



ASP

CCPA Group

Interheat

Kemin

The disease process

Viral replication is confined to the epithelial cells of the upper and lower respiratory tracts and viral excretion and transmission are by the respiratory route. In infected pigs virus can be isolated from the tissues of the respiratory tract as well as associated lymph nodes and the tonsils – usually from day one but for no longer than a week. The influenza virus prefers the lower respiratory tract in pigs.

Swine influenza virus rarely spreads from the respiratory tract although low amounts of virus can occasionally be found in the brain.

The actual cytokines produced by the influenza virus determine whether the disease is subclinical or clinical.

Clinical signs

The incubation period is 1-3 days. Typically infected pigs have high temperatures (40.5-41.5°C), inactivity, anorexia, huddling and a reluctance to stand up. Dyspnoea and laboured abdominal breathing are usually seen. Morbidity is up to 100%, but mortality is low if the infection is not complicated by secondary infections. Acute outbreaks of clinical respiratory disease are usually only seen in fully susceptible, seronegative stock.

Secondary pathogens such as *Actinobacillus pleuropneumoniae*, *Pasteurella multocida*, *Mycoplasma hyopneumoniae*, *Haemophilus parasuis* and *Streptococcus suis* type 2 can become established as secondary infections and worsen the clinical picture. Other porcine viruses frequently infect pigs at a similar time to influenza infection and these include PRRSV and PRCV.

Following influenza infection reduced reproductive performance is sometimes seen, characterised by infertility, abortion, small weak litters and stillbirths.

Lesions

In uncomplicated infection the lesions are those of a viral pneumonia, which is often confined to the apical and cardiac lobes of the lungs. Sometimes interlobular oedema is present and the airways may be filled with blood tinged fibrinous exudates.

Lung lesions can also be very mild and unremarkable.