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Spores

A recent article in the May 29th issue of New England Journal of Medicine reported a 1996 nationwide outbreak of cyclosporiasis that involved 1465 cases in 20 states that was associated with raspberries imported from Guatemala. In the June 13th edition of the Morbidity and Mortality Weekly Report (MMWR), the Centers for Disease Control and Prevention (CDC) reported 21 clusters of cyclosporiasis cases in eight states and a Canadian province in 1997 with the probable source again being raspberries imported from Guatemala. Prevention methods in Guatemala that were put in place after the 1996 outbreak clearly were not sufficient and importation from that source has been stopped until there can be assurance that it will not re-occur.

The editorial note in the MMWR stated that Cyclospora infection should be considered in persons with prolonged diarrhea and specific laboratory testing for this parasite should be requested. In fact, there is a group of intestinal spore-forming protozoa that should be considered and tested for in any case of diarrhea of 5 days or more duration; these are Cryptosporidia, Microsporidia, Isospora and Cyclospora. Each of these have come to particular attention in immunodeficient persons, but can occur in the immunocompetent and should be in the differential diagnosis of extended diarrheal syndromes.

These are all "new" or emerging pathogens, having been recognized for less than 20 years. Needless to say, our knowledge of their epidemiology is rudimentary because they are not sought, nor are they reported. We recommend the outstanding review by Goodgame in the Feb 15th issue of Annals of Internal Medicine. He points out that these organisms have much in common in that they are all intracellular protozoa in intestinal epithelia that shed spores or oocysts in the stool; are common in developed countries or places with poor sanitation; and are transmitted by the fecal-oral route, person-to-person contact, and (most of them) have been shown to be transmitted in water or food. Most are endemic in children, may cause traveler's diarrhea, and have caused common source epidemics. Clinically, they all can (and often) cause asymptomatic infection, or they may cause self-limited gastroenteritis in immunocompetent persons; chronic diarrhea and more serious illness may occur in those who are immunodeficient. However, all of them regularly manifest as more prolonged diarrhea than other bacterial and viral agents; the duration is often two weeks and may extend to a month or more.

How are they diagnosed? The stool examination is most important. The spores or oocysts are microscopically recognizable, ranging from 1-30 microns in size. In most laboratories, the appropriate stains will not be used in the standard ova and parasite request. Acid fast stains are used for Cryptosporidium, Isospora, and Cyclospora, and a modified trichrome stain for Microsporidium. In addition, a monoclonal antibody-based immunofluorescent stain and an enzyme immunoassay are available for Cryptosporidia.

The important steps are first, to consider the diagnosis; second, to obtain a stool specimen; third, to specify for which spore forming protozoa you want it examined; and fourth, let us know about it if it is positive. We are interested in their occurrence and would like to receive reports of cases even though we have not yet gone through the mechanism of making them reportable diseases. However, the example of cyclosporiasis in raspberries and the numerous outbreaks of water borne cryptosporidiosis demonstrates the importance of such reports in identifying common sources and taking preventive measures.

NIH Conference

In March of this year, the National Institute of Health (NIH) sponsored a consensus development conference to develop recommendations related to the diagnosis, treatment, and prevention of hepatitis C virus (HCV) infection. The recommendations of this panel include:

1) Screening of individuals with a history of risk factors for HCV, using an EIA test for anti-HCV; a supplemental RIBA and/or qualitative PCR test for HCV RNA should be performed in those testing positive by EIA.

2) Qualitative and quantitative PCR testing for HCV RNA must be interpreted cautiously due to assay variability within and between labs. Rigorous proficiency testing has been recommended for clinical labs performing these assays.

3) Liver biopsy is indicated when histological findings will assist in the patient's management.

4) Guidelines for the use of interferon-alfa and other anti-viral agents in patients infected with HCV are detailed in this report. Initial therapy should be 3 million units three times per week for 12 months.

5) Due to the strong correlation between alcohol consumption and disease progression, HCV-infected individuals should be encouraged to severely limit or abstain from consuming alcohol. Those addicted to alcohol or other drugs should be helped to obtain treatment for their addiction.

6) Hepatitis A and B vaccination is recommended for all HCV-positive individuals.

7) Patient support groups should be encouraged.

Recommendations to prevent HCV transmission include:

1) Awareness and strict adherence to universal/bloodborne pathogens practices.
2) Counseling of HCV-infected individuals not to donate blood, plasma, organs, tissues, or semen, and screening of donors to defer those with current or past risk factors.
3) Use of safer sexual practices in all persons with multiple sexual partners (> 2 partners in 6 months). Due to the low risk of transmission in monogamous long-term relationships, couples where one partner is infected should be counseled regarding this risk, and allowed to decide for themselves whether to changes sexual practices.
4) Sharing of anything potentially contaminated with blood should be discouraged, including razors, toothbrushes, and illicit drug equipment. Use of needle exchange programs should be encouraged in individuals addicted to injected drugs.
5) Pregnancy is not contraindicated in HCV-infected women. Breast feeding is considered safe. Children born to HCV-infected women should be tested for anti-HCV at, but not before, one year of age.

A complete copy of these recommendations can be obtained from the NIH at:

NIH Consensus Program Information Center
PO Box 2577
Kensington, MD 20891
Telephone: 1-800-644-2667
Fax: (301) 816-2494
Internet address:
http://odp.od.nih.gov/consensus/

Epiglottitis

On September 19, 1996, a 74 year old female presented to the office of her primary care physician complaining of an acute onset of difficulty in swallowing the previous day, preceded by a few days of "flu-like" symptoms (mainly nausea). She had no fever, chills or cough but did have acute throat pain and swelling. She was referred to an otolaryngologist who found an acute supraglottitis with epiglottitis on nasopharyngoscopy. The patient was admitted to the hospital the same day; a blood culture collected on admission grew *Neisseria meningitidis* Group C. In consult with an infectious disease physician, the patient was treated with cefuroxime IV and aerosolized oxygen. No ventilator support was required. A chest film and cerebrospinal fluid collected on September 23 were both negative. The patient was discharged the following day with a diagnosis of septicemia related to epiglottitis.

Epiglottitis is a potentially fatal manifestation which, in the past, was frequently seen in association with *Haemophilus influenzae* serotype b (Hib) invasive disease. Since the advent of the Hib vaccine in 1985, the incidence of invasive Hib disease and, consequently, the incidence of epiglottitis have dropped dramatically. *N. meningitidis*—associated epiglottitis has rarely been documented as the cause of acute epiglottitis.

Immunization Update

Mark your calendars: **Thursday, September 11, 1997 from 8:00 - 10:30am** is the date for the next live interactive CDC immunization videoconference. The program will provide updates on: new vaccines and vaccine combinations, polio vaccine, rotavirus vaccine, and new recommendations from ACIP for measles, hepatitis B, pneumococcal, and influenza vaccines. The course will be taught by William L. Atkinson, MD, MPH, Medical Epidemiologist with the CDC. Continuing education credits will be available for a variety of professions. The course is being co-sponsored by Virginia Mason Medical Center in Seattle. If you would like to receive registration materials, call (206) 205-5803, or email amy.patton@metrokc.gov.

To Report:
AIDS 296-4645
Tuberculosis 296-4747
STDs..... 731-3954
Communicable Disease 296-4774
24-hr Report Line..... 296-4782
Disease Alert:
CD Hotline 296-4949

REPORTED CASES OF SELECTED DISEASES
SEATTLE-KING COUNTY 1997

	CASES REPORTED IN JUNE		CASES REPORTED THROUGH JUNE	
	1997	1996	1997	1996
VACCINE-PREVENTABLE DISEASES				
Mumps	0	0	3	2
Measles	0	0	0	4
Pertussis	3	20	97	118
Rubella	0	1	1	2
SEXUALLY TRANSMITTED DISEASES				
Syphilis	1	0	4	0
Gonorrhea	74	71	386	523
Chlamydial infections	225	261	1519	1776
Herpes, genital	49	58	320	376
Pelvic Inflammatory Disease	19	31	146	174
Syphilis, late	5	6	23	39
ENTERIC DISEASES				
Giardiasis	21	8	107	105
Salmonellosis	28	33	111	116
Shigellosis	14	5	54	30
Campylobacteriosis	41	24	146	149
E.coli O157:H7	3	1	12	6
HEPATITIS				
Hepatitis A	38	30	229	133
Hepatitis B	6	8	22	51
Hepatitis C/non-A, non-B	1	3	8	7
AIDS	20	36	165	251
TUBERCULOSIS	19	7	64	52
MENINGITIS/INVASIVE DISEASE				
Haemophilus influenzae	0	1	1	2
Meningococcal disease	0	0	10	14