Yersinia Enterocolitica Infection

Yersinia Enterocolitica is a bacteria that is present worldwide. It is also called Yersinia or Y. enterocolitica. It grows in many places including fresh water, contaminated foods, and in a wide range of wild and domestic animals (including pigs, cows, sheep, dogs, cats, birds, rabbits, foxes and rodents). Because this bacteria can grow at very low temperatures (as low as 39 ° F (4 ° C)), refrigerated meats and contaminated raw vegetables can be the source of infection if food is not cleaned or cooked appropriately.

It is sensitive to heat and acidity. It can cause diarrhea and abdominal pain. It is most common in young children (from 1 to 4 years old). Inflammation of the small intestine and colon (*enterocolitis*) occurs following ingestion of contaminated food and occasionally water. Even less commonly, infection may occur following direct contact with infected animals or persons.

PREVENTION

The first step in preventing Y. enterocolitica infection is to assume that all foods may cause foodborne illness. Follow these steps to prevent this infection:

- Wash hands, food preparation surfaces and utensils thoroughly before and after handling raw foods to prevent recontamination of cooked foods.
- Keep refrigerated foods below 40° F (5° C). However, this bacteria can survive and multiply at this temperature.
- Serve hot foods immediately or keep them heated above 140° F (60° C).
- Divide large volumes of food into small portions for rapid cooling in the refrigerator. Hot, bulky foods in the refrigerator can raise the temperature of foods already cooled.
- Remember the danger zone is even lower than 40° F (5° C) and below 140° F (60° C).
- Follow approved home-canning procedures. These can be obtained from the Extension Service or from USDA bulletins (in the US).
- Heat canned foods thoroughly before tasting.
- **When in doubt, throw it out.**
- Infants, young children, older persons and anyone with a compromised immune system are especially susceptible to foodborne illnesses. These people should not consume inadequately cooked or raw meat products or milk or cheese products that have not been pasteurized.
- You are the key to preventing foodborne illness. By observing the simple rules of good handling, food contamination can be stopped.

SYMPTOMS

Common symptoms that can last over many days and up to three weeks include:

- Fever.
- Diarrhea.
- Abdominal pain.

Nausea and vomiting are less common. Blood or mucus may be present in stool. Infection can mimic acute appendicitis because of pain and tenderness over the right lower quadrant of the abdomen. Less common complications occur because of spread of the infecting bacteria to the blood and other body organs. This spread of bacteria is more common in immune compromised patients. Also, pain and inflammation of many body joints (*reactive arthritis*) may occur beginning three days and as late as one month after initial symptoms of Yersinia infection.

DIAGNOSIS

Diagnosis can only be made by growing (*culturing*) the bacteria from a sample of stool or other body site fluids. Special culturing of stool is needed to find the organism. This is not commonly done unless your doctor highly suspects Yersinia infection or when a number of people get symptoms following a common meal.

TREATMENT

No specific treatment is needed by most patients. Symptoms usually go away spontaneously. Make sure you drink plenty of fluids, especially if you are feeling sick to your stomach (*nausea*), vomiting and diarrhea.

HOME CARE INSTRUCTIONS FOR NAUSEA AND VOMITING

- For infants. Use an oral rehydration solutions (ORS), or suitable alternatives for fluid restoration. After correction of loss of body fluids (*dehydration*), other clear liquids that are appealing to the child may be added.
- For infants and children. Record fluid intake and urine output. Dry diapers for longer than usual may indicate dehydration. Diet may be advanced as tolerated.
- For children and adults. Drink small amounts of fluids frequently, so that you are drinking at least 2 quarts a day for an adult or as your physician suggests for a child. Take sips frequently, not overloading your stomach with too much fluid at one time as this may worsen the nausea.
- Only take or give your child over-the-counter or prescription medicines for pain, discomfort, or fever as directed by your caregiver. Do not give aspirin to children because of the association with Reye's Syndrome.
- Until your diarrhea is under control, you should drink clear liquids only, that is, anything you can see through such as water, broth, clear soft drinks. (Carbonated soft drinks should be allowed to go “flat” before drinking).
- Once you are tolerating clear liquids and keeping them down, you may progress to full liquids, soups, juices, and ice cream or sherbet. If they are well tolerated, begin to add bland foods to your diet.

HOME CARE INSTRUCTIONS FOR DIARRHEA

Avoid:

- Milk.
- Fruits.
- Tobacco.
- Alcohol.
- Extremely hot or cold fluids.
- Too much intake of anything at one time.

When your diarrhea stops, you may add the following foods that help the stool to become more formed:

- Rice.
- Bananas.
- Dry toast.
- Apples with no skin.

Once these foods are tolerated, you may add low fat yogurt and low fat cottage cheese. They will restore the normal bacterial balance in your bowel. Always wash your hands after using the bathroom to avoid spreading bacteria and viruses.

SEEK IMMEDIATE MEDICAL CARE IF:

- You are unable to keep fluids down.
- Vomiting or diarrhea become persistent or increase in severity.
- Abdominal pain increases or localizes. (Right sided pain can be appendicitis and left sided pain in adults can be diverticulitis.)
- You develop a high fever (an oral temperature above 102º F (38.9º C) for over 3 days.
- Diarrhea becomes excessive or contains an increasing amount of blood or mucus.
- You experience excessive weakness, dizziness, fainting or extreme thirst.
- You experience significant weight loss. Checking weight 2 to 3 times per day in babies and children will help verify adequate fluid replacement. Your caregiver will tell you what loss should concern you or suggest

another visit to your personal physician.

- Record your hospital or clinic weight today. Compare this to your home scale. Record all weights and time and date weighed. Try to check weight at the same times every day.

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