

NATIONAL CYCLOSPORIASIS OUTBREAK

Background

Cyclospora cayetanensis is a unicellular coccidian parasite responsible for several recent US outbreaks of food- and waterborne gastrointestinal illness. If untreated, infected individuals may experience chronic diarrheal illness for a month or more. The Acute Communicable Disease Control Unit investigated a cyclospora outbreak associated with a banquet which caused illness in 58 individuals.

Methods

ACDC was notified on May 5, 1997, of chronic diarrheal illness associated with attendance at an April 1, 1997 retirement banquet held at a Los Angeles club. ACDC interviewed attendees retrospectively. A trace-back investigation was attempted for implicated food items.

Results

A total of 45/51 (90%) guests and 13/49 (27%) employees reported illness. No other possibly exposed groups reported illness: 81 other club members who ate that day and 180 guests at banquets on April 2 and 3. The banquet meal included cocktails, appetizers, salad, entrees of sea bass or veal, and chocolate tort with ice cream, hot fudge and fresh raspberries, strawberries, blueberries, and blackberries. Club employees also consumed banquet food. Main symptoms reported were profuse, watery, explosive diarrhea, gas, bloating, and fatigue; fever and vomiting was rare. Median onset was April 8, one week after the banquet; the median duration of illness was one month. Symptoms were often intermittent.

The Public Health Laboratory analyzed 25 specimens from 14 symptomatic people (employees and guests); 7 stool samples contained *Cyclospora cayetanensis* oocysts.

The epidemiological analysis showed berries as a group and salad to be associated with illness. No other foods were implicated. The majority of the other U.S. outbreaks implicated raspberries, but in the LAC outbreak the sample size was too low to conclusively implicate either berries or salad as the causative food item. As the raspberries were mixed with 3 other berry types, it was impossible to differentiate the relative risks. The LAC raspberries were traced back to either Guatemala or Chile; however, trace backs from other US outbreaks implicated only Guatemalan raspberries.

This outbreak represents 1 of at least 45 clusters of cyclosporiasis cases in 8 states and Canada in the spring of 1997, with over 550 laboratory-confirmed cases and at least 1450 clinically compatible cases in the US and Canada. Fresh raspberries were served in at least 19 events. The size and magnitude of the national outbreak resembles the spring 1996 cyclospora outbreak, which resulted in almost 1000 laboratory confirmed cyclosporiasis cases across the US and Canada.

Cyclosporiasis is mainly a fecal-oral disease but direct person-to-person transmission has not been observed. Oocysts shed in stool are not infectious (i.e., do not sporulate) until days or weeks after excretion. Indirect transmission can occur if an infected person defecates in the environment and

excreted oocysts have sufficient time and appropriate conditions to become infectious. Whether animals can become reservoirs of human infection is unknown. Whether animals can become reservoirs of human infection is unknown.

Trimethoprim-sulfamethoxazole is an effective treatment for cyclosporiasis. In most laboratories, routine screening for ova and parasites (O&P) does not include an examination for cyclospora, since laboratory diagnosis requires additional techniques not performed for the standard O&P assay. Therefore, physicians should specifically request testing for cyclospora when submitting stool specimens to the laboratory.