

Listeria exposure in pregnancy

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A voluntary recall of stone fruits from Wawona Packing Company was issued on July 19, 2014 due to potential contamination with *Listeria monocytogenes* in fruits distributed to Trader Joe's, Whole Foods, Sam's Club, Walmart and other major grocery stores. Other recalls and outbreaks of listeria in recent years have involved deli meats, unpasteurized dairy, soft cheeses, smoked seafoods, raw sprouts, and other fruits, such as cantaloupes.

Listeriosis, the disease caused by *Listeria monocytogenes*, is a potentially serious infection caused by ingestion of contaminated foods, with an incubation period that can range from 3-70 days. The most common presentation is fever and flu-like symptoms. Other symptoms can include stiff neck, confusion, weakness, and vomiting. Some individuals also experience diarrhea prior to onset of systemic symptoms. Severe cases in immunocompromised individuals can present with seizures, cranial nerve deficits, tremor, endocarditis or brain abscess.

The disease is of most concern in individuals with weakened immune systems, including pregnant women and newborns. Listeriosis is rare, but is about 20 times more common in pregnant women than in the general population. The incidence of listeriosis in pregnancy is 12 per 100,000 and can occur at all stages of pregnancy. Severe listeriosis may lead to miscarriage, stillbirth, premature labor, and low birth weight. After birth, neonates can experience respiratory distress, pneumonia, fever, rash, jaundice, lethargy, sepsis, meningitis, or granulomatous infantisepsis, a rare disseminated form of disease characterized by widespread microabscesses and granulomas. Neonatal death has also been reported.

Diagnosis can only be made with culture of sterile compartments, such as maternal blood, amniotic fluid, or spinal fluid. Postnatal placental culture can also be obtained for confirmation. The laboratory should be notified of concern for *Listeria* due to the need for targeted culture techniques. Screening or diagnostic fecal or vaginal cultures are **not** useful due to asymptomatic carriage of *Listeria monocytogenes* in some women. Therefore, in a symptomatic pregnant patient presenting after exposure to *Listeria*, the recommended diagnostic test is blood culture, along with a complete blood count to assess for leukocytosis. *Listeria*-specific antibody testing is not routinely available and is neither useful nor recommended in the setting of potential *Listeria* exposure.

Penicillin and ampicillin are the most extensively used therapies in the treatment of listeriosis. Patients with true penicillin allergy can be treated with trimethoprim/sulfamethoxazole. Vancomycin can be used in cases of endocarditis or meningitis. Wild-type listeria has been shown to be sensitive to all three of these classes of antibiotics. Post-exposure antibiotic prophylaxis in the absence of symptoms, even for pregnant patients, is not recommended.

In summary, SMFM has reviewed the existing evidence and recommends the following:

- Absolute risk of listeriosis after a documented exposure is rare, even in pregnant women.

- Blood cultures should be obtained in a pregnant patient who is febrile or has other systemic symptoms (particularly gastrointestinal complaints) after probable exposure to listeria. Amniocentesis may also be considered when clinically appropriate in a symptomatic patient: in such cases, amniotic fluid should be cultured for *Listeria* in addition to other indicated testing..
- If blood or other samples for culture are obtained, the clinical lab should be made specifically aware of the concern for *Listeria*, since targeted culture techniques are important.
- Empiric post-exposure prophylaxis in the absence of symptoms is not recommended.

References:

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