International Pig Topics'
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42 – Vesicular stomatitis

Introduction

Vesicular stomatitis occurs in cattle and pigs and resembles foot and mouth disease. For that reason this disease is important and it is classified by OIE as a notifiable disease. Reports on vesicular stomatitis first appeared in the 1800s but the virus was not isolated until 1925. Closely related viruses – Cocal virus and Alagoas virus – have caused livestock disease in South America.

Epidemiology

Vesicular stomatitis affects swine, cattle and horses and antibodies to this virus have been found in a wide variety of animals. In the Americas, vesicular stomatitis often occurred in cycles until the late 1970s, since when the virus has only been found in wildlife.

This disease can be transmitted by animal to animal contact and physically or biologically by insects. In affected animals the virus is localised to areas with lesions where the virus can remain active for up to 10 days post infection. It can also remain viable in saliva for up to four days.

The disease

Fever occurs for up to three days post infection and vesicle formation occurs on the lining of the mouth, the snout, teats and the coronary bands of the hooves 1-3 days post infection. These rupture 1-2 days later. Epidermal erosion and ulceration is followed by scabbing. Lesions are most common in the mouth and result in anorexia and weight loss. The foot lesions produce lameness. Morbidity can be high but mortality is low.

Diagnosis

Clinically this disease is indistinguishable from foot and mouth, swine vesicular disease or vesicular exanthema so samples must be taken for laboratory diagnosis. Differential diagnosis should also include porcine parvovirus, enterovirus, swine pox, trauma, chemical burns and photosensitisation.

Diagnosis can be made by testing paired sera when a fourfold increase in antibody titre is regarded as being diagnostic.

Prevention and control

When found in pigs immediate steps should be taken to stop the disease spreading. Treatment is largely ineffective. All areas occupied by infected animals should be thoroughly disinfected.