulphate of quinin in one case, but that the child was removed from the hospital too soon for any conclusions to be drawn.

At the present time quinin is usually given internally; when given locally it is in the form of a powder combined with minor drugs, and insufflated into the nostrils. The insufflated powder can reach only the prelaryngeal areas. To me, believing as I do that the infecting germ has its habitat throughout the respiratory mucous membrane, the idea of bringing the drug in contact with the whole tract seemed promising. The frequent use of an acid solution of quinin sulphate, by inhalation as suggested by Litznerich, would be sufficiently contraindicated because of its injurious effect on the teeth. To accomplish this purpose, I experimented with the liquid petrox of the National Formulary. Finding that the ammonia of this preparation caused some irritation of the nasal mucous membrane, I substituted therefor potassium. Using a corresponding portion of potassium hydrate makes a thick solution, requiring warming to liquefy. After considerable experimenting, a solution in which the potassium was considerably lessened in amount was found the most satisfactory.

The following is the stock formula¹ as given me by Mr. W. G. Nebig:

R.	gm. or c.c.	
Potassium hydrate	29.6	fl.38
Alcohol, q. s. ad.	200	fl.5iss
Of this add:	5	fl.3iss
To		
Oleic acid	10	fl.33
Liquid petrolatum	25	fl.3iss

One ounce of this preparation will readily dissolve 30 grains of the alkaloid quinin. I have directed this to be used in a nebulizer not less than three times daily, preferably oftener. With very young children a mask or canopy over the head may be necessary. Older children will readily take, even ask for it, nebulized directly into the nostrils. In my experience, I have had no trouble in gaining the confidence of the child and being able to give it a concentrated inhalation of the drug.

* Read before the Northwest Medical Society, May 3, 1909.

1. Some preparations are made by dissolving the drug in the alcoholic solution of potash, some, as quinin, in the finished solution. No more alcohol than the amount stated should be used.

Considering the appalling array of drugs that have been offered for the treatment of pertussis, one hesitates to make any assertions. This, however, is no new drug, but one of recognized utility, only presented in a form that is new, and that will the better bring its virtues to bear on the site of the disease.

I am quite convinced of its value. To cite one illustration: In a family of three children, I gave it to the two older and, observing a little resistance on the part of the baby, not quite 2 years old, I treated it with other drugs. The two older, whose cases were severe at the beginning, immediately began to improve. The baby grew worse. The mother, convinced of the benefits derived, then used it of her own accord on the baby. In a few days she succeeded in getting it to take the vapor in a satisfactory manner, and it also showed immediate improvement. The chief difficulty I have met is that, after the first week, the child is so much better that the mother neglects to use the medicine systematically.

In a brief way, I wish to mention some other of these modified petrox preparations which I have had made and which, I believe, possess virtue sufficient to warrant their addition to our armamentarium. Incidentally I might mention that in the iodine preparations of liquid petrox, the ammonia is rather of advantage, considering the uses of the preparation.

Benzoin compound is a preparation that I have used in this potassium petrox solution and have found very soothing in acute inflammations of the respiratory mucous membrane.

Guaiac is of accepted value in certain forms of tonsillitis and, dissolved in the potassium petrox solution, can be used more frequently than the alcoholic tincture.

Lately, carrying out the suggestion of Dr. B. Alexander Randall, of using dionin for its absorptive effect on cicatricial tissue, I have had made a 3 per cent. solution of dionin. Filling the Politzer bag with this vapor from the nebulizer. I have forced it into the middle ear through the Eustachian catheter. Where there is sclerosis and an old dry perforation, the nebulizer can be directed into the meatus. The value of this drug has hardly had time to be demonstrated, but this method of administration appeals to me as more thoroughly distributive of the drug than as commonly used.

Other resinous and alkaloidal drugs can doubtless be used in the same manner if desired. In closing I wish to express my appreciation of the experimental work and pharmaceutic skill of Mr. W. G. Nebig, which contributed materially to the degree of success so far obtained.

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SCARF-PIN SWALLOWED BY INFANT

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A case report in *THE JOURNAL*, April 10, 1909, p. 1180, of a darning-needle extracted from the epigastrium of an infant, brings to my mind a similar case.

Baby A., 9 months old, breast-fed and in every way a healthy child, had in some manner obtained his father's stick-pin from his tie and swallowed it. The father did not miss the pin until ready to go to bed and then supposed he had left it at the barber-shop. The next day, while the mother was changing the baby's napkin, she noticed something protruding from the anus, and on closer inspection discovered it to be the stick-pin with the large part or head of the pin protruding. The pin measured $2\frac{1}{2}$ inches.

CERVICAL DISLOCATION

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I reported two cases of dislocation of the neck in the *Boston Medical and Surgical Journal*, April 25, 1907. Since that date three additional cases have been seen—one a slight subluxation that was self-reduced during the relaxation of sleep; the other two the cases reported below.

Besides these cases may be mentioned one seen¹ in 1903. This makes a total of six cases in the past five years, five of them during the last two years.

These cases occurred in the practice of four different physicians. This experience tends to establish the probability that the condition is not a rare one, and that its apparent rarity may be due to lack of recognition.

It appears to be true with respect to some diseases that as they have become well understood they have apparently increased in frequency. Appendicitis may be mentioned as an example. Another instance is the disease actinomycosis, of which Dr. Maurice H. Richardson says:²

"Since Dr. C. A. Porter first called attention to the frequency of actinomycosis in the jaw cases at the Massachusetts General Hospital, the number of instances of this disease appearing in different parts of the body was apparently multiplied a hundredfold."

Is it not possible that dislocations of the neck, particularly subluxations, also occur oftener than is supposed? And that the cases which are thought to be torticollis or stiff neck from "cold" are in reality of this nature? Such, at any rate, is my present opinion. I would, therefore, urge careful attention to the points of differential diagnosis, and especially the application of the appropriate movements of reduction in all cases of suddenly acquired stiff neck.

If the articular process on one side has become displaced forward, the head will be more or less tilted toward the opposite side; it may also be rotated toward the opposite side. This is the position in subluxation. If the unilateral dislocation is complete, so that the articulating process has gone far enough to drop down in front of its fellow articulating process, the head will be turned toward the opposite side, but tilted toward the same side as the lesion.

The method of reducing these dislocations, worked out by G. L. Walton, is to make dorsolateral extension and then rotation to place, usually under complete anesthesia; but I have succeeded in one case in reducing the displacement without anesthesia. This treatment is of the greatest satisfaction to the surgeon and of benefit to the patient.

The following cases are of interest, both having occurred during sleep from a sudden twisting movement:

Fifth Case.—A young woman, aged about 19, awoke suddenly in much pain and unable to turn her head. This condition continued during the remainder of the night and the following day, when I was asked to see her and relieve her "stiff neck." The head was tilted to the left and slightly turned to the left; the muscles on the right side of the neck were tense. On the following morning the condition remained much the same. Examination revealed the spinous process of the fourth (?) cervical vertebra about one-half inch out of line with the others. Under ether anesthesia the head was bent diagonally backward and to the left and then rotated to place. At once the condition of the neck was changed from that of rigid stiffness to one of free mobility. On recovery from the anesthetic

1. Walton, G. L.: *Boston Med. and Surg. Jour.*, Oct. 22, 1903.
2. *Boston Med. and Surg. Jour.*, April 9 and April 16, 1908.