Melioidosis

S. Fitzpatrick, Senior Veterinary Officer and S. Kearney, Principal Livestock Regulatory Officer, Darwin

INTRODUCTION

Melioidosis is a disease caused by the bacterium *Burkholderia pseudomallei*. It can affect several species of animals in the Top End of the Northern Territory (NT). Livestock most commonly affected include goats, pigs and camelids. It can also affect cattle and horses on rare occasions. Melioidosis is an important disease because it is a zoonosis, which means humans can be infected through contact with affected animals. Since melioidosis poses a high potential risk to human health, a veterinarian or a Livestock Biosecurity Officer should always be called to investigate suspected cases.

CAUSE

*B. pseudomallei* is found in the soil and in surface water in tropical areas. The bacteria live below the soil surface during the dry season. In the wet season they rise into ground water from where they can infect animals. The bacteria can also become airborne. They enter the body through open wounds or when contaminated water or soil is ingested. Although melioidosis is not a highly contagious disease, care needs to be taken when handling potentially infected animals. The bacteria can be shed from an animal through urine, milk and nasal secretions. As such, unpasteurised milk from an infected animal is a possible source of infection and should be avoided.

SYMPTOMS

The early stage of melioidosis has no notable symptoms. Once the bacteria spread and infiltrate organs, symptoms of the disease become noticeable. Symptoms will vary depending on the location of lesions in the animal. Common symptoms include depression, fever, weight loss, lameness and swelling of the joints, followed by death.
DIAGNOSIS AND POST MORTEM FINDINGS

Blood tests can confirm infection. However, survival of infected animals is unlikely. Provisional diagnosis is generally established through a post mortem examination and is confirmed by bacterial culture in the laboratory. Lesions or abscesses occur in major organs such as the liver, lungs, spleen, udder, joints and the nasal cavity. The pus-filled lesions vary in size and can be as large as 100 mm diameter. To minimise the risk of infection to humans, post mortem examinations of suspect cases should only be performed by veterinarians or Livestock Biosecurity Officers.

![Multiple lesions in the liver](image)

**Figure 3.** Multiple lesions in the liver

TREATMENT

Melioidosis is a fatal disease and treatment is rarely attempted in animals as it requires long term antibiotic treatment. Due to the risk to human health, affected animals should be euthanised.

CONTROL AND PREVENTION

Control and prevention of melioidosis is difficult due to the nature of the disease. Measures that may reduce disease incidence include limiting access of animals to high risk areas and/or providing drainage to prevent surface water accumulation. If goats and pigs are penned, keep them on dry solid ground or concrete.

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