LETTERS TO THE EDITOR

many ulcers recur years later after long periods of quiescence, so that a year is not long enough to distinguish between new and recurring ulcer.

REFERENCES

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Investigation of a Waterborne Outbreak of Giardiasis Using Serologic Testing by IFA

Recently, researchers have described an indirect immunofluorescent antibody (IFA) test that uses G. lamblia trophozoites cultured in vitro as antigen to detect antibodies in serum. In the last week of December 1981, a town health officer reported to us three cases of stool-positive giardiasis from persons on one water system in a small Vermont community. An epidemiologic and environmental investigation was done to determine if these cases contributed to a much larger waterborne outbreak. However, it was apparent after the investigation began that we were notified too late to perform most diagnostic tests for the bacterial, viral, or parasitic agents since the peak of the outbreak occurred the last week of November 1981.

We surveyed 16 of 18 households on the water system and 22 of 25 households immediately surrounding the system for illness. A total of 24 individuals with a history of diarrhea were identified and all were in households on the water system (p < 0.001).

We used the IFA procedure in this investigation to assist us in determining that Giardia may have been the most likely cause of this outbreak. A total of 11 sera were collected from persons on the system; eight of these were taken from ill persons. Eight well persons off the system had sera drawn. These sera were analyzed at the Centers for Disease Control in Atlanta, Georgia, using the IFA test.1

The inverse geometric IFA titers of those who were town water drinkers were higher (GMT = 18.4) than those who were not water drinkers (GMT = 2.5) (p < 0.02 by Wilcoxon-Rank-Sum test). Using the criterion of a titer of 1:32 or greater as positive for recent infection, five (45 per cent) of the 11 serum specimens taken from town water drinkers were positive compared to none of eight who were not water drinkers (p = 0.040, by Fishers exact). The group that had serologies drawn was divided into those who had cases of illness and those who had not. Those who had illness had higher inverse geometric titers (GMT = 24.7) than those who were not ill (GMT = 2.9) p < 0.02, by Wilcoxon-Rank-Sum test).

In this outbreak, we were able to recover G. lamblia from the stools of only four persons probably because of a delay in notifying the health department. Environmental inspection of the water system identified an unprotect ed, unfiltered, unchlorinated contaminated spring as a water source. The IFA serologic results supported the hypothesis that Giardia was at least one of the agents that caused this outbreak.

Giardia are known to be transmitted through drinking water.2 In the future, investigators should examine how serum specimens could be used to identify cases of giardiasis. This case-finding technique could help identify more infections with giardia and aid in the epidemiologic determination of the sources of illness.

REFERENCES

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Addendum to Infant Botulism Study

In our recent article on infant botulism (Morris et al, AJPH 1983; 73:1385–1388) we inadvertently left several names out of the acknowledgments. Dr. Robert A. Gunn was responsible for designing and initiating the infant botulism surveillance system at the Centers for Disease Control; Drs. Robert E. Black, Steven S. Arnon, and Harold Sours contributed to the CDC surveillance effort. We would appreciate it if this oversight could be brought to the attention of your readers.

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