

THE SPREAD OF INTESTINAL PROTOZOAN INFECTIONS¹

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The author has endeavored for twenty years to impress upon the minds of the medical profession and those engaged in national, state, county and municipal boards of health, the prevalence and spread of intestinal protozoan infections, but for many years little attention was paid these statements. Since it has been only during the last five years that a casual laboratory examination for intestinal protozoa could be secured in any of our (Memphis) hospitals, no statistics on infections were available until recently. However, there has not been any time during the last decade that the author was not treating one to a dozen victims of these infections.

Just at this time I wish to relate a few facts that will be sufficient, I am sure, to appall my audience. We are, at this time, treating or have under our observation no fewer than four doctors, three nurses, four laboratory technicians and one chemist with amoebiasis alone, while many victims are more or less invalidized, ranging from ambulatory-treated cases to the gravest hospitalized ones. Numerous other cases are incompletely treated and are carriers. One such is a truck gardener, and there can be no estimate of the number of people that man has infected. Many years ago I traced nine cases of amebic dysentery to one huckster, two of whom died, while none of the other seven were dismissed cured.

Gardeners, who are raising the vegetables for the tables of this country, are absolutely unrestricted as to the material used for fertilizing their gardens and have no check placed upon the sanitary condition of the purveyors or the sanitary conditions of their garden or their environs; hence, can it be any surprise to an analytical mind that protozoan infections are today rapidly increasing and are widespread in the United States?

I wish to give you some statistical reports from our three leading hospitals to present a faint idea as to the real prevalence of these infections. I believe that only 10 per cent of infected individuals are sufficiently invalidized to cause them to consult a physician and then, I am sorry to relate, many of these are never diagnosed, but are treated empirically for the symptoms which are produced by these animal parasites.

The statistical reports from our three leading hospitals show a total of 409 protozoan infections reported for the year 1928, distributed as follows:

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Amoebiasis or Amebic Dysentery	152
Ascaris lumbricoides (not a protozoan but a round worm)	3
Balantidium coli	1
Chilomastix Mesnili	24
Ciliate (species unclassified)	4
Diarrhea, Bacillary (not protozoan)	8
Diarrhea, Flagellate	80
Oxyuris vermicularis (not a protozoan but a pin worm)	10
Taenia saginata (not a protozoan but a tape worm).....	2
Trichomonas	18
Amoeboid bodies, unclassified (largely encysted flagellates)	107
Total infections	409

One hospital alone, the Baptist Memorial, shows a decided increase in protozoan infections treated, showing 25 infections in 1926, 41 infections in 1927, and 52 infections in 1928.

Raw vegetables are a universal diet in the United States among the adult population. People eating raw vegetables were alluded to by Dr. Smithies, of Chicago, in his recent Memphis address before the Tri-State Medical Association, as manure eaters. The good housewife washes her raw vegetables in clean, cold water, with little thought of the fact that it requires microscopic eyes to see one of these animal parasites, and it requires the temperature of boiling water to destroy them and their cysts. I have seen hucksters wash parsley, lettuce and the like, in dirt pits of stagnant water, obtained from drainage from around their houses. Parsley thus treated in water so filthy that the process was repulsive, was being thrown out with pitch forks, tied into bundles, and then packed into barrels and shipped to various parts of the United States to garnish meat and other dishes served in our fashionable hotels and wealthy homes. The thought occurred to me, while viewing such sights, that it should be a criminal offense to garnish the food of an unsuspecting individual with so dangerous a material.

We are not living in China, but in a country where education should require that common decency be in vogue. Certain of these protozoan infections, namely, the pathogenic flagellate ones, I believe, were imported to this country by a population whose chief vocation is that of raising and handling foods that are, for the most part, eaten raw. These infections have been considered, until recent years, non-pathogenic or non-disease producers. However, since 1912, I have insisted that they or their protein bodies poisoned the victim of their habitation, and thus produced the complex symptoms known as Pellagra. Yet until recently only those closely associated with me, who had observed their universal presence in these cases, were willing to subscribe to the author's views; but now other investigators, among them Dr. Smithies, of Chicago, agree as to the pathogenicity of these parasites.

A few days ago it was my pleasure, while holding a clinic in Jackson, Tennessee, to show to the President of the American Medical Association one of the cases of Pellagra in which both amebic and flagel-

late infection were demonstrated under the microscope. This poor creature, without funds, had to return to his country home, where he will almost surely infect others before he dies. The state, counties and cities fail to hospitalize and treat such cases. Hospitals refuse to accept them. I am permitted to treat every other disease but Pellagra in Memphis hospitals. These are positively excluded in some. "Man's inhumanity to man makes countless millions mourn." At the same time many believe Pellagra is a non-infectious disease. "Consistency; thou art a jewel."

To be orthodox, we must no longer progress in science. Under these conditions, malaria and yellow fever could never have been controlled. Therefore, I am happy to indulge in heterodoxy, that our science might profit.

Protozoan infections are non-reportable except as a cause of death. Our meat, milk and other foods are inspected and those who milk cows or handle milk must be free of certain diseases. Yet our most filthy disease carriers, who are handlers of our vegetables, are unnoticed. Not a single dollar is provided for the use of our National, State, County or Municipal Boards of Health to check or lessen the spread of protozoan infections or to inspect truck gardens and the manner of their preparation of raw vegetables for our tables.