

HARRIS (H. F.)

THREE CASES OF AMEBIC DYSENTERY.

BY

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FROM
THE MEDICAL NEWS,
December 3, 1892.

[Reprinted from THE MEDICAL NEWS, December 3, 1892.]

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OUT of a series of seven cases of chronic dysentery, recently examined, amebæ were found in the stools of the three whose histories I give below.

CASE I.—G. A. M., aged thirty-six years, white, a civil engineer, a native of Connecticut, was first seen by me on October 2, 1891. He had never been sick up to three years ago, at which time he moved from the State of New York to Chattanooga, Tenn.; shortly after his arrival at the latter place he was taken sick with an acute attack of dysentery, but fully recovered from the disease in about ten days. After leaving Chattanooga he lived in various parts of middle and southern Alabama, until coming to this place eight months ago. At the time of the beginning of his illness he had, and he has since, during working hours, used water from a well.

The present illness began last June with an acute attack of dysentery; the disease has continued since, with occasional remissions and exacerbations, but at no time has it been so severe as at present. Though really unfit for labor of any kind, he had continued at his work up to the day before I was called; at that time his condition was as follows: Appetite fairly good; prostration very great; bowels loose, and from twenty to forty stools passed in twenty-four hours. Suffered with fever, thirst, constant backache, and a deep tearing pain across the upper portion of the abdomen. Physical examination



showed that he had evidently lost much flesh ; his cheeks were shrunken, and the limbs and trunk were extremely emaciated. The skin was pale and slightly jaundiced, the tongue clean and moist, but slightly reddened at the tip. The temperature was 100° F., pulse 92, and respirations 20. The heart, lungs, liver, and spleen were found normal. The urine was scanty, and contained neither albumin nor sugar. The abdomen was tender, but not at all distended. The stools were watery, usually of a dark-brown color, and very offensive. On microscopic examination there were found pus-cells, red blood-corpuscles, large, round, granular epithelioid cells, multitudes of bacteria, and numerous actively-moving amebæ. Microscopic examination of the sputa was negative.

Rest in bed for a month was ordered, and a diet of egg-albumen and milk, stimulants being added when deemed necessary. A great general improvement followed, as well as a marked amelioration of the dysenteric symptoms. During the last few days of his rest the number of stools was not greater than three or four in twenty-four hours ; but, on resuming work, the number quickly increased to the present average of from ten to fifteen in the same length of time.

CASE II.—Mrs. D., aged twenty-four years, white, married, a native of Tennessee, was first seen by me on October 25, 1891. Three years previously she had moved from her home in Tennessee to this city, where she has since resided. The house in which she has continuously lived since coming here is situated in a not unhealthy suburb, the only source of water-supply being, however, a surface well. The patient had been in perfect health up to ten weeks before, at which time an acute attack of dysentery set in. The movements at first were frequent, painful, and contained blood and mucus ; subsequently the pain grew less severe, and the number of stools decreased, but the disease has continued, sometimes being worse and then better, to the

present time. When I first called to see her she, being very weak, was confined to bed. Her appetite was poor, and she suffered with fever and frequent prostrating sweats; her stomach was irritable, the small quantity of food taken being often vomited. The bowels were evacuated, on an average, once an hour. She had lost much flesh. Physical examination showed that she was thin, the skin yellow, the tongue pale, flabby, and slightly coated; the temperature was 102.1° F., pulse 98, and respirations 26. The heart's action was weak; over the mitral region there was a soft, blowing, systolic murmur. The lungs and liver were normal. The urine contained neither albumin nor sugar. The abdomen was tympanitic, but not greatly swollen; along the course of the colon it was quite tender. The stools were of a dark-brown color, watery, and exceedingly offensive. On microscopic examination they were found to contain pus-cells, red blood-corpuscles, large, round epithelioid cells, many cercomonas, and numerous, very active amebæ; multitudes of bacteria were also always found. Amebæ were never found in the sputa.

During the week that followed my first visit the patient slowly grew worse. The temperature, though remaining constantly above 100° F., was very irregular; it usually reached its lowest point in the early morning hours. Each day the pulse became weaker and more rapid. The exhausting diarrhea continued practically unabated, and by far the greater portion of food taken was at once vomited. At my last visit the patient was only partially conscious, and the nervous system had for several days previously given evidence that it had suffered greatly in the general breakdown. The patient's family having become dissatisfied, other professional assistance was called. I learned later that the woman died on November third.

CASE III.—Katie B., aged thirty-four years, a mulatto, consulted me at my office on December 19, 1891.

Although a married woman, she has earned her livelihood for a number of years, as a washwoman. She was born and reared in middle Alabama, but for the last fourteen years has resided in Atlanta. Her home here is in a low, damp, and by no means cleanly situation, and is in close proximity to what has been, until very recently, an open sewer. The drinking-water is obtained from a shallow well within a few feet of the house. In the month of July, 1890, she was taken sick with an acute attack of dysentery; in a few days the more severe symptoms subsided, but the stools continued loose and somewhat more frequent than in health. Although the number of stools was markedly increased by physical exertion, she continued her usual occupation for six months after coming under my observation. Her appetite has remained fairly good; with the exception of a few restrictions as regards certain articles of food, her usual diet has not been interfered with—her circumstances being such that a milk or egg-albumen regimen was impracticable. She has pains in the back and lower part of the abdomen, occasional headaches, and complains of great weakness. The number of stools passed in twenty-four hours varies widely—sometimes there being not more than two, and, again, twenty or twenty-five. At night the feet are usually somewhat swollen.

When first seen the patient was a large, well-developed, and very healthy-looking woman, but during my subsequent observations, extending over a period of nine months, she steadily lost flesh, along with the gradual impairment of her general health. The tongue was moist and flabby; the temperature varying between 99° and 100° F., the pulse usually about 80, the respiration normal. The heart, lungs, liver, and spleen presented no abnormalities. The urine was of the usual color, acid, sp. gr. 1020; it contained no albumin, but at times a trace of sugar. The abdominal wall was thick, and well rounded; pressure over the region of the left half of the

transverse and descending colon elicited tenderness. The stools were offensive, yellow, semi-solid, and contained but little mucus. On microscopic examination they were found to contain much undigested food, pus, red blood-corpuscles, large epithelioid cells, and a few sluggish amebæ. Examination of the sputum was negative.

An analysis of the symptoms in the foregoing cases shows—notwithstanding the fact that we have in one an example of the severest, and in another the mildest form of the disease—a marked similarity in all, and at the same time they do not in any essential particular differ from cases of the kind reported from various parts of the world. The percentage of uncomplicated cases is certainly here, as yet, much greater than has been observed in other parts of this country, but, from such a limited number of unfinished cases, any general conclusions would, of course, be premature. It is unfortunate that, in the only case in which the actual conditions could have been definitely ascertained, an autopsy was impossible, but there existed no evidence leading to the conclusion that there was either pulmonary or liver involvement.

The amebæ were from 0.020–0.030 mm. in diameter, and they contained many vacuoles, much granular matter, and sometimes microorganisms; it was never possible to definitely make out either nuclei or contractile vesicles. The movements of the amebæ were never rapid—often extremely slow; though they usually became inactive in from twelve to eighteen hours after having been passed, they were upon several occasions observed alive after twenty-four hours' exposure to the temperature of the room, which, during the night, probably went down to 35° or 40° F. Their number and activity would seem to correspond with the severity of the disease. No further description of the amebæ is deemed here necessary, as they would in all other particulars answer to the

several excellent descriptions which have at various times appeared in *THE MEDICAL NEWS*.

The treatment pursued in the three cases was essentially the same. Rest, so far as it was practicable, was enjoined. The only foods allowed were milk and egg-albumen. When thought necessary, alcoholic stimulants were freely given. Instead of ordinary well or hydrant water, the waters of the Rockbridge, Virginia, alum springs were substituted, on account of their reputation in the treatment of the chronic dysenteries of this climate; no improvement having followed after a thorough trial in either case, their use was abandoned. Opium, silver nitrate, copper sulphate, bismuth subnitrate, salol, sulphuric acid, and tannic acid—the latter in solution by enemata as well as by the mouth—were all tried, but with no marked effect. Pepsin was given with the hope that it might favorably influence the disordered digestion, but was followed by no appreciable benefit. Although it is true that while under the influence of opium the number of actions decreased, and also that both the tannic and sulphuric acids, for a time, unquestionably caused a decrease in the number of stools passed, the good effects never persisted after their discontinuance.

On account of its alleged amebacidal action an injection of a quart of a 1 to 2500 solution of quinine sulphate in ice-water was given in Case I for two weeks, and in Case II for three days, once daily, with no benefit, and without affecting the number or activity of the amebæ found in the stools. After having failed to obtain any positive result from quinine sulphate injections, I began a series of experiments for the purpose of ascertaining to what degree the amebæ, as found here, were susceptible to the toxic action of the salts of quinine, and to that of other poisons which could be safely used in rectal injections. Up to the present time my experiments have not been sufficiently numerous to justify any definite con-

clusions, but enough has been done to cause me to doubt the possibility of killing the amebæ with either ice-water or even saturated aqueous solutions of quinine sulphate, in any reasonable length of time. Of the various substances experimented with, none has been found which was at the same time so toxic to the amebæ and so innoxious as quinine bisulphate, which in a 1 to 300 aqueous solution always, within ten minutes, caused the death of the amebæ. Injections of one quart of water holding in solution a dram of quinine bisulphate were given in Case I for two, and in Case II for three successive days; each injection was retained thirty minutes. They were abandoned in Case I for the reason that the pain which they produced was intolerable, and in Case II on account of the hopeless nature of the case. Following the injections the temperature would fall from 1° to 2° F., and the phenomena of cinchonism always developed. No decided improvement followed in either case, but the number of amebæ was undoubtedly diminished.

The Medical News.

Established in 1843.

A WEEKLY MEDICAL NEWSPAPER.

Subscription, \$4.00 per Annum.

The American Journal

OF THE

Medical Sciences.

Established in 1820.

A MONTHLY MEDICAL MAGAZINE.

Subscription, \$4.00 per Annum.

COMMUTATION RATE, \$7.50 PER ANNUM.

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