Introduction

Listeriosis, caused by Listeria monocytogenes, occurs very occasionally in chickens, turkeys, pigeons and waterfowl and very sporadically in some other avian species. L. monocytogenes can cause food poisoning in man following consumption of contaminated cooked poultry products. In most of these instances the L. monocytogenes comes from the environment of the cooking plant and not from the live birds the cooked product was derived from. Contaminated dead birds or faeces from birds carrying L. monocytogenes can be a source of L. monocytogenes to ruminants, for example from litter spread or clamped in the field containing the ruminants.

The disease

Listeriosis can affect poultry as a septicaemic or encephalitic form. Septicaemic birds are emaciated and have diarrhoea, whereas birds afflicted by the encephalitic form show nervous signs including depression, incoordination, ataxia, opisthotonus and torticollis. The last of these signs is regularly seen. L. monocytogenes is frequently found in faeces and the soil and infection can occur via ingestion, inhalation or via a wound. Outbreaks of listeriosis have been seen following beak trimming.

Pathology

In the septicaemic form enlarged spleens, multifocal necrotic hepatitis, myocardial necrosis and inflammation are usually seen. Ascites and haemorrhaging in the liver, heart, spleen, kidneys and brain are seen in broilers, while in hens salpingitis is a common sequel to septicaemia. In birds affected by the encephalitic form Gram positive bacteria are seen in the mid brain, cerebellum and medulla oblongata.

Diagnosis

Diagnosis is made on the basis of clinical and post mortem findings coupled to the isolation of L. monocytogenes. There are 13 serotypes of L. monocytogenes and the majority of animal infections are caused by serotypes 1/2a, 1/2b and 4B.

Treatment

L. monocytogenes is usually resistant to the commonly used antibiotics.