EPIDEMIOLOGY SECTION

CONNECTICUT EPIDEMIOLOGIST

State of Connecticut Department of Health Services
Frederick G. Adams, D.D.S., M.P.H., Commissioner

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POST-TRANSFUSION BABESIOSIS CASE REPORT

A previously healthy 46-year-old man with a childhood splenectomy was admitted to a Connecticut hospital for upper GI bleeding. Four units of packed red cells were transfused between August 16 and 19, 1989. He was well upon discharge, although the cause of GI bleeding was not identified.

Two weeks later he developed fever, chills and headache just after his arrival on Nantucket Island on September 2 for vacation. After three days of unsuccessful treatment with erythromycin and acetaminophen, babesiosis was diagnosed on September 12 by observation of typical intra-erythrocyte inclusions on a peripheral blood smear. He gave no history of tick bite or other recent travel to endemic areas for babesiosis.

The patient was hospitalized for treatment with clindamycin and quinine sulfate. He was asymptomatic when discharged from the hospital on September 27, although his course was complicated by repeat GI bleeding requiring another 11 units of red cells.

A review of the medical history of the four involved blood donors revealed only one who lived in an endemic area for tick-borne disease. This donor was bitten by a tick three weeks prior to the blood donation on July 13. The red cells from this donation were refrigerated five weeks under standard blood bank conditions before transfusion to the patient. The donor developed no symptoms of illness and took no antibiotics. The donor was frequently outside and had a number of previous tick bites.

A new blood sample procured from the donor on September 25, three months after the tick bite, had a babesia antibody titer of 1:256 (positive is over 1:64) indicating recent infection. The transfusion recipient also had a babesia antibody titer of 1:256. Both the patient and the blood donor grew out Babesia microti when their blood was inoculated into hamsters (blood samples from 9/16 and 9/25, respectively). Retrospective testing of serum samples obtained by the donor's physicians showed the donor's babesiosis antibody titer to be 1:256 on June 20 immediately following the tick bite, with a sixteen-fold increase to 1:4096 one and two months later. The serologic data are consistent with the donor having been infected by an earlier tick bite before the reported bite on June 20.

Editorial Comment

Transmission of babesiosis by transfusion of packed red cells or platelets from blood donors who are chronic asymptomatic carriers of B. microti has been reported previously.[1] This is the first case of post-transfusion babesiosis in Connecticut and the sixth reported in the United States.

Together with six other recent cases of babesiosis which were acquired by tick bite in southeastern Connecticut,[2] this case suggests that the reservoir of infected ticks and asymptomatic infected people may be larger than is generally appreciated. Clinicians should be alert to the possibility of this disease, whether acquired by tick bite or transfusion.

Babesiosis usually causes symptoms only in immunosuppressed, asplenic, or elderly individuals. Patients who develop fever and signs of hemolysis and who have a history of tick bite or transfusion should be evaluated for babesiosis with review of a peripheral blood smear by an experienced examiner. Serologic testing is available through the State Department of Health Services. Treatment of documented babesiosis has been most successful with a combination of quinine sulfate and clindamycin.[1] All cases of babesiosis should be reported to the Department of Health Services (566-5058).

REFERENCES

1. Wittner M, et al. Successful Chemotherapy of Transfusion Babesiosis. Ann Intern Med 1982; 96: 601-604.

2. Centers for Disease Control. Babesiosis - Connecticut. MMWR 1989; 38: 649-650.

EOSINOPHILIA-MYALGIA SYNDROME

Introduction

A new and potentially life threatening complex of symptoms has recently been linked to therapeutic use of single entity preparations of the essential amino acid L-tryptophan (LT). L-tryptophan is a dietary supplement which can be purchased without prescription and has been used for sleeping difficulties, depression, relief of premenstrual syndrome and as a nutritional supplement. The most prominent features of the LT-related illness are an elevated eosinophil count and severe, sometimes disabling, myalgia. Consequently, the condition has been termed Eosinophilia-Myalgia Syndrome (EMS).

The illness was first identified during the summer of 1989 by several rheumatologists from New Mexico. All of the cases had been taking L-tryptophan preparations. Their unusual findings were initially investigated by the New Mexico Health Department. At the same time, the Centers for Disease Control (CDC) started receiving reports of similar illnesses from other regions across the United States. By early November, it was apparent that there was a national epidemic of EMS. The Connecticut Department of Health Services (CDHS) is assisting the CDC in EMS case investigations in Connecticut.

Case Definition and Symptoms

The most recent CDC case definition of Eosinophilia-Myalgia Syndrome is an illness characterized by:

1. Eosinophil count > 1000 cells mm^3;

2. Generalized myalgia (at some point during the course of illness) of sufficient severity to effect a patient's ability to pursue his or her usual daily activities;

3. Absence of any infection or neoplasm that could account for 1 or 2 above.

Because EMS has only recently been recognized, very little is known about the possible manifestations of the illness. However, other reported symptoms include: an initial respiratory prodrome with cough, shortness of breath, and pulmonary infiltrates; arthralgia without frank arthritis; edema of the limbs; sclerodermiform skin thickening; skin rash; neuropathy (mononeuritis multiplex); cardiac arrhythmias; mildly elevated transaminase levels; and leucocytosis.

Most patients experienced a subacute onset with various combinations of symptoms developing over several weeks.

In very few patients, the syndrome appears to resolve rapidly after discontinuation of LT containing products. However, the majority of individuals have improved slowly.

In some patients, the disease appears to continue to progress even after use of L-tryptophan products has been stopped. An undetermined percentage of patients may develop progressive and potentially fatal ascending neuropathy. Interim guidance for physicians on the EMS was published in the Annals of Internal Medicine, January 15, 1990.

Epidemiology and Surveillance

As of March 22, 1411 cases with 19 deaths of EMS had been reported to the CDC. Case reports have come from 50 states and the District of Columbia. The largest number of cases outside the U.S. has been found in West Germany. In addition, cases have been reported from Canada, the U.K., France, Israel and the Yemen Arab Republic.

As of April 6, 1989, 14 cases have been reported in Connecticut: six from Hartford County, five from Fairfield County, two from New Haven County and one from New London County. Ten women and four men between the ages of 31 and 70 years old have been affected. Reported eosinophil counts ranged from 1368 to 23,760 cells per mm^3. One Connecticut death related to EMS has been reported.

Surveillance activities around the country are being handled by state health departments which then report cumulative numbers of possible cases to CDC. Any physician in Connecticut who has identified a possible case of Eosinophilia-Myalgia Syndrome should contact the Connecticut Department of Health Services, Epidemiology Section at 566-5058.

Recall of LT Containing Products

The federal Food and Drug Administration (FDA) has asked for a recall of all single entity or major ingredient LT products. The recall applies to all LT products in tablet, capsule, caplet, powdered or liquid form along with multi-ingredient, non-protein supplements that also contain LT. The only products not subject to recall are certain protein supplements, infant formulas and special dietary foods, and intravenous or oral solutions, in which LT is used to improve the quality of the protein and is no more than 1.6 percent of the total protein by weight.

For further information regarding the L-tryptophan recall, contact the Department of Consumer Protection at 566-2274 or 566-3388.

LYME DISEASE STUDY

Patients with the rash of Lyme disease, erythema migrans (EM), are being sought by the University of Connecticut Health Center Lyme Disease Clinic for randomized trials of the efficacy of oral cefuroxime (ceftin) versus doxycycline. Patients must have the rash to qualify for treatment.

This study hopes to determine: (a) whether cefuroxime is an acceptable or better alternative to doxycycline, and (b) the rate of relapses and later complication in patients treated for 20 days. All patients will be studied serologically during the course of their one year follow-up.

Please call 679-3245 (Debbie Kaplan, RN) or 666-6951 x6505 (Dr. Sam T. Donta) for patient referrals or for more information.

REPORTS OF SELECTED COMMUNICABLE DISEASES, CONNECTICUT, FINAL SUMMARY, 1988 - 1989

DISEASE	1989	1988	% CHANGE FROM 1988
AIDS	444	402	+10.4%
GONORRHEA	10,291	11,004	-6.5%
SYPHILIS P&S	1,139	724	+57.3%
MEASLES	229	15	+1426.7%
RUBELLA	0	0	0.0%
TUBERCULOSIS	160	141	+13.5%
HEPATITIS A	320	343	-6.7%
HEPATITIS B	240	251	-4.4%
SALMONELLOSIS	1,055	1,213	-13.0%
SHIGELLOSIS	336	186	+80.6%

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