



Listeriosis

Insight - March 2013

Listeriosis is a notifiable (Group B) disease. Notification must be sent in writing to the Victorian Department of Health within five days of diagnosis.

Infectious agent

L. monocytogenes is a gram-positive bacterium which is widespread in the environment. It is common in sewage, silage, sludge, birds, wild and domestic animals. It is a common contaminant of raw food and survives well in refrigerators (at 4-10°C). It is an important cause of food-borne outbreaks.

Clinical features

Healthy adults are not usually affected, or may have transient flu-like symptoms.

Listeriosis predominantly affects:

- Immunocompromised people, eg. those on corticosteroids, diabetics, cancer patients
- the elderly
- pregnant women and their fetuses

In pregnant women, symptoms may be mild. A temperature before or during birth may be the only sign of infection. However the infection can be transmitted to the foetus through the placenta, which can result in stillbirth or premature birth. Babies may be severely affected with conditions such as septicaemia or meningitis (early-onset neonatal listeriosis).

Late-onset neonatal listeriosis generally affects full-term babies who are usually healthy at birth. They become symptomatic several days to weeks after birth (a mean of 14 days). Infection is possibly acquired from the mother's genital tract during delivery or postnatally through cross-infection.

In non-pregnant cases, listeriosis usually presents as a sudden onset febrile illness. It may be associated with septicaemia, acute meningoencephalitis, or other focal infections such as pneumonia, endocarditis, infected prosthetic joints, localised internal abscesses and granulomatous lesions in the liver and other organs.

The reported case fatality rate has been around 30 percent in both pregnancy and non-pregnancy related groups.

The incubation period is often unknown, however outbreak cases usually occur 3-70 days (average three weeks) after a single source exposure.

Laboratory diagnosis

In a febrile patient, diagnosis is predominantly from Blood Cultures (preferably two sets should always be collected).

Culture of other sterile sites may provide a diagnosis. These include: CSF, placenta, meconium, foetal gastrointestinal contents.

Culture from faeces or serology are **not** useful.

Treatment

Prolonged courses of IV antibiotic therapy in hospital is required.

Note: Cephalosporins are **not** effective.

References:

1. The Blue Book. Guidelines for the Control of Infectious Diseases. Victorian Government Department of Human Services, May 2005.
2. Manual of Clinical Microbiology, 10th Edition, ASM Press. 2011



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Dr Waring graduated from Medicine at UWA. She completed her FRCPA in Medical Microbiology, Melbourne, Infectious Diseases Fellowship at Stanford University. Dr Waring worked as a Medical Microbiologist at Dorevitch Pathology for eight years, before moving to California to work in biotechnology companies for four years. She then returned to Australia and worked as a Medical Microbiologist at the Women's and Children's Hospitals in Perth for two years.

Dr Waring is now the Director of Microbiology and Immunoserology at Melbourne Pathology.

For further information, please contact the Medical Microbiologist on 9287 7700.